Splunk® Enterprise 8.2.0

管理员手册

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欢迎使用 Splunk Enterprise 管理员手册

如何使用本手册

本手册介绍管理 Splunk Enterprise 的不同方法相关信息。它还为您介绍 Windows 和 *nix 的一些初始管理任务。

除非另有说明，否则本手册中的任务和流程对 Windows 和 *nix 操作系统均适用。

有关 Splunk 管理流程概述的更多信息，包括本手册中未介绍的任务（如设置用户或数据以及安全配置），请参阅本手册中的“Splunk 管理：更多内容”。

有关 Splunk 用户可使用的其他手册的列表和简单描述，请参阅“适用于 Splunk 管理员的其他手册”。

《管理员手册》介绍哪些内容

任务：	查看此处：
启动 Splunk 并进行一些初始配置	开始使用 Splunk 所需执行的全部操作，从启动 Splunk、安装许可证到将 Splunk 绑定至 IP。有关更多信息，请参阅：“如何开始”。
使用 Splunk Web 配置和管理 Splunk	Splunk Web 的概述以及如何使用 Splunk Web 来管理 Splunk。有关更多信息，请参阅“使用 Splunk Web”。
使用配置文件配置和管理 Splunk	有关配置文件的介绍：配置文件位置、如何新建和编辑文件，以及关于文件优先顺序的一些重要内容。请参阅“关于配置文件”开始操作。
使用 Splunk 命令行界面（CLI）配置和管理 Splunk	如何使用命令行界面配置 Splunk 的概述。有关更多信息，请参阅“关于 CLI”。
在 Windows 上优化 Splunk	使用 Splunk 时您应了解的一些有关 Windows 的特定事项，包括最佳部署的一些提示以及使用系统映像的相关信息。有关更多信息，请参阅“Windows 管理员简介”。
了解 Splunk 许可证	安装许可证，然后转到此处了解有关 Splunk 许可证的所有必要信息：“管理 Splunk 许可证”以获得更多信息。
熟悉 Splunk 应用	Splunk 应用的简介和概述以及如何将这些应用集成到 Splunk 配置中。有关更多信息，请参阅“认识 Splunk 应用”。
管理用户设置	“管理用户”这一章向您介绍了如何管理用户设置。 有关新建用户的更多信息，请参阅《确保 Splunk Enterprise 安全》手册中“用户和基于角色的访问控制”。

Splunk 平台管理：更多内容

《管理员手册》提供初始管理任务以及可用于管理 Splunk 软件的不同方法的相关信息。有关如何使用《管理员手册》的更多特定概述，请参阅“如何使用本手册”。

下面是初始配置之后您可能要执行的管理任务以及在何处了解更多信息。

任务：	查看此处：
执行备份	备份配置信息 备份索引数据 设置退休和归档策略
定义告警	*《告警手册》*
管理搜索任务	管理搜索任务

有关管理帮助的更多信息，请参阅下方介绍的手册。

安装和升级 Splunk Enterprise

《安装手册》介绍如何安装和升级 Splunk Enterprise。要获得特定任务相关信息，先从此处开始。

任务：	查看此处：
了解安装要求	计划您的安装
预估硬件容量需求	预估硬件需求
安装 Splunk	在 Windows 上安装 Splunk Enterprise 在 Unix、Linux 或 MacOS 上安装 Splunk Enterprise
升级 Splunk Enterprise	从早期版本升级

数据导入

“数据导入”为您提供数据导入的信息：如何使用来自外部来源的数据，以及如何增强数据价值。

任务：	查看此处：
了解如何使用外部数据	如何将数据导入 Splunk
配置文件和目录输入	获取文件和目录的数据
配置网络输入	获取网络事件
配置 Windows 输入	获取 Windows 数据
配置其他输入	其他数据导入方式
增强您的数据值	配置事件处理 配置时间戳 配置索引字段提取 配置主机值 配置来源类型 管理事件分段 使用查找和工作流动作
查看您的数据在建立索引后的显示效果	预览数据
过程改善	改善数据导入过程

管理索引和索引器

“管理索引器和群集”告诉您如何配置索引。它还介绍了如何管理维护索引的组件：索引器和索引器群集。

任务：	查看此处：
了解索引	索引概述
管理索引	管理索引
管理索引存储	管理索引存储
备份索引	备份索引数据
归档索引	设置退休和归档策略
了解群集和索引复制	关于群集和索引复制
部署群集	部署群集
配置群集	配置群集
管理群集	管理群集
了解群集架构	群集如何工作

调整 Splunk 平台部署

《分布式部署手册》介绍如何跨多个组件（例如，转发器、索引器和搜索头）分布 Splunk 平台功能。关联手册详细介绍分布式组件：

- 《转发数据手册》介绍转发器。
- 《分布式搜索手册》介绍搜索头。
- 《更新 Splunk 组件手册》阐述如何使用部署服务器和转发器管理来管理您的部署。

任务：	查看此处：
了解分布式 Splunk 平台部署	调整部署规模
针对 Splunk 平台部署执行容量规划	预估硬件需求
了解如何转发数据	转发数据
跨多个索引器进行分布式搜索	跨多个索引器搜索
更新部署	在您的环境中部署配置更新

确保 Splunk Enterprise 安全

“确保 Splunk 安全”介绍如何确保您的 Splunk Enterprise 部署的安全。

任务：	查看此处：
验证用户和编辑角色	用户和基于角色的访问控制
使用 SSL 确保数据安全	安全验证和加密
审计 Splunk 软件	审计系统活动
单一登录（SSO）与 Splunk 软件结合使用	配置单点登录
将 Splunk 软件与 LDAP 结合使用	设置使用 LDAP 进行的用户验证

Splunk 软件故障排除

《故障排除手册》提供有关 Splunk 平台故障排除的总体指导。此外，在其他手册的相关主题中还提供了针对特定问题的故障排除信息。

任务：	查看此处：
了解 Splunk 平台故障排除工具	初始步骤
了解 Splunk 日志文件	Splunk 日志文件
使用 Splunk 支持	联系 Splunk 支持
解决常见问题	一些常用方案

参考和其他信息

Splunk 文档会包含一些有用的参考，以及其他一些可能对 Splunk 软件管理员有帮助的信息来源。

参考：	查看此处：
配置文件参考	《管理员手册》中的配置文件参考
REST API 参考	《REST API 参考手册》
CLI 帮助	在 Splunk Enterprise 的安装实例中提供。有关如何调用 CLI 帮助的详细信息，请阅读《管理员手册》中的“获取 CLI 相关帮助”。
版本信息	发行说明
管理 Splunk 平台知识对象的相关信息	知识管理器手册

Splunk 平台管理员的其他手册

该*《管理员手册》*是专为 Splunk Enterprise 管理员提供重要信息和程序的几本手册中的其中一本。但它仅介绍了您使用

Splunk Enterprise 可以执行的一些基本操作。

如果您需要配置、运行和维护 Splunk Enterprise，将其作为服务提供给您自己或其他用户使用，请先阅读本手册。然后，您可以阅读其他手册以获得有关 Splunk Enterprise 管理特定领域的详细信息。

手册	涵盖内容	重要主题领域
数据导入	指定数据导入和改进 Splunk 软件处理数据的方式	**如何将数据导入 Splunk** **配置事件处理** **预览数据**
管理索引器和群集	管理 Splunk 索引器和索引器群集	**关于索引和索引器** **管理索引** **备份和归档您的索引** **关于群集和索引复制** **部署群集**
分布式部署	扩展部署以适应您所在企业的需求。	**分布式 Splunk 概述**
转发数据	将数据转发到 Splunk 中。	**转发数据**
分布式搜索	使用搜索头跨多个索引器进行分布式搜索。	**跨多个索引器搜索**
更新 Splunk 组件	使用部署服务器和转发器管理来更新 Splunk 组件，如转发器和索引器。	**在您的环境中部署更新**
确保 Splunk 安全	数据安全和用户验证	**用户验证和角色** **使用 SSL 加密和验证** **审计**
监视 Splunk Enterprise	用包含的仪表板和告警监视 Splunk Enterprise 部署并排除故障	**关于监视控制台**
故障排除	解决问题	**初始步骤** **Splunk 日志文件** **一些常用方案**
安装	安装和升级 Splunk	**系统要求** **分步安装程序** **从早期版本升级**

“学习管理 Splunk”主题会提供更详细的有关从哪里阅读特定管理任务的指导信息。

Splunk 管理员感兴趣的其他手册

除了介绍主要管理任务的手册以外，您有时可能需要阅读其他手册，具体取决于 Splunk Enterprise 安装大小和您的职责范围。这些是 Splunk Enterprise 核心文档集中的其他手册：

- **搜索教程**。该手册介绍了如何使用 Splunk 进行搜索。
- **知识管理器**。该手册介绍了如何管理 Splunk 知识对象，例如事件类型、标记、查找、字段提取、工作流动作、保存的搜索和视图。
- **告警**。该手册介绍 Splunk 的告警和监视功能。
- **数据可视化**。该手册介绍 Splunk 提供的一系列可视化。
- **搜索手册**。该手册介绍了如何搜索和使用 Splunk 搜索语言。
- **搜索参考**。该参考包含 Splunk 搜索命令的详细目录。
- **开发用于 Splunk Web 的视图和应用**。该手册介绍如何使用高级 XML 来开发视图和应用。还包含其他开发人员主题，例如自定义脚本和扩展 Splunk。
- **REST API 参考**。该手册提供了所有可公开访问的 REST API 端点信息。
- **发行说明**。在这里可以找到有关新功能、已知问题和已修复问题的信息。

更详细的 Splunk 文档

要获得全部 Splunk Enterprise 文档链接，包括以上列出的手册，请访问：**Splunk Enterprise 文档**。

要访问所有 Splunk 文档，包括应用的手册，请前往此页面：**欢迎使用 Splunk 文档**。

制作 PDF

如果您需要本手册的 PDF 版本，请单击本页左侧目录下方的红色链接**将管理员手册下载为 PDF**。即会为您动态生成手册的 PDF 版本。您可以将其保存或打印出来方便日后阅读。

Windows 管理员简介

欢迎使用!

Splunk 是一款功能强大、高效的工具，可以帮助 Windows 管理员解决 Windows 网络上出现的问题。Splunk 提供了现成可用的功能集，使其成为 Windows 管理员工具箱内的秘密武器。可以通过添加应用来增加自身功能，因此使其具有更高的可扩展性。此外，Splunk 还拥有一个不断扩大的、兴旺的用户社区。

Windows 用户如何使用本手册

本手册包括多个主题，以帮助您试验、学习、部署和充分利用 Splunk。

除非另有规定，否则本手册中的信息对 Windows 和 *nix 用户均有所帮助。如果您不了解 Windows 或 *nix 操作命令，强烈建议您查阅“在 *nix 和 Windows 上运行 Splunk 的差异”。

“在 Windows 上充分利用 Splunk”一章中，我们还提供了一些其他信息。本章适用于 Windows 用户，有助于您充分利用 Splunk，且本章还包含了下列信息。

在 Windows 上部署 Splunk 提供专用于 Windows 用户的一些注意事项和准备工作。计划部署时使用本主题。

优化 Splunk 以获得最佳性能介绍在部署期间或部署完成之后确保 Splunk 能够在 Windows 部署上正常运行的方法。

将 Splunk 加入系统映像 帮助您使 Splunk 成为每个 Windows 系统映像或安装过程的一部分。在此处，您可以找到用于将 Splunk 和 Splunk 转发器安装到系统映像上的任务。

相关信息

以下是其他 Splunk 手册中所涉及的一些其他 Windows 主题：

- 有关所有已安装的 Splunk for Windows 服务的概述（来自《安装手册》）
- Splunk 可以监视的内容（来自《数据导入手册》）
- 有关确定如何监视远程 Windows 数据的注意事项（来自《数据导入手册》）。阅读该主题以获得有关如何从多个计算机远程获取数据的重要信息。
- 合并来自多个主机的数据（来自《通用转发器手册》）

其他有用的信息：

- 我的数据位于何处？（来自《数据导入手册》）
- 使用 Splunk 的命令行界面 (CLI)（来自《数据导入手册》）
- 来源、来源类型和字段（来自《数据导入手册》）
- 字段和字段提取（来自《知识管理器手册》）

当您需要帮助时

如果您打算深入了解 Splunk 知识，我们提供有大量的教育课程。

如果您在使用过程中遇到困难，Splunk 拥有大量的免费支持基础设施为您提供帮助：

- Splunk Answers、
- Splunk 维基社区。
- Splunk Internet Relay Chat (IRC) 通道 (EFNet #splunk)。（需要 IRC 客户端）

如果问题仍然未能解决，您可以联系 Splunk 的支持团队。“联系支持”页面上提供了具体的做法。

注意：社区级别以上的支持级别需要具备 Enterprise 许可证。要获得此许可证，您需要联系我们的销售团队。

优化 Splunk Enterprise 获取最佳性能

本主题介绍了一些标准，这些标准可协助系统管理员实施或扩展 Splunk Enterprise 基础结构并保持一致的性能：

- **指定一台或多台计算机来单独运行 Splunk Enterprise 实例。**Splunk 具有横向伸缩性。与为单个计算机分配更多资源相比，为 Splunk Enterprise 添加更多专用的物理计算机可带来更好的性能。尽量跨多台计算机拆分索引和搜索活动，并在每台计算机上只运行一个 Splunk Enterprise 组件。在与其他服务共享资源的计算机上运行 Splunk Enterprise 时，性能会降低。

- **针对 Splunk 索引使用专用高速磁盘。**用于 Splunk 建立索引的系统可用磁盘越快，Splunk Enterprise 搜索的运行速度也越快。尽量使用主轴转速超过 10,000 RPM 的磁盘或 SSD。如需针对 Splunk 使用冗余存储，使用基于硬件的 RAID 1+0（也称为 RAID 10）。它提供了速度和冗余性之间的最佳平衡。

- **不允许防毒程序扫描用于运行 Splunk 服务的磁盘。**当防病毒产品在访问时扫描文件中是否有病毒时，Splunk 服务的性能会大大降低，尤其是随着近期建立索引的数据的老化，情况更明显。如果您要在运行 Splunk Enterprise 的服务器上使用防毒程序，则必须确保所有 Splunk 软件目录和程序被排除在访问文件时的扫描之外。

- **尽量使用多个索引。**将由 Splunk 建立索引的数据分散到不同索引中。将所有数据发送到一个索引可能会导致系统出现 I/O 瓶颈，并使保留计算和访问控制复杂化。有关如何配置索引的信息，请参阅*《管理索引器和索引器群集》*手册中的“配置您的索引”。

- **不要将您的索引存储在操作系统所在的同一物理磁盘或卷上。**不建议将存储有操作系统或其交换文件的磁盘用于 Splunk Enterprise 数据存储。请将索引放在计算机上安装的其他磁盘或卷上。有关索引存储方式的更多信息，包括数据库数据桶类型以及 Splunk 如何存储与老化这些项目的信息，请参阅*《管理索引器和索引器群集》*手册中的“Splunk 如何存储索引”。

- **不要将索引的热/温数据桶存储在网络卷上。**网络延迟会导致索引性能显著降低。始终用速度较快的本地磁盘来存储索引热数据桶和温数据桶。您可以使用分布式文件系统 (DFS) 卷或网络文件系统 (NFS) 装入点为索引的冷数据桶和冻结数据桶指定网络共享。但是，如果搜索涉及存储于网络卷上的数据，则速度会变慢。

- **保持索引器的磁盘可用性、带宽和可用空间。**确保保存索引的磁盘卷或挂载始终有可用空间。磁盘性能会随着可用空间的减少而降低，并且磁盘查找时间会增加。存储变慢会影响 Splunk Enterprise 为数据建立索引的速度，并会影响搜索结果、报表和告警的返回速度。默认情况下，包含索引的卷或挂载必须有约 5 GB 的可用磁盘空间，否则建立索引的操作会停止。

在 *nix 和 Windows 上运行 Splunk 的差异

本主题将阐明当 Splunk 运行的状况下，您在 *nix 和 Windows 操作系统上会遇到的功能差异。这里不会深入探讨到技术性的比较，也不会鼓吹或偏爱任何操作系统，而是旨在说明在不同操作系统特定的 Splunk 手册页面上为何内容有所不同。

路径

在 *nix 操作系统处理文件和目录的方式上的主要差异，就是在路径名中用于分隔文件或目录的斜线类型有所不同。*nix 系统使用正斜线 ("/")。另一方面，Windows 使用反斜线 ("\")。

*nix 路径示例：

```
/opt/splunk/bin/splunkd
```

Windows 路径示例：

```
C:\Program Files\Splunk\bin\splunkd.exe
```

环境变量

另一项差异是这两种操作系统在环境变量表示上有所不同。两种操作系统均采用各自的方法暂时存储在一个或多个环境变量中的数据。在 *nix 系统上，这是通过在环境变量名称之前加上美元符号 ("$") 来表示，例如：

```
# SPLUNK_HOME=/opt/splunk; export $SPLUNK_HOME
```

在 Windows 上则稍微有点不同——您需要使用百分号 ("%") 指定环境变量。根据您使用的环境变量类型，您可能需要将一个或两个百分号放在环境变量名称之前或名称的两侧。

```
> set SPLUNK_HOME="C:\Program Files\Splunk"
> echo %SPLUNK_HOME%
C:\Program Files\Splunk
>
```

要在 Windows 环境中设置 %SPLUNK_HOME% 变量，您可以采用以下两种方法之一：

- 编辑位于 %SPLUNK_HOME%\etc 中的 splunk-launch.conf。

- 通过访问“环境变量”窗口来设置变量。打开“资源管理器”窗口，在左窗格中右键单击“我的电脑”，然后从显示的窗口中选择“属性”。在出现“系统属性”窗口之后，选择“高级”选项卡，然后单击标签窗口底部的“环境变量”按钮。

配置文件

Splunk Enterprise 与使用 ASCII/UTF-8 字符集编码的配置文件结合使用。在 Windows 中编辑配置文件时，将文本编辑器配置为利用此编码写文件。在一些 Windows 版本中，UTF-8 不是默认字符集编码。请参阅“如何编辑配置文件”。

配置 Splunk 软件的方法

Splunk 软件在一组**配置文件**中维护配置信息。您可以使用以下任一（或全部）方法配置 Splunk：

- 使用 Splunk Web。
- 使用 Splunk 的命令行界面（CLI）命令。
- 直接编辑 Splunk 的配置文件。
- 使用通过 Splunk REST API 来更新配置的应用设置屏幕。

上述所有方法都更改基本配置文件的内容。在不同情况下，您可能发现不同的便利方法。

使用 Splunk Web

您可以在 Splunk Web 中执行大多数常用配置任务。默认情况下，Splunk Web 在安装该 Web 的主机的端口 8000 上运行：

- 如果在本地计算机上运行 Splunk，则访问 Splunk Web 的 URL 是 http://localhost:8000。
- 如果在远程计算机上运行 Splunk，则访问 Splunk Web 的 URL 是 http://<hostname>:8000，其中 <hostname> 是运行 Splunk 的计算机的名称。

管理菜单位于 Splunk Web 菜单栏中的**设置**下。Splunk 文档集中介绍的大多数任务均是针对 Splunk Web。有关 Splunk Web 的更多信息，请参阅“认识 Splunk Web”。

编辑配置文件

大多数 Splunk 配置信息存储在 .conf 文件中。这些文件位于 Splunk 安装目录（在文档中通常称为 $SPLUNK_HOME）下的 /etc/system 下。大多数情况下，可将这些文件复制到本地目录并使用首选的文件编辑器对其进行更改。

在开始编辑配置文件之前，请阅读“关于配置文件”。

使用 Splunk CLI

许多配置选项可通过 CLI 提供。这些选项记录在本手册的 CLI 章节中。也可以在 Splunk 运行时使用 help 命令来获取 CLI 帮助参考：

```
./splunk help
```

有关 CLI 的更多信息，请参阅本手册中的“关于 CLI”。如果您不熟悉 CLI 命令或在 Windows 环境下工作，也应查阅在“*nix 和 Windows 上运行 Splunk 的差异”。

应用的设置页面

开发人员可以创建应用的设置页面，允许用户设置此应用的配置，而不必直接编辑配置文件。利用设置页面，可以更为轻松地将应用分布到不同的环境，或者根据特定使用情况自定义应用。

设置页面使用 Splunk 的 REST API 来管理应用的配置文件。

有关设置页面的更多信息，请参阅 Splunk 开发人员门户中的“使用 Splunk Cloud 或 Splunk Enterprise 中的设置页面启用应用配置”。

管理分布式环境

Splunk 部署服务器为分布式环境提供集中管理和配置。您可以使用它将配置文件集或其他内容部署到覆盖整个企业的 Splunk 实例组。

有关管理部署的信息，请参阅“更新 Splunk 组件”手册。

在 Windows 上充分利用 Splunk Enterprise

在 Windows 上部署 Splunk Enterprise

您可以通过多种方法将 Splunk 集成到 Windows 环境中。本主题介绍其中一些方案，并提供了有关如何确保 Splunk for Windows 部署适应企业环境的指南。

本主题更侧重于在 Windows 环境中部署 Splunk，即使您将其集成到 Windows 企业环境中，Splunk 本身也有需要注意的分布式部署操作。《分布式部署手册》包含有关在多台计算机上分散运行 Splunk 服务的大量信息。

当大规模地在 Windows 上部署 Splunk 时，您可以完全依赖自身的部署实用工具（如 System Center Configuration Manager 或 Tivoli/BigFix）在企业内部的计算机上部署 Splunk 及其配置。或者，您也可以将 Splunk 集成到系统映像中，然后通过 Splunk 的部署服务器来部署 Splunk 配置和应用。

概念

当您将 Splunk 部署到您的 Windows 网络中时，Splunk 会捕获来自计算机的数据并集中存储。数据就位之后，您就可以针对已建立索引的数据来执行搜索和新建报告与仪表板等。对于系统管理员而言，更重要的是当数据到达时 Splunk 可以发送告警以通知您正在发生什么。

在典型的部署中，您可以将某些硬件专门用于 Splunk 建立索引，然后使用通用转发器与 Windows Management Instrumentation（WMI）的组合收集来自企业内部其他计算机的数据。

注意事项

在 Windows 企业环境中部署 Splunk 需要大量的规划步骤。

首先，您必须对您的企业环境进行清点，从物理网络开始，然后确定该网络上不同计算机的单独配置情况。包括但不限于：

- 统计企业环境中的计算机数量，并确定其中需要安装 Splunk 的子集。这将定义您的 Splunk 拓扑结构的初始框架。
- 计算网络带宽，包括主要站点和任何远程或外部站点的带宽。这将确定您将要安装主 Splunk 实例的位置，以及使用 Splunk 转发器的位置和方法。
- 评估当前的网络运行状况，尤其是网络分隔区域。确保边缘路由器和交换机运行正常，以便设定部署期间和之后的网络性能基准。

然后，您必须在开始部署之前回答众多问题，其中包括：

- **您的计算机上哪些数据需要建立索引？您需要针对其中哪部分数据执行搜索、报告或告警？**这可能是最需要认真考虑的重要因素。通过回答这些问题，您将确定如何解决其他需要注意的事项。这可以确定安装 Splunk 的位置，以及您在这些安装中要使用的 Splunk 类型。还可以确定 Splunk 可能使用多少计算能力和网络带宽。

- **网络布局如何？所有外部站点的链路配置如何？这些链路使用哪种安全性？**充分了解您的网络拓扑结构，有助于确定您需要在哪些计算机上安装 Splunk，以及根据网络决定应该要在这些计算机上安装哪种类型的 Splunk（索引器或转发器）。

对于 LAN 或 WAN 链路较为薄弱的站点，有必要考虑在不同站点之间传输多大的 Splunk 数据量。例如，如果您具有轴幅式网络，即一个中心站点连接到多个分支站点，则最好在分支站点的计算机上部署转发器，以向每个分支站点内的一个中间转发器发送数据。然后，中间转发器会将数据发回到中央站点。这与让分支站点内所有计算机都向中央站点的索引器发送数据的做法相比成本更低。

如果外部站点具有文件、打印或数据库服务，那么您还需要考虑这些流量。

- **您的 Active Directory（AD）是如何配置的？**在您的域控制器（DC）上操作主机角色是如何定义的？是否所有域控制器都位于中央站点，或者是否有控制器位于卫星站点？如果您的 AD 为分布式结构，那么桥头服务器是否配置正确？站点间拓扑生成器（ISTG）角色的服务器是否工作正常？如果您在运行 Windows Server 2008 R2，那么在分支站点内是否设有只读域控制器（RODC）？如果已设置，则需要考虑 AD 复制流量以及 Splunk 和其他网络流量的影响。

- **网络中的服务器是否还扮演其他哪些角色？**Splunk 索引器需要资源来保持最佳性能运行，如果与其他耗费资源型应用程序或服务（如 Microsoft Exchange、SQL Server 乃至 Active Directory 本身）共享服务器，则在这些计算机上部署 Splunk 可能会出现问题。有关与 Splunk 索引器共享服务器资源的其他信息，请参阅《容量规划手册》中的“适用于 Splunk Enterprise 的容量规划的介绍”。

- **如何通知用户部署情况？**Splunk 安装意味着环境的改变。某些计算机将会安装新的软件，这取决于 Splunk 的部署方式。用户可能会误将这些新安装的软件与其计算机上已知的问题或速度变慢相关联。如有任何变动应通知用户，以减少部署相关的支持请求。

准备在 Windows 上部署 Splunk

如何将 Splunk 部署到当前环境中，取决于您对 Splunk 的需求（并与可用计算资源保持平衡）、您的物理和网络布局以及企业基础设施。由于并不存在一种特定的 Splunk 部署方法，因此也没有可供遵循的分步说明。不过，您可以遵循一些通用指南。

要成功地部署 Splunk，您需要执行以下操作：

- **准备您的网络。**将 Splunk 集成到环境之前，您需要执行以下操作：
    - 确保网络运行正常，所有开关、路由器和线缆配置无误。
    - 更换任何损坏或故障设备。
    - 确保所有虚拟 LAN (VLAN) 设置无误。
    - 测试网络吞吐量，尤其是薄弱的网络链路站点之间的网络吞吐量。

- **准备您的 Active Directory。**尽管 AD 并不是运行 Splunk 所必需的，但最好在部署之前确保其工作正常。包括但不限于：
    - 确定所有域控制器及其可能执行的操作主机角色。如果在分支站点内设有 RODC，则应确保其与操作主机 DC 之间具有目前最快的连接。
    - 确保 AD 复制运行正常，并且所有站点链路具有一个包含全局目录副本的 DC。
    - 如果您的林划分为多个站点，则应确保 ISTG 角色服务器运行正常，或者站点内至少分配了两个桥头服务器（一个主服务器和一个备份服务器）。
    - 确保 DNS 基础设施运行正常。

您可能需要将 DC 放在网络中的不同子网上，必要时捕获灵活单一主机操作（FSMO 或操作主机）角色，以在部署过程中确保最佳的 AD 操作和复制性能。

- **定义您的 Splunk 部署。**在 Windows 网络准备就绪之后，接下来您必需决定 Splunk 在网络中的部署位置。考虑以下方面：
    - 确定需要 Splunk 在每台计算机上为其建立索引的数据集，以及是否需要 Splunk 针对任何收集到的数据发出告警。
    - 尽量在每个网路段中专门指定一台或多台计算机来处理 Splunk 索引操作。有关分布式 Splunk 部署的容量规划的其他信息，请参阅《容量规划手册》中的“适用于 Splunk Enterprise 的容量规划介绍”。
    - 不要在运行耗费资源型服务（例如：AD，尤其是执行 FSMO 角色的 DC；任何版本的 Exchange、SQL Server；Hyper-V 或 VMWare 等计算机可视化产品）的计算机上安装完整的 Splunk。相反，应使用通用转发器，或通过 WMI 连接到这些计算机。
    - 如果您正在运行 Windows Server 2008/2008 R2 Core，请注意您在这些计算机上安装 Splunk 之后，将无法在 GUI 上使用 Splunk Web 进行更改。
    - 合理部署 Splunk，以确保使用最小资源网络，尤其是对于较为薄弱的 WAN 链路。通用转发器可以明显减少在网络上发送的 Splunk 相关流量。

- **将部署计划告知用户。**在整个部署过程中，通知用户部署状态这一点非常重要。这样可以显著减少将来收到的支持请求数量。

将 Splunk Enterprise 加入系统映像

本主题介绍了有关使 Splunk Enterprise 成为每个 Windows 系统映像或安装过程的一部分的概念。它还引导您完成大致的集成过程，不论您使用何种映像工具。

- 有关将 Windows 数据导入 Splunk 平台的更多信息，请参阅*《数据导入》*手册中的“使用 Splunk Enterprise 监视 Windows 数据”。
- 有关分布式 Splunk Enterprise 部署的信息，请参阅*《分布式部署手册》*中的“分布式概述”。这也是您了解如何实施 Splunk 平台部署的必读内容（不论您采用哪种操作系统）。关于 Splunk Enterprise 的分布式部署功能的信息，请参阅*《更新 Splunk Enterprise 实例》*中的“关于部署服务器和转发器管理”
- 有关如何规划大规模 Splunk 平台部署的信息，请参阅*《容量规划手册》*中的“适用于 Splunk Enterprise 的容量规划介绍”和本手册中的“在 Windows 上部署 Splunk”。

将系统集成到 Windows 上的概念

将 Splunk Enterprise 集成到 Windows 系统映像中的主要目的在于确保当在企业中启用计算机时能够立即使用 Splunk Enterprise。这样，您无需在计算机启用之后安装和配置 Splunk Enterprise。

在此方案中，启动 Windows 系统之后，开机后会立即启动 Splunk Enterprise。然后，根据所安装 Splunk Enterprise 实例的类型与配置，Splunk Enterprise 要么收集该计算机的数据并转发给某个索引器（多数情况下），要么开始对那些从其他 Windows 计算机转发过来的数据建立索引。

系统管理员还可以配置 Splunk Enterprise 实例与某个**部署服务器**进行通信，以便执行后续配置和更新管理。

在许多典型环境中，在 Windows 计算机上的通用转发器会向某个中央索引器或一组索引器发送数据，然后根据您的特定需求，针对这些数据执行搜索、报告和告警。

系统集成注意事项

将 Splunk Enterprise 集成到 Windows 系统映像中需要进行规划。

大多数情况下，集成到 Windows 系统映像中的首选 Splunk Enterprise 组件是**通用转发器**。通用转发器专门用于在执行其他角色的计算机上共享资源，并以非常低的成本来执行索引器可执行的大量工作。您还可以通过部署服务器或某个企业内配置管理器来修改转发器的配置，而无需使用 Splunk Web 来做出更改。

在某些情况下，您可能需要将整个 Splunk Enterprise 实例集成到系统映像中。这种做法的场合和时机是否适当，取决于您的特定需求和资源可用性。

您不应在执行任何其他类型的角色的服务器的系统映像中包含 Splunk Enterprise 的完整版本，除非您需要的是索引器而不是转发器的操作。在企业中安装多个索引器并不会带来额外的索引能力或速度，相反可能带来意外的结果。

在将 Splunk Enterprise 集成到系统映像中之前，请考虑：

- **您希望使用 Splunk Enterprise 建立索引的数据量，以及希望 Splunk Enterprise 将这些数据发送到何处（如适用）**。这将直接用于计算磁盘空间且应当是最重要的注意事项。
- **要在映像或计算机上安装的 Splunk Enterprise 实例类型**。在执行其他职责的工作站或服务器上安装通用转发器具有显著的优点，但在某些情况下可能不太适合。
- **在安装映像的计算机上可用的系统资源**。在每个映像系统上有多少可用磁盘空间、RAM 和 CPU 资源？是否支持安装 Splunk Enterprise?
- **您的网络资源需求**。不论您是使用 WMI 来将其连接到远程计算机以集合数据，或是在每台计算机上安装转发器并向索引器发送数据，Splunk Enterprise 都需要网络资源。
- **安装在映像中的其他程序的系统要求**。如果 Splunk Enterprise 与另一个服务器共享资源，则它可能会占用其他程序的可用资源。考虑是否应在运行完整 Splunk Enterprise 实例的工作站或服务器上安装其他程序。因为通用转发器采用轻型设计，所以更适用这种情况。
- **安装映像的计算机在您的环境中所扮演的角色**。是否将成为只运行像 Office 这样的生产力应用程序的工作站？或者，将成为适用于 Active Directory 林的操作主机域控制器？

将 Splunk Enterprise 集成到系统映像中

在确定上述检查表中问题的答案之后，下一步是将 Splunk Enterprise 集成到系统映像中。这里列出了大致的步骤，因此您可以使用您喜好的系统映像或配置工具来完成该任务。

从下列系统集成选项中选择一项：

- 将通用转发器集成到系统映像中
- 将 Splunk Enterprise 的完整版本集成到系统映像中

将通用转发器集成到系统映像中

本主题介绍了将 Splunk 通用转发器集成到 Windows 系统映像中的程序。有关将 Splunk Enterprise 集成到映像中的其他信息，请参阅“将 Splunk Enterprise 集成到系统映像中”。

安装和配置 Windows 和应用程序

1. 使用基准计算机，根据您的需要安装并配置 Windows，包括安装任何所需的 Windows 功能、服务包和其他组件。
2. 安装并配置所需的应用程序，同时兼顾 Splunk 的系统和硬件容量需求。
3. 通过命令行安装和配置通用转发器。进行安装时，至少要提供 `LAUNCHSPLUNK=0` 命令行标记。
4. 继续到安装的图形部分，选择想要的输入、部署服务器和/或转发器目标。
5. 安装完成后，打开命令提示符或 PowerShell 窗口。

编辑配置并运行 clone-prep-clear-config

1. （可选）编辑不可在安装程序中配置的配置文件。
2. 更改至通用转发器 `bin` 目录。
3. 运行 `./splunk clone-prep-clear-config`。
4. 退出命令提示符或 PowerShell 窗口。
5. 在“服务控制面板”中，将启动类型设为 "Automatic"，配置 `splunkd` 服务自动启动。
6. 使用诸如 Windows System Image Manager (WSIM) 等工具来准备系统映像以便加入域。Microsoft 建议使用 `SYSPREP` 或 WSIM 以在复制之前更改计算机安全标识符 (SID)，这与使用第三方工具（如 Ghost Walker 或 NTSID）的做法相反。

复制和恢复映像

1. 重新启动计算机并使用您最喜欢的映像工具复制。

2. 复制映像后，使用映像工具将其恢复到其他物理或虚拟计算机上。
3. 运行复制的映像。Splunk 服务自动启动。
4. 使用 CLI 重新启动 Splunk Enterprise，以删除 `cloneprep` 信息：

   Splunk 重新启动

   您必须从 CLI 重新启动 Splunk Enterprise，以删除 `cloneprep` 文件。重新启动 Splunk 服务不会进行删除。

5. 确认已删除 `$SPLUNK_HOME\cloneprep` 文件。

接下来您就可以部署映像了。

将完整的 Splunk Enterprise 集成到系统映像中

本主题介绍了将 Splunk 的完整版本集成到 Windows 系统映像中的程序。有关将 Splunk 集成到映像中的其他信息，请参阅本手册中的“将 Splunk 加入系统映像”。

要将 Splunk 的完整版本集成到系统映像中：

1. 使用基准计算机，根据您的需要安装并配置 Windows，包括安装任何所需的 Windows 功能、修补程序和其他组件。

2. 安装并配置任何所需的应用程序，同时兼顾 Splunk 的系统和硬件容量需求。

3. 安装和配置 Splunk。

重要提示：您可以使用 GUI 安装程序来进行安装，但使用命令行中安装软件包的可用选项更多。

4. 配置 Splunk 输入之后，请打开命令提示符。

5. 从该提示符下，切换到 `%SPLUNK_HOME%\bin` 目录并发出 `.\splunk stop`

6. 发出 `.\splunk clean eventdata` 以清除所有事件数据。

7. 关闭命令提示符窗口。

8. 确保将 `splunkd` 和 `splunkweb` 服务均设为自动启动。为此，您需要在“服务控制面板”中将其启动类型设为 'Automatic'。

9. 使用诸如 SYSPREP（适用于 Windows XP 和 Windows Server 2003/2003 R2）和/或 Windows 系统映像管理器 (WSIM)（适用于 Windows Vista、Windows 7 和 Windows Server 2008/2008 R2）等工具来准备系统映像以便加入域。

注意：Microsoft 建议使用 SYSPREP 和 WSIM 以在复制之前更改计算机安全标识符 (SID)，这与使用第三方工具（如 Ghost Walker 或 NTSID）的做法相反。

10. 配置好用于新建映像的系统之后，重启计算机并使用您喜好的映像工具来复制映像。

接下来您就可以部署映像了。

使用 Splunk Web 管理 Splunk Enterprise

启动 Splunk Web

Splunk 运行后，您就可以启动 Web 界面 **Splunk Web** 了。要了解更多 Splunk Web 相关信息，请参阅：

- 使用 Splunk Web 管理任务
- 浏览 Splunk Web
- 使用 Splunk 搜索

要启动 Splunk Web，请导航到：

```
http://mysplunkhost:<port>
```

使用您在安装期间选择的主机和端口。

当您使用 Enterprise 许可证首次登录 Splunk 时，以您在安装时新建的管理员身份登录：
用户名 - *admin*
密码 - <password>

Splunk Free 不具有访问控制，因此不会提示您输入登录信息。

您无法通过远程浏览器访问 Splunk Free，除非您已编辑 `$SPLUNK_HOME/etc/local/server.conf` 并将 `allowRemoteLogin` 设置为 `Always`。如果您在运行 Splunk Enterprise，则默认禁止管理员用户远程登录（设为 `requireSetPassword`），除非您更改了默认密码。

使用 Splunk Web 管理任务

Splunk Web 是一个基于浏览器的 Splunk 平台界面。下面是您在 Splunk Web 中可以执行的几项操作：

- 配置数据导入
- 搜索数据和报表并可视化结果
- 调查问题
- 在本机或通过 LDAP 策略管理用户
- Splunk 部署故障排除
- 管理群集和对等节点

参考系统要求以获得所支持的操作系统和浏览器列表。

Splunk 设置菜单

Splunk Web 提供了一个方便的界面来管理大多数 Splunk 平台操作。大多数功能均可通过单击菜单中的**设置**来访问。您可以在此：

管理数据

在**设置** > **数据**下，您可以执行以下操作：

- **数据输入**使您可以查看数据类型列表并配置这些数据类型。要添加输入，请单击“数据导入”页面中的**添加数据**按钮。有关如何添加数据的更多信息，请参阅*《数据导入》*手册。
- **转发和接收**使您可以设置转发器和接收器。有关设置转发和接收的更多信息，请参阅《转发数据》手册。
- **索引**使您可以添加、禁用和启用索引。
- **报表加速摘要**使您访问搜索和报表应用，以查看现有的报表摘要。有关新建报表摘要的更多信息，请参阅*《知识管理器手册》*。

管理用户和用户验证

通过导航到**设置** > **用户和验证** > **访问控制**，您可以执行以下操作：

- 新建和管理用户
- 定义和分配角色
- 设置 LDAP 验证策略

有关与用户合作和验证的更多信息，请参阅*《确保 Splunk Enterprise 安全》*。

使用应用

要查看您已安装的**应用**，请选择菜单栏中的**应用**。

在此页面上，您可以从已经安装且当前可用的应用列表中选择一个应用。您还可以从此处访问下列菜单选项：

- **查找更多应用**使您可以搜索并安装其他应用。
- **管理应用**使您可以管理现有应用。

您还可以从“主页”页面访问所有应用。

有关应用的更多信息，请参阅“开发用于 Splunk Web 的视图和应用”。

管理系统的各个方面

设置 ＞ 系统下的选项允许您执行以下操作：

- **服务器设置**使您可以管理 Splunk 平台设置，如端口、主机名、索引路径、电子邮件服务器以及系统登录和部署客户端信息。有关使用 Splunk Web 配置和管理分布式环境的更多信息，请参阅《更新 Splunk 组件》手册。
- **服务器控件**使您可以重新启动 Splunk 平台。
- **许可授权**使您可以管理 Splunk 许可证并延长其有效期。

Splunk Enterprise 摘要仪表板

摘要仪表板是您在进入“搜索和报表”应用之后首先看到的内容。该仪表板提供了一个搜索栏和时间范围挑选器，用来输入并运行初始搜索。

当您将某个输入添加到 Splunk 时，该输入将与您当前使用的应用建立关联。某些应用（例如 *nix 和 Windows 应用）会将输入数据写入到特定索引（对于 *nix 和 Windows，此为 **os** 索引）。如果您要查看摘要仪表板，但看不到那些您确定其位于 Splunk 中的数据，请确保您查看的索引正确。

您可能需要将某个应用使用的索引添加到您当前角色的默认索引列表。有关角色的更多信息，请参阅《确保 Splunk 安全》中关于角色的此主题。有关摘要仪表板的更多信息，请参阅《搜索教程》。

自定义 Splunk Web 消息

您可以通过以下两种方式之一修改 Splunk Web 中显示的通知：

- 您可以添加和编辑在**消息**菜单中显示的自定义通知文本。
- 您可以针对 Splunk Enterprise 生成的某些错误或警告消息设置目标用户。

添加或编辑自定义通知

您可以添加自定义消息到 Splunk Web 中，如通知用户计划的维护。您需要管理员或系统用户级别权限来添加或编辑自定义通知。

要添加或更改自定义通知：

1. 选择**设置 > 用户界面**。
2. 单击**新建**以新建消息，或单击**公告消息**并选择您想要编辑的消息。
3. 为新消息命名或编辑消息文本，或编辑现有文本。
4. 单击**保存**。用户访问菜单中的**消息**时，消息立刻会出现。

为 Splunk Enterprise 消息设置目标用户

对于出现在 Splunk Web 中的某些消息，您可以控制哪些用户可以看到消息。

如果默认为仅具有特定功能（如 `admin_all_objects`）的用户才能看到某条消息，您可以通过设置使更多用户看到此消息，而无需授予这些用户 `admin_all_objects` 功能。或您可以减少看到消息的用户。

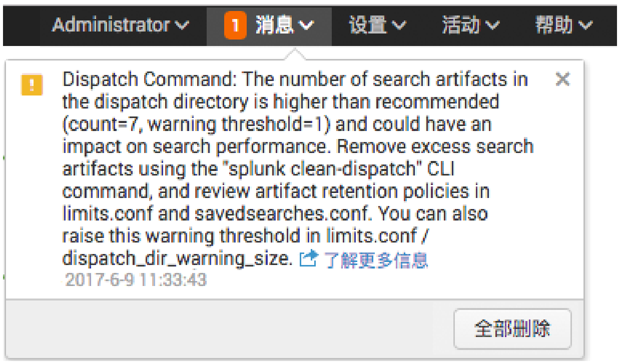
您配置的消息必须出现在 `messages.conf` 中。您可以通过修改 `messages.conf` 中的设置，按角色或操作设置消息的目标用户。

识别对目标用户范围可用的消息

您限制的消息必须出现在 `messages.conf` 中。并非所有消息都在 `messages.conf` 中。如果消息中包含了“了解更多”链接，则该消息存在于 `messages.conf` 中且可配置。如果消息中不包括“了解更多”链接，可能会也可能不会存在于 `messages.conf` 中，也

不一定可配置。

例如，下面截图中的消息包含一条“了解更多”链接：



Dispatch Command: The number of search artifacts in the dispatch directory is higher than recommended (count=7, warning threshold=1) and could have an impact on search performance. Remove excess search artifacts using the "splunk clean-dispatch" CLI command, and review artifact retention policies in limits.conf and savedsearches.conf. You can also raise this warning threshold in limits.conf / dispatch_dir_warning_size. 了解更多信息
2017-6-9 11:33:43

您选择想要配置的消息之后，检查该消息是否可配置。在 *nix 上的 `$SPLUNK_HOME/etc/system/default/messages.conf` 中或 Windows 上的 `%SPLUNK_HOME%\etc\system\default\messages.conf` 中搜索部分消息字符串。该消息字符串是段落中的设置。段落名称是一个消息标识符。记下将在您自定义 `messages.conf` 副本中使用的段落名称。切勿编辑 `default` 目录中的配置文件。

例如，在默认 messages.conf 中搜索上方显示的示例消息中的文本，如 "artifacts"，将带您前往以下段落：

```
[DISPATCHCOMM:TOO_MANY_JOB_DIRS__LU_LU]
message      = The number of search artifacts in the dispatch directory is higher than recommended (count=%lu, warning
threshold=%lu) and could have an impact on search performance.
action       = Remove excess search artifacts using the "splunk clean-dispatch" CLI command, and review artifact retention
policies in limits.conf and savedsearches.conf. You can also raise this warning threshold in limits.conf /
dispatch_dir_warning_size.
severity     = warn
capabilities = admin_all_objects
help         = message.dispatch.artifacts
```

该消息的段落名称是 `DISPATCHCOMM:TOO_MANY_JOB_DIRS__LU_LU`。

关于编辑 messages.conf

修改 `messages.conf` 的最佳实践是使用自定义应用。将包含消息更改的应用部署到您的部署中的每个实例。切勿编辑 `default` 目录中的配置文件。

请参阅“如何编辑配置文件”。

按功能为消息设定范围

通过编辑消息的 `messages.conf` 段落中的 `capabilities` 属性，设置查看消息所需的功能。用户要查看消息，必须具备列出的所有功能。

例如，

```
[DISPATCHCOMM:TOO_MANY_JOB_DIRS__LU_LU]
capabilities = admin_all_objects, can_delete
```

有关功能列表及其定义，请参见*《确保 Splunk Enterprise 安全》*中的“关于定义带功能的角色”。

如果为消息设置了角色属性，则该属性优先于功能属性。将忽略该消息的功能属性。

请参见 messages.conf.spec。

按角色为消息设定范围

通过编辑消息的 `messages.conf` 段落中 `roles` 属性，设置查看消息所需的角色。如果用户属于任何角色，则消息对其可见。

如果为消息设置了角色属性，则该属性优先于功能属性。将忽略该消息的功能属性。

例如：

```
[DISPATCHCOMM:TOO_MANY_JOB_DIRS__LU_LU]
roles = admin
```

请参阅*《确保 Splunk Enterprise 安全》*中的“关于配置基于角色的用户访问权限”。

显示全局横幅

Splunk Enterprise 允许您显示全局横幅，该横幅在产品的所有 UI 页面上对所有用户可见。全局横幅功能让非常重视安全问题的组织能够显示在某些环境中运行 Splunk 软件所需的站点分类消息。例如，您可以显示全局横幅，告诉用户他们正在使用安全或分类站点。

全局横幅的主要用例是长期显示站点分类消息，但您可以使用它来显示任何类型的通知，只要这些通知要传递长期需要高可见度的消息。例如，您可以使用全局横幅针对以下事项通知用户：

- 新功能
- 软件版本升级
- 计划的维护或停机时间
- 数据中断

Splunk Web 公告消息适用于大多数不需要持续显示全局消息的产品内通知。有关公告消息的更多信息，请参阅“自定义 Splunk Web 消息”。

Splunk Enterprise 仅支持单个全局横幅的显示。全局横幅不会出现在 Splunk Enterprise 登录页面上，并且用户无法关闭产品内的横幅。

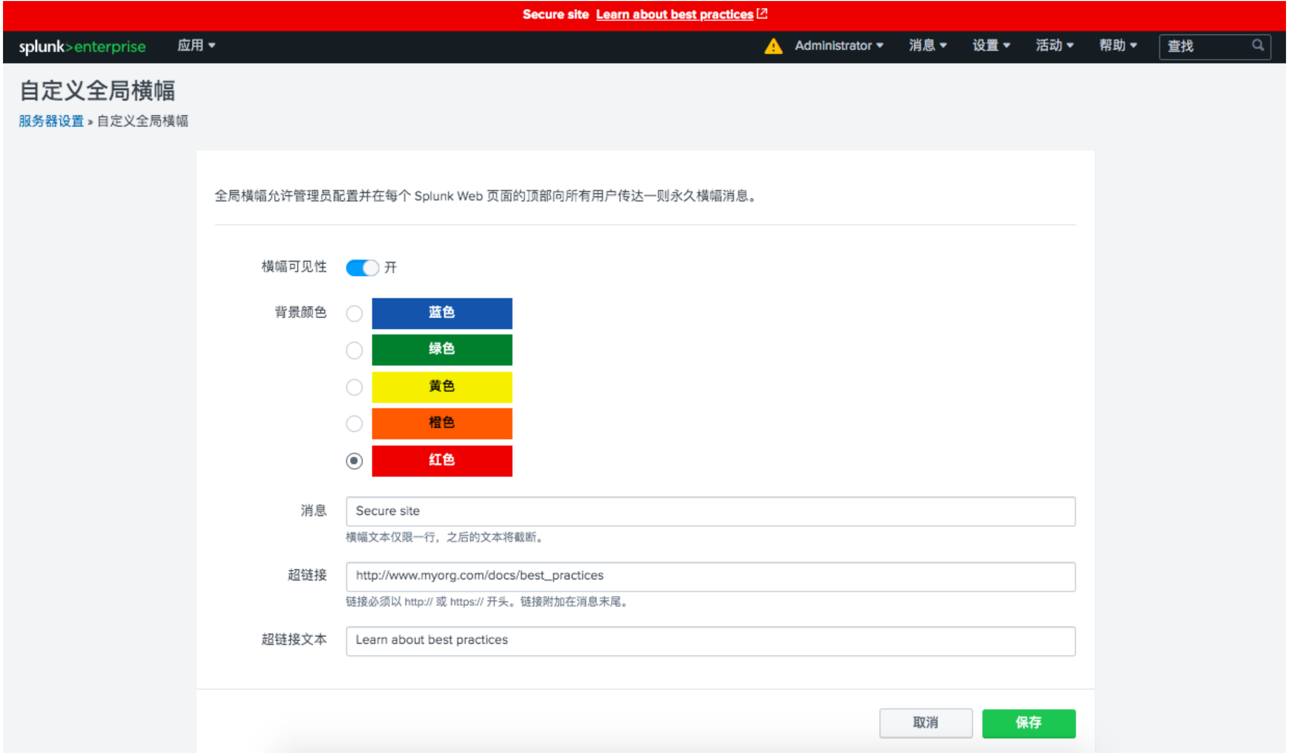
自定义全局横幅

您可以使用 Splunk Web、REST 或配置文件启用和自定义全局横幅。

要自定义全局横幅，角色必须有 `edit_global_banner` 功能。默认情况下此功能会分配给 `admin` 和 `sc_admin` 角色。

使用 Splunk Web 自定义全局横幅

1. 在 Splunk Web 中，单击**设置** > **服务器设置** > **全局横幅**。
2. 将**横幅可见性**开关切换为“开”。
3. 选择全局横幅的背景色。
4. 输入您的消息文本。
5. （可选）指定 URL 以生成指向其他信息的超链接，例如相关的最佳做法文档。
6. 输入超链接的文本。例如，“了解最佳做法”。
   自定义的全局横幅现已显示在 Splunk Enterprise 的所有 UI 页面中。



自定义全局横幅

服务器设置 » 自定义全局横幅

全局横幅允许管理员配置并在每个 Splunk Web 页面的顶部向所有用户传达一则永久横幅消息。

横幅可见性 开

背景颜色
○ 蓝色
○ 绿色
○ 黄色
○ 橙色
● 红色

消息 Secure site

横幅文本仅限一行，之后的文本将截断。

超链接 http://www.myorg.com/docs/best_practices

链接必须以 http:// 或 https:// 开头。链接附加在消息末尾。

超链接文本 Learn about best practices

在搜索头群集中部署全局横幅

在搜索头集群环境中，Splunk Web 中“设置”菜单的某些部分默认是隐藏的。要在搜索头集群中使用 Splunk Web 部署全局横幅，您必须首先显示完整的设置菜单，如下所示：

1. 在 Splunk Web 中的任意群集成员上，单击**设置 > 显示全部设置 > 显示**。
   完整的设置菜单此时显示在 Splunk Web 中。
2. 单击**服务器设置 > 全局横幅**。
3. 如上一节“使用 Splunk Web 自定义全局横幅”所示，自定义全局横幅。
4. 单击**保存**。
   搜索头集群自动将全局横幅配置复制到每个集群成员，全局横幅现已显示在每个搜索头的 Splunk Web 中。

使用 REST 自定义全局横幅

要使用 REST 自定义全局横幅，请将 POST 请求发送到以下端点：

```
data/ui/global-banner
```

请参阅*《REST API 参考手册》*中的 data/ui/global-banner，了解端点详细信息。

使用配置文件自定义全局横幅

您可以通过在 `$SPLUNK_HOME/etc/system/local/global-banner.conf` 中指定设置来自定义全局横幅。

有关 `global-banner.conf` 设置的详细信息，请参阅 global-banner.conf。

使用配置文件管理 Splunk Enterprise

关于配置文件

Splunk Enterprise 配置设置都存储在**配置文件**中。这些文件通过 .conf 扩展名识别。配置设置类型包括：

- 系统设置
- 验证和授权信息
- 索引相关设置
- 部署和群集配置
- 知识对象和已保存的搜索

有关配置文件的列表以及每个文件所涵盖内容的概述，请参阅本手册中的“配置文件列表”。

默认配置文件存储在 $SPLUNK_HOME/etc/system/default/ 目录。

使用 Splunk Web 来管理配置文件

在 Splunk Web 中更改配置之后，此更改会写入到该设置的配置文件副本中。Splunk 软件会新建此配置文件的副本（如果不存在）、将更改写入到此副本，并将其添加到 $SPLUNK_HOME/etc/... 下的某个目录中。新文件所添加到的目录取决于多个因素，这将在本手册的“配置文件目录”中加以讨论。最常见的目录为 $SPLUNK_HOME/etc/system/local，即本示例中使用的目录。

如果您在 Splunk Web 中添加了一个新索引，软件会执行下列操作：

1. 检查文件的副本是否存在。

2. 如果无副本存在，软件会新建 indexes.conf 的副本并将其添加到 $SPLUNK_HOME/etc/system/local 之类的目录中。

3. 将更改写入到 indexes.conf 的副本中。

4. 在 $SPLUNK_HOME/etc/system/default 中保留未更改的默认文件。

直接编辑配置文件设置

尽管可以使用 Splunk Web 或 CLI 命令进行许多配置，但您仍可以直接编辑配置文件。某些高级配置在 Splunk Web 或 CLI 中不显示，只能通过直接编辑配置文件来进行更改。

不要更改、复制或移动默认目录中的配置文件。默认文件必须保持原样并位于初始位置。升级 Splunk 软件时，默认目录将被覆盖。升级到较新版本的软件时，您在默认目录中所做的所有更改都会丢失。升级时，您在非默认配置目录中所做的更改将保留。

要更改特定配置文件的设置，必须先在非默认目录中新建文件版本，然后添加想要更改的设置。开始新建文件版本时，请先新建空文件。不要从默认目录中的文件副本开始。有关您可以手动更改配置文件的目录相关信息，请参阅“配置文件目录”。

在您更改任何配置文件之前：

- 了解默认配置文件如何工作以及您编辑的文件应置于何处。请参阅“配置文件目录”。
- 了解构成配置文件的段落结构以及如何设置要编辑的属性。请参阅“配置文件结构”。
- 了解如何分层放置不同目录中同一配置文件的不同版本，以便您知道文件的最佳放置位置。请参阅“配置文件优先顺序”。
- 查看产品文档，包括配置文件的 .spec 和 .example 文件。这些文档文件位于 $SPLUNK_HOME/etc/system/README 的文件系统中以及本手册最后一章中。

熟悉配置文件内容和目录结构并了解如何利用 Splunk Enterprise 的配置文件优先顺序后，请参阅“如何编辑配置文件”以了解如何安全地更改文件。

配置文件目录

Splunk Enterprise 安装可能有多个版本的配置文件，这些配置文件位于多个目录中。例如，您可能在每个 default、local 和 app 目录中拥有相同的配置文件，但设置不同。Splunk Enterprise 使用分层方案和规则来评估重叠配置并确定其优先级。

当您需要覆盖已定义为默认设置的设置时，您可以将自定义配置文件放置在 Splunk Enterprise 安装下的不同文件夹路径中。有关如何确定优先顺序的描述和示例，请参阅“配置文件优先顺序”。

每个配置文件命名的 .spec 文件中提供了该配置文件的详细设置列表。您可以在 Splunk Enterprise 安装的 $SPLUNK_HOME/etc/system/README 文件夹或配置文件参考的文档中找到最新版本的 .spec 和 .example 文件。

关于默认文件

默认目录包含具有默认设置的预配置版本的配置文件。Splunk Enterprise 安装中默认目录的位置是 $SPLUNK_HOME/etc/system/default。

“所有文件您都可以随意更改，除了 /default - 不要尝试编辑任何内容” -- duckfez，2010

不要更改位于 $SPLUNK_HOME/etc/system/default 目录中的配置文件。Splunk Enterprise 升级过程将自动覆盖该文件夹中的内容，这将删除任何更改。如果要保留通过升级更改的设置，请将配置文件放入 local 本地文件夹路径，例如 $SPLUNK_HOME/etc/system/local 或 $SPLUNK_HOME/etc/apps/$app_name/local，如下所述。

升级过程还会检查$SPLUNK_HOME/etc/system/local文件夹路径中的内容。升级通常不会更改本地配置文件，但如果进行了更改，则会在配置文件或迁移日志中注明。您可以选择在进行任何更改之前，预览对自定义配置文件的更改，作为升级过程的一部分。

在何处放置（或查找）已修改的配置文件

要更改特定配置文件中的设置，必须先在非默认目录中创建一个同名的新文件，并将所需的设置和更改的值添加到您的新配置文件中。在非默认目录中定义的具有新值的设置将优先于在默认目录中定义的设置。

使用新配置文件更改默认设置时，您只需定义节类别、设置并更新值。不要将配置文件从默认目录完整复制到另一个文件夹中，因为该副本中的设置将优先于并覆盖升级期间所做的更改。

下面是 $SPLUNK_HOME/etc 中的配置目录结构：

$SPLUNK_HOME/etc/system/local

基于网站范围的本地更改存储在此目录中；例如，想要可供所有应用使用的设置。如果此目录中尚不存在您正在查找的配置文件，请创建该文件并验证服务帐户对其具有权限。

$SPLUNK_HOME/etc/slave-apps/[_cluster|<app_name>]/[local|default]

仅针对索引器群集对等节点。

$SPLUNK_HOME/etc/slave-apps 下的子目录包含所有对等节点通用的配置文件。

不要更改群集对等节点本身的这些子目录的内容。请使用群集管理器节点来将任何新的或已修改的文件分发给这些子目录。

_cluster 目录包含的配置文件虽然并不属于真正应用中的一部分，但是在所有对等节点之间必须保持一致。indexes.conf 文件就是一个典型示例。

有关更多信息，请参阅*《管理索引器和群集》*手册中的“更新通用对等节点配置”。

$SPLUNK_HOME/etc/apps/<app_name>/[local|default]

如果进行配置更改时您正在使用某个应用，则设置会写入应用的 /local 目录中的配置文件。例如，在搜索应用中编辑搜索时间设置请转到：$SPLUNK_HOME/etc/apps/search/local/。

如果您想要编辑配置文件，但使更改仅应用于某一应用，则将配置文件复制到该应用的 /local 目录，验证权限，然后在此目录中进行更改。

$SPLUNK_HOME/etc/users

用户特定的配置更改写入此处。

$SPLUNK_HOME/etc/system/README

此目录包含支持参考文档。对于大多数配置文件，有两个参考文件：.spec 和 .example；例如 inputs.conf.spec 和 inputs.conf.example。.spec 文件指定语法，包括可用属性和变量列表。.example 文件包含实际用法示例。

配置文件结构

编辑配置文件之前，您应熟悉这些文件的结构。

段落

配置文件由一个或多个**段落**或章节组成。每个段落的开头是段落标题，以方括号括起。此标题标识该段落中所保留的设置。每个设置均为指定特定配置设置的属性值对。

例如，inputs.conf 提供 [SSL]，其中包括服务器证书和密码的设置（以及其他设置）：

```
[SSL]
serverCert = <pathname>
password = <password>
```

其中一些属性为必填项，而另一些属性为可选项，具体取决于段落类型。

设置新段落

编辑配置文件时，您可能要更改默认段落（如上所述），也可能需要添加全新的段落。

基本模式如下：

```
[stanza1_header]
<attribute1> = <val1>
# comment
<attribute2> = <val2>
...

[stanza2_header]
<attribute1> = <val1>
<attribute2> = <val2>
...
```

重要提示：属性区分大小写。例如 sourcetype = my_app 与 SOURCETYPE = my_app **不同**。其中一个有效，另一个无效。

段落范围

配置文件常常会有不同范围的段落，更为具体详细的段落优先。例如，请看此用于配置**转发器**的 outputs.conf 配置文件示例：

```
[tcpout]
indexAndForward=true
compressed=true

[tcpout:my_indexersA]
compressed=false
server=mysplunk_indexer1:9997, mysplunk_indexer2:9997

[tcpout:my_indexersB]
server=mysplunk_indexer3:9997, mysplunk_indexer4:9997
```

请注意，本示例文件有两个段落层级：

- 全局 [tcpout]，包含影响所有 tcp 转发的设置。
- 两个 [tcpout:<target_list>] 段落，其设置仅影响在每个目标组中定义的索引器。

compressed 在 [tcpout:my_indexersA] 中的设置覆盖该属性在 [tcpout] 中的设置，*仅适用于 my_indexersA 目标组中的索引器*。

有关转发器和 outputs.conf 的更多信息，请参阅“使用 outputs.conf 配置转发器”。

配置文件优先顺序

Splunk 软件使用**配置文件**几乎确定其行为的各个方面。Splunk 平台部署可以具有同一配置文件的多个副本。这些文件副本通常分层放置在影响用户、**应用**或系统整体的目录中。

编辑配置文件时，了解 Splunk 软件如何评估这些文件以及这些文件的优先顺序非常重要。

合并更改时，Splunk 软件对配置文件执行下列操作：

- 它按照基于位置的优先顺序方案合并来自文件的所有副本的设置。
- 当不同副本有冲突的属性值时（也就是说，不同副本将相同属性设置为不同值时），会使用优先级最高的文件的值。

- 根据本主题中说明的规则，它通过目录结构中配置文件的位置来确定文件的优先级。

注意：除了解决一个文件的多个副本之间的配置设置之外，Splunk 软件有时还需要解决单个文件中的设置。请参阅“单个 props.conf 文件中的属性优先顺序”。

关于配置文件上下文

要确定目录顺序以评估配置文件的优先顺序，Splunk 软件会考虑各文件的上下文。配置文件会在全局上下文中或当前应用和用户的上下文中操作：

- **全局。**建立索引等活动发生在全局上下文中。这些目录独立于应用或用户。例如，确定监视或索引行为的配置文件发生在应用或用户上下文外，但其本质上属于全局上下文。
- **应用或用户。**像搜索等活动发生在应用或用户上下文中。应用和用户上下文对于搜索时间处理非常重要，其中某些知识对象或动作可能仅对特定应用中的特定用户有效。

配置文件目录的优先顺序因特定配置文件的上下文而异。要了解各文件的上下文，请参阅“配置文件及其上下文列表”。

Splunk 如何确定优先顺序

配置文件优先顺序取决于目录结构中文件副本的位置。Splunk 软件会考虑各文件的上下文以确定目录的优先顺序。

全局上下文内的优先顺序：

当文件上下文为全局时，目录优先级按以下顺序依次降低：

1. 系统本地目录 -- 最高优先级
2. 应用本地目录
3. 应用默认目录
4. 系统默认目录 -- 最低优先级

使用全局配置时（例如 inputs.conf），Splunk 软件首先会使用来自 system/local 中文件副本的属性。然后查找应用目录中文件的副本，添加在其中找到的属性，但会忽略已在 system/local 中发现的属性。最后，对于在系统级或应用级都未显示分配的属性，为其分配 system/default 目录中文件的默认值。

注意：群集对等节点具有扩展的优先顺序，下一节将对此进行介绍。

全局上下文内的优先顺序，仅限索引器群集节点

索引器集群对等配置有一个扩展的优先顺序，可以在全局上下文中考虑。这是因为一些配置文件（例如 indexes.conf）必须在所有对等节点之间都相同。

要保持对等节点之间配置设置一致，通过群集管理器节点管理配置文件，管理器节点会将文件推送到对等节点上的 slave-app 目录中。slave-app 目录中的文件在群集节点配置中的优先级最高。这些目录仅存在于索引器群集对等节点中。

以下是扩展的群集对等节点优先顺序：

1. 从属应用本地目录 -- 最高优先级
2. 系统本地目录
3. 应用本地目录
4. 从属应用默认目录
5. 应用默认目录
6. 系统默认目录 -- 最低优先级

应用或用户上下文内的优先顺序

对于有应用或用户上下文的文件而言，目录优先级按照用户、应用到系统的顺序依次降低：

1. 当前用户的用户目录 -- 最高优先级
2. 当前运行的应用的应用目录（本地，后跟默认）
3. 所有其他应用的应用目录（本地，后跟默认）-- 仅适用于导出设置
4. 系统目录（本地，后跟默认）-- 最低优先级

例如，savedsearches.conf 中的属性可在所有三个层级设置：用户级、应用级和系统级。Splunk 始终使用用户级属性的值（如果有），优先于在应用级或系统级设置的相同属性的值。

应用目录名称如何影响优先顺序

就大多数实际用途而言，此小节中的信息可能无关紧要，但如果您需要强制按某一顺序进行评估或者故障排除，则此信息非常有用。

应用目录名称的影响因上下文是全局还是本地而异。

全局上下文中的应用目录名称

决定全局上下文中的优先顺序时，Splunk 软件是按字典顺序决定应用目录集合的优先级。例如，应用目录中名称包含 "A" 的文件比应用目录中名称包含 "B" 的文件的优先级高，以此类推。

应用或应用上下文中的应用目录名称

决定应用或用户上下文中优先级时，Splunk 软件会使用相反的字典顺序决定应用目录集合的优先级，例如，名为 "B" 的应用目录中的文件比名为 "A" 的应用目录中的文件优先级更高，以此类推。

在应用或用户上下文中确定优先顺序时，目前正在运行的应用的目录优先于所有其他应用的目录，与目录的命名方式无关。此外，其他应用方面的检查应当仅针对于导出设置。

字典顺序的更细微之处

仅在全局上下文中，字典顺序决定优先顺序。因此，名为 “A" 的应用目录中的文件比名为 “B" 的应用目录的中文件优先级更高，以此类推。此外，以大写字母开始的所有应用的优先级将高于以小写字母开头的所有应用，这是由字典顺序决定的。（例如，"A" 的优先级高于 "Z"，但 "Z" 的优先级高于 "a"。）

此外，数字表示的目录的优先级比字母表示的目录的优先级高，按词典顺序进行评估，而不是按数字顺序进行评估。例如，按降序排列的优先顺序：

```
$SPLUNK_HOME/etc/apps/myapp1
$SPLUNK_HOME/etc/apps/myapp10
$SPLUNK_HOME/etc/apps/myapp2
$SPLUNK_HOME/etc/apps/myapp20
...
$SPLUNK_HOME/etc/apps/myappApple
$SPLUNK_HOME/etc/apps/myappBanana
$SPLUNK_HOME/etc/apps/myappZabaglione
...
$SPLUNK_HOME/etc/apps/myappapple
$SPLUNK_HOME/etc/apps/myappbanana
$SPLUNK_HOME/etc/apps/myappzabaglione
...
```

基于用于编码计算机内存中的项目的值按字典顺序对这些项目进行排序。在 Splunk 软件中，几乎都是使用 UTF-8 进行编码，这是 ASCII 的超集。

- 数字排在字母前面。根据第一位数字对数字进行排序。例如数字 10、9、70、100，按照字典顺序排序为 10、100、70、9。
- 大写字母排在小写字母前面。
- 符号的排序标准不固定。有些符号排在数字值前面。有些符号排在字母前面或后面。

在应用或用户上下文中，优先顺序是由相反的字典顺序决定的。因此，优先顺序是与上述字典顺序完全相反的，字典顺序仅用于全局上下文。例如，名为 "B" 的应用目录中的文件的优先级比名为 "A" 的应用目录中的文件的优先级高，应用 "a" 中的文件的优先级比应用 "B" 或 "A" 中的文件的优先级高，以此类推。同样地，数字应用目录的优先级比字母顺序目录的优先级低。

目录对配置优先级的影响汇总

总而言之，目录优先级顺序从最高到最低如下：

全局上下文

```
$SPLUNK_HOME/etc/system/local/*

$SPLUNK_HOME/etc/apps/A/local/* ... $SPLUNK_HOME/etc/apps/z/local/*

$SPLUNK_HOME/etc/apps/A/default/* ... $SPLUNK_HOME/etc/apps/z/default/*

$SPLUNK_HOME/etc/system/default/*
```

全局上下文，仅限群集对等节点

$SPLUNK_HOME/etc/slave-apps/A/local/* ... $SPLUNK_HOME/etc/slave-apps/z/local/*

$SPLUNK_HOME/etc/system/local/*

$SPLUNK_HOME/etc/apps/A/local/* ... $SPLUNK_HOME/etc/apps/z/local/*

$SPLUNK_HOME/etc/slave-apps/A/default/* ... $SPLUNK_HOME/etc/slave-apps/z/default/*

$SPLUNK_HOME/etc/apps/A/default/* ... $SPLUNK_HOME/etc/apps/z/default/*

$SPLUNK_HOME/etc/system/default/*

在 slave-apps/[local|default] 目录中，特殊 _cluster 子目录的优先级要高于以小写字母开头的所有应用子目录（如 anApp）。但是，该子目录的优先级要低于以大写字母开头的所有应用（如 AnApp）。这是由下划线（"_"）字符在字典顺序中的位置决定的。

应用或用户上下文

$SPLUNK_HOME/etc/users/*

$SPLUNK_HOME/etc/apps/Current_running_app/local/*

$SPLUNK_HOME/etc/apps/Current_running_app/default/*

$SPLUNK_HOME/etc/apps/z/local/*, $SPLUNK_HOME/etc/apps/z/default/*, ... $SPLUNK_HOME/etc/apps/A/local/*,
$SPLUNK_HOME/etc/apps/A/default/*

$SPLUNK_HOME/etc/system/local/*

$SPLUNK_HOME/etc/system/default/*

在应用或用户上下文中，目前正在运行的应用的所有配置文件优先于所有其他应用的文件。此规则适用于该应用的本地和默认目录。因此，如果当前上下文是应用 C，Splunk 会先评估 $SPLUNK_HOME/etc/apps/C/local/* 和 $SPLUNK_HOME/etc/apps/C/default/*，然后再评估其他应用的本地和默认目录。此外，只有当其他应用的配置数据已通过该应用的 default.meta 文件全局导出时，Splunk 软件才会查看这些数据。

同理，请注意，只有当特定用户登录或执行搜索时，才会评估 /etc/users/。

属性优先顺序工作原理示例

本属性优先顺序示例使用的是 props.conf。props.conf 文件比较特殊，因为其上下文可以是全局，也可以是应用或用户，具体取决于 Splunk 评估文件的时间。Splunk 可以同时在索引时间（全局）和搜索时间（应用或用户）评估 props.conf。

假设 $SPLUNK_HOME/etc/system/local/props.conf 包含以下段落：

```
[source::/opt/Locke/Logs/error*]
sourcetype = fatal-error
```

而 $SPLUNK_HOME/etc/apps/t2rss/local/props.conf 包含同一段落的另一个版本：

```
[source::/opt/Locke/Logs/error*]
sourcetype = t2rss-error
SHOULD_LINEMERGE = True
BREAK_ONLY_BEFORE_DATE = True
```

始终应用 t2rss 中的行合并属性分配，因为这些属性分配仅出现发生在该文件的该版本中。但是与 sourcetype 属性有冲突。在 /system/local 版本中，sourcetype 的值为 "fatal-error"。在 /apps/t2rss/local 版本中，属性值为 "t2rss-error"。

由于这是在索引时间应用的 sourcetype 分配，Splunk 使用全局上下文确定目录优先顺序。在全局上下文中，Splunk 将最高优先级指定给 system/local 中的属性分配。因此，sourcetype 属性指定值 "fatal-error"。

该文件最终的内部合并版本如下：

```
[source::/opt/Locke/Logs/error*]
sourcetype = fatal-error
SHOULD_LINEMERGE = True
BREAK_ONLY_BEFORE_DATE = True
```

配置文件及其上下文列表

如上所述，Splunk 根据配置文件所运行的上下文（全局、应用或用户）来确定文件的评估方式。通常而言，影响数据导入、建立索引或部署活动的文件为全局；影响搜索活动的文件通常有应用或用户上下文。

`props.conf` 和 `transforms.conf` 文件在应用、用户或全局上下文中都可以评估，具体情况取决于 Splunk 是在索引时间还是在搜索时间使用这两个文件。`limits.conf` 文件在全局上下文中评估，应用或用户可调节的几个设置除外。

全局配置文件

```
admon.conf
authentication.conf
authorize.conf
crawl.conf
deploymentclient.conf
distsearch.conf
indexes.conf
inputs.conf
limits.conf, except for indexed_realtime_use_by_default
outputs.conf
pdf_server.conf
procmonfilters.conf
props.conf -- global and app/user context
pubsub.conf
regmonfilters.conf
report_server.conf
restmap.conf
searchbnf.conf
segmenters.conf
server.conf
serverclass.conf
serverclass.seed.xml.conf
source-classifier.conf
sourcetypes.conf
sysmon.conf
tenants.conf
transforms.conf  -- global and app/user context
user-seed.conf -- special case: Must be located in /system/default
web.conf
wmi.conf
```

应用或用户配置文件

```
alert_actions.conf
app.conf
audit.conf
commands.conf
eventdiscoverer.conf
event_renderers.conf
eventtypes.conf
fields.conf
literals.conf
macros.conf
multikv.conf
props.conf -- global and app/user context
savedsearches.conf
tags.conf
times.conf
transactiontypes.conf
```

```
transforms.conf  -- global and app/user context
user-prefs.conf
workflow_actions.conf
```

配置优先顺序和其他问题的故障排除

Splunk 的配置文件系统支持位于不同位置的许多重叠配置文件。实现这种程度灵活性的代价是判定您的 Splunk 安装中使用哪个配置选项的哪个值有时非常复杂。如果您想查找在给定情况下会使用什么配置设置的一些提示，请参阅*《故障排除手册》*中的“使用 btool 排除配置故障”。

单个 props.conf 文件中的属性优先顺序

除了要了解属性优先顺序在文件之间如何工作之外，您有时还需要考虑在单个 props.conf 文件中的属性优先级。

影响同一目标的一组段落中的优先顺序

当两个或多个**段落**指定影响同一项目的行为时，按段落的 ASCII 顺序评估项目。例如，假设您在 `props.conf` 中指定以下段落：

```
[source::.../bar/baz]
attr = val1

[source::.../bar/*]
attr = val2
```

将使用 `attr` 在第二个段落中的值，因为该值的路径在 ASCII 顺序中较高，因此相对来说优先。

覆盖 props.conf 中的默认属性优先级

有一种可以覆盖 `props.conf` 中的默认 ASCII 优先级的方法。使用 `priority` 键为给定段落指定较高或较低的优先级。

例如，假设有以下数据来源：

```
    source::az
```

和以下模式：

```
    [source::...a...]
    sourcetype = a

    [source::...z...]
    sourcetype = z
```

在本案例中，默认行为是由模式 "source::...a..." 提供的设置优先于由 "source::...z..." 提供的设置。因此，sourcetype 的值为 "a"。

要覆盖此默认 ASCII 顺序，请使用 `priority` 键：

```
    [source::...a...]
    sourcetype = a
    priority = 5

    [source::...z...]
    sourcetype = z
    priority = 10
```

为第二个段落分配更高的优先级导致 `sourcetype` 的值为 "z"。

还需要考虑另一个属性优先顺序问题。默认情况下，与字符串逐字匹配的段落（“字面匹配段落”）优先于正则表达式模式匹配段落。这是由于其 `priority` 键的默认值：

- 0 是模式匹配段落的默认值。
- 100 是字面匹配段落的默认值。

因此，字面匹配段落始终优先于模式匹配段落，除非通过显式设置 priority 键来更改行为。

您可以使用 priority 键来解决相同类型的模式之间的冲突，例如 sourcetype 模式或 host 模式。但是，priority 键不影响规范类型之间的优先顺序。例如，source 模式优先于 host 和 sourcetype 模式，而不考虑 priority 键值。

具有多个属性分配的事件的优先顺序

props.conf 文件设置属性，以按 host、source 或 sourcetype（有时还有事件类型）处理单个事件。因此，一个事件的**默认字段** host、source 或 sourcetype 有可能相同属性设置不同值。优先顺序如下：

- source
- host
- sourcetype

您可能想要覆盖默认 props.conf 设置。例如，假设您要跟踪 mylogfile.xml，默认标记为 sourcetype = xml_file。此配置只要更改就会重新索引整个文件，即使您手动指定另一个 sourcetype，因为 property 通过 source 来设置。要覆盖此设置，通过 source 添加显式配置：

```
[source::/var/log/mylogfile.xml]
CHECK_METHOD = endpoint_md5
```

如何编辑配置文件

若想自定义 Splunk 实例以满足您的特定需求，您可以编辑内置配置设置。

前提条件：

- 只有拥有文件系统访问权限的用户，如系统管理员，才能编辑 Splunk Enterprise 配置文件。
- 在编辑配置文件之前，请确保您了解整个配置系统在 Splunk Enterprise 部署中的工作方式，以及要进行更改的位置。

  下表描述了您需要了解的信息以及在何处可以找到这些信息：

需了解的信息	了解更多信息
您可以有几个具有相同名称的配置文件，分散在默认目录、本地目录和应用目录中。这会产生分层效果，使您的 Splunk 部署可以确定配置优先级。 在编辑配置文件之前，您需要知道在何处创建配置文件的自定义版本。	请参阅“配置文件目录”。
配置文件由段落组成。每个段落可标识用于指定 Splunk Enterprise 配置的设置。 在编辑配置文件之前，您需要了解文件各段落的结构。	请参阅“配置文件结构”。
Splunk 软件使用配置文件来设置默认值和限制。Splunk 平台部署可以在不同的目录中拥有同一配置文件的多个副本。这些副本在目录中的分层方式会影响用户、应用或整个系统。 在编辑配置文件时，您需要了解 Splunk 软件如何按重要性顺序评估这些文件。	请参阅“配置文件优先顺序”。

自定义配置文件

要自定义某个配置文件，请在 local 或 app 目录下以同样的名称新建一个文件。然后您可以将您需要自定义的特定设置添加到本地配置文件。

不要更改或复制默认目录中的配置文件。默认目录中的文件必须保持原样并位于其原始位置。Splunk Enterprise 升级过程将覆盖默认目录。您在默认目录中所做的任何更改都会在升级时丢失。您在非默认配置目录中进行的更改，例如 $SPLUNK_HOME/etc/system/local 或 $SPLUNK_HOME/etc/apps//local，在升级后仍会保留。

1. 确定配置文件是否已经存在于您想存放的目录中。例如，如果您想修改 local 目录中的配置文件，请打开 $SPLUNK_HOME/etc/system/local 目录。
2. 如果首选目录中未找到所需的配置文件，请创建该文件。您要创建一个空文件。
3. 编辑首选目录中的配置文件，并仅在本地文件中添加要自定义的段落和设置。

清除设置

您可以清除某个设置以覆盖该设置保存的所有旧值，包括在 `default` 目录中设置的值。清除设置会使系统认为该值完全未设置。

您可以通过将值更改为 null 的方式来清除设置。

例如，假设您想清除 `forwardedindex.0.whitelist` 设置（位于 `output.conf` 文件，`local` 目录）。您可以按照以下步骤清除该设置：

1. 打开 outputs.conf 文件（位于 `local` 目录）。
2. 找到 `forwardedindex.0.whitelist` 设置并将其值更改为 null。例如：

   ```
   forwardedindex.0.whitelist =
   ```
3. 保存 outputs.conf 文件。

因为 `local` 目录中的设置优先级高于 `default` 目录中的设置，所以当 Splunk 软件读取这些设置时，将使用 `forwardedindex.0.whitelist` 中的 null 设置。

插入注释

在自定义设置时，解释为什么要自定义该设置会很有帮助。在 `local` 或 `apps` 目录下的配置文件中添加注释是一种很好的方式，可以为您及其他可能查看这些文件的人添加说明。

要在配置文件中添加注释，请插入一个井号（#）然后再输入注释即可。注释的起始处要位于某行的开头。

放置注释的最佳位置是该设置所属的段落之前或该设置之前。例如：

```
# This stanza forwards some log files.
[monitor:///var/log]
```

如果一个段落中有多个设置，请在每个设置之前添加注释。可以考虑在注释中添加日期，或以所有字母都大写的方式添加注释。例如：

```
[stanza_name]

# 1/30/2020 - 5 is optimal for our current configuration.
# This was discussed with both David Mayer and Wei Zhang.
a_setting = 5

# 9/15/2019 - WE'VE CHANGED THIS SETTING TO "TRUE" BECAUSE IT ENABLES US TO  <your_reason_goes_here>.
b_setting = true
```

不适合添加注释的位置

不要将注释与段落或设置放在同一行上。

此示例说明了注释放置位置不当的情况。

```
[monitor:///var/log]    # This is a really bad place to put your comment.
a_setting = 5  # This is a bad place too.
```

将注释与段落或设置放置在同一行可能会导致意外结果。在以下示例中，注释与设置位于同一行：

```
a_setting = 5  #5 is the best number
```

这会将 `a_setting` 设置为值 `5 #5 is the best number` 而非预期的 `5`。

在 Windows 和其他非 UTF-8 操作系统上新建和编辑配置文件

Splunk 平台使用 ASCII/UTF-8 编码的配置文件。

对于 UTF-8 不是默认字符集的操作系统（例如 Windows），要配置您的文本编辑器使用该操作系统的默认字符集写入文件。

常见的编辑错误

在编辑配置文件时，请注意避免一些常见错误：

- 正确拼写设置的名称。为获得最佳效果，请从相应的规范文件中复制设置名称。
- 注意设置名称中的大写。与密码一样，大小写很重要。也就是说，对于名为 "someAttribute" 的设置，不能用 "SomeAttribute" 或 "someattribute" 代替。
- 将设置放在它所属的段落中。许多设置仅在特定上下文中运行，因此需要您将它们放置在该上下文的段落中。

  例如，server.conf 中的索引器集群设置必须放在 [clustering] 段落下。规范文件提供了有关段落要求的明确指导。
- 放置设置，使其适用于所需的范围。

  某些设置可以全局应用，也可以在特定范围内应用。要全局应用设置，请将设置放在配置文件的顶部，在任何段落之前。当设置具有特定范围时，将设置放置在该范围的段落内。

  例如，在 indexes.conf 中，某些设置可以在每个索引的基础上应用，也可以在全局范围内应用于所有索引。如果您希望设置的特定值仅应用于单个索引，请将设置放在该索引的段落下。

  同样，如果您希望将设置应用于所有索引，请将设置放在所有段落之上。您还可以在段落上方放置具有一个值的设置，然后将具有不同值的设置添加到一个或多个索引段落中。这样，每个索引都使用全局值，除非为特定索引修改了设置值。
- 不要在同一个上下文中添加两次设置。如果这样做，设置的最终实例将生效，但您可能会在以后对此感到困惑。例如：假设您添加了一个段落和设置：

  ```
  [some stanza]
  setting=foo。
  ```

  然后，有人随后出现并在文件接下来的部分中添加了一个具有相同名称的段落，但设置的值却不同：

  ```
  [some stanza]
  setting=bar
  ```

  该设置的值为 "bar"，因为第二个实例在文件中更靠后。但是，当有人稍后尝试更改设置并遇到设置的第一个实例而不是第二个实例时，可能会产生混乱。

更改配置文件之后何时重新启动 Splunk Enterprise

通过手动编辑配置文件对 Splunk Enterprise 进行更改时，您可能需要重新启动 Splunk Enterprise 以使更改生效。

注意：通过 Splunk Web 或 CLI 进行的更新需要重新启动的可能性很小。这是因为实例会在此类更新后自动重新加载更改的配置。

本主题提供指导原则来帮助您确定更改后是否重新启动。更改后是否需要重新启动取决于多个因素，本主题并不提供明确结论。始终查阅配置文件或其参考主题，了解特定更改是否需要重新启动。有关配置文件的完整列表以及每个文件所涵盖内容的概述，请参阅本手册中的“配置文件列表”。

重新启动转发器的时间

如果您更改重型转发器的配置文件，则必须重新启动转发器，但不必重新启动接收索引器。如果更改是已经配置为更改后重新启动的已部署应用的一部分，转发器则会自动重新启动。

重新启动 Splunkweb 的时间

必须重新启动 Splunkweb，才能对 Splunk Web 访问启用或禁用 SSL。

重新启动 Splunkd 的时间

正常情况下，在作出下列几种更改后重新启动 Splunkd。

索引器更改

- 索引时间字段提取
- 时间戳属性

有关需要重新启动的 indexes.conf 设置更改的信息，请参阅*《管理索引器和索引器群集》*中的“确定哪些 indexes.conf 变更需要重新启动”。此外，关于起动重新启动的配置软件包更改的信息，请参阅*《管理索引器和索引器群集》*中的“更新通用节点配置和应用”。

注意：通过 Splunk Web 和 CLI 进行影响索引建立的设置更改时，这些设置不需要重新启动而且会立即生效。

用户和角色更改

在配置文件中进行的任何用户和角色更改均需重新启动，包括：

- LDAP 配置（如果您在 Splunk Web 中进行这些更改，则可重新加载更改而不必重新启动。）
- 密码更改
- 角色功能更改
- Splunk Enterprise 本机验证更改，如用户到角色的映射。

系统更改

影响系统设置或服务器状态的所有更改均需重新启动，比如：

- 许可授权更改
- Web 服务器配置更新
- 常规索引器设置（最小可用磁盘空间、默认服务器名称等）更改
- 常规设置（如端口设置）更改。
- 更改转发器的输出设置
- 更改 Splunk Enterprise 实例操作系统中的时区（Splunk Enterprise 在启动时从基本操作系统检索其本地时区）
- 安装某些应用可能需要重新启动。查阅您要安装的每个应用的文档。

不需要重新启动的 Splunk Enterprise 更改

搜索时处理设置

应用于搜索时间处理的设置会立即生效，而且不需要重新启动。这是因为搜索在重新加载配置的单独进程中运行。例如，每次搜索都会重新读取查找表、标记和事件类型。

这包括（但不限于）下列更改：

- 查找表
- 字段提取
- 知识对象
- 标记
- 事件类型

包含搜索时间操作的文件包括（但不限于）：

- macros.conf
- props.conf
- transforms.conf
- savedsearches.conf （如果更改新建了一个端点，则必须重新启动。）

要重新加载您的端点，在浏览器中键入以下链接：

```
http://<yoursplunkserver>:8000/en-US/debug/refresh
```

索引时间设置

只要您的索引器从转发器接收数据，索引时间弹出和转换不需要重启。也就是说：

- 在索引器上更改 props.conf 和 transforms.conf 不需要重新启动。
- 在索引器群集中，对等节点从管理器节点接收更改时，props.conf 和 transforms.conf 更改会自动重新加载。
- 在非群集索引器上，props.conf 和 transforms.conf 更改需要重新加载。
- 无论在群集索引器还是非群集索引器上，conf 文件重新加载后，更改在转发器 auto-LB 时间段后生效。

工作负荷管理设置

对工作负荷管理配置文件 workload_rules.conf 和workload_pools.conf 的更改不需要重新启动。

如何重新加载文件

要重新加载 transforms.conf：

```
http://<yoursplunkserver>:8000/en-US/debug/refresh?entity=admin/transforms-lookup
for new lookup file definitions that reside within transforms.conf

http://<yoursplunkserver>:8000/en-US/debug/refresh?entity=admin/transforms-extract
for new field transforms/extractions that reside within transforms.conf
```

要重新加载 authentication.conf，请使用 Splunk Web。转到**设置 > 访问控制 > 验证方法**，然后单击**重新加载验证配置**。此操作会刷新验证缓存，但不断开当前用户连接。

索引器群集重新启动

要了解索引器群集重新启动、使用滚动重新启动的方法和时间等相关信息，请参阅*《管理索引器和索引器群集》*中的“重新启动整个索引器群集或单个对等节点”。

使用案例

在复杂情况下，重新启动 Splunk Enterprise 最为保险。下面是一些您能够（或不能够）避免重新启动的方案。

方案：在 props.conf 和 transforms.conf

是否重新启动取决于更改是否与索引时间设置或搜索时间设置有关。索引时间设置包括：

- 换行
- 时间戳分析

搜索时间设置主要涉及字段提取和新建，不需要重新启动。任何索引时间的更改仍需要重新启动。例如：

1. 如果 props.conf 和 transforms.conf 被配置为在索引上进行搜索时间转换，则您无需重新启动。对于搜索时间的更改，每次您运行搜索时 Splunk 软件会重新加载 props.conf 和 transforms.conf。

2. 如果在重型转发器上搜索时间发生更改，您必须重新启动该转发器。如果更改是已部署应用（配置为更改后重新启动）的一部分，则它会自动重新启动。

3. 如果它是索引器上的索引时间转换，您必须重新启动索引器。

方案：编辑 savedsearches.conf 和新搜索以新建 REST 端点

您必须重新启动索引器以集成新端点。

配置文件列表

下面是与每个配置文件相关联可用的一些规范和示例文件的列表。一些配置文件没有规范或示例文件；在编辑这些没有随附规范和示例文件的配置文件之前，请联系支持部门。

警告：不要在 $SPLUNK_HOME/etc/system/default/ 中编辑任何配置文件的默认副本。请参阅“如何编辑配置文件”。

文件	用途
alert_actions.conf	新建告警。
app.conf	配置应用属性
audit.conf	配置审计和事件哈希。本功能在该版本中不可用。
authentication.conf	在 Splunk 的内置验证或 LDAP 之间切换，以及配置 LDAP。
authorize.conf	配置角色，包括具体访问控制。
bookmarks.conf	书签监视控制台 URL。
checklist.conf	自定义监视控制台运行状况检查。
collections.conf	为应用配置 KV 存储集合。
commands.conf	将搜索命令连接到自定义搜索脚本。

datamodels.conf	用于配置数据模型的属性/值对。
default.meta.conf	为 Splunk 应用对象设置权限。
deploymentclient.conf	指定部署服务器的客户端的行为。
distsearch.conf	指定分布式搜索的行为。
event_renderers.conf	配置 event-rendering 属性。
eventtypes.conf	新建事件类型定义。
fields.conf	新建多值字段，并为索引字段添加搜索功能。
global-banner.conf	在 Splunk Web 的所有页面中显示全局横幅。
health.conf	为主动 Splunk 组件监视设置默认阈值。
indexes.conf	管理和配置索引设置。
inputs.conf	设置数据输入。
instance.cfg.conf	指定和管理 Splunk 特定实例的设置。这非常方便，例如，在标识转发器进行内部搜索时。
limits.conf	为搜索命令设置各种限制（例如最大结果大小或并发实时搜索）。
literals.conf	自定义在 Splunk Web 中显示的文本，例如搜索错误字符串。
macros.conf	在设置中定义搜索宏。
messages.conf	自定义 Splunk Web 消息。
metric_rollups.conf	为指标汇总策略条目设置属性/值对。
multikv.conf	为类似表的事件（ps、netstat、ls）配置提取规则。
outputs.conf	设置转发行为。
passwords.conf	为应用保留凭证信息。
procmon-filters.conf	监视 Windows 进程数据。
props.conf	设置索引属性配置，包括时区偏移、自定义来源类型规则和模式冲突优先级。同时，还会将转换映射到事件属性。
pubsub.conf	定义部署服务器的自定义客户端。
restmap.conf	新建自定义 REST 端点。
savedsearches.conf	定义普通报表、计划的报表和告警。
searchbnf.conf	配置搜索助理。
segmenters.conf	配置分段。
server.conf	包含用于配置 Splunk Enterprise 实例完整状态的各种设置。例如，文件中包括各种设置，用于启用 SSL、配置**索引器群集**或**搜索头群集**的节点、配置 **KV 存储**和设置**许可证主服务器**。
serverclass.conf	定义与部署服务器一起使用的部署服务器类。
serverclass.seed.xml.conf	配置如何在启动时为装有应用的部署客户端播种。
source-classifier.conf	新建来源类型（例如敏感数据）时的忽略条件。
sourcetypes.conf	用于存储来源类型学习规则的机器生成的文件。
tags.conf	配置字段的标记。
telemetry.conf	启用应用以收集关于应用使用情况和其他属性的遥测数据。
times.conf	定义在搜索应用中使用的自定义时间范围。
transactiontypes.conf	为交易搜索添加附加交易类型。

transforms.conf	配置对数据导入执行的正则表达式转换。在带有 props.conf 的串联中使用。
ui-prefs.conf	为视图更改 UI 首选项。包括为时间范围挑选器更改默认最早及最晚数值。
user-seed.conf	设置默认用户和密码。
visualizations.conf	列出应用可以为系统提供的可视化。
viewstates.conf	使用此文件设置 IU 视图（如图表所示）。
web.conf	配置 Splunk Web，启用 HTTPS。
wmi.conf	设置 Windows management instrumentation (WMI) 输入。
workflow_actions.conf	配置工作流动作。
workload_policy.conf	在工作负荷管理中启用或禁用准入规则。
workload_pools.conf	在工作负荷管理中配置您可分配给搜索的工作负荷池（计算和内存资源组）。
workload_rules.conf	配置工作负荷规则以在工作负荷管理中定义工作负荷池的访问权限和优先级。

配置参数和数据管道

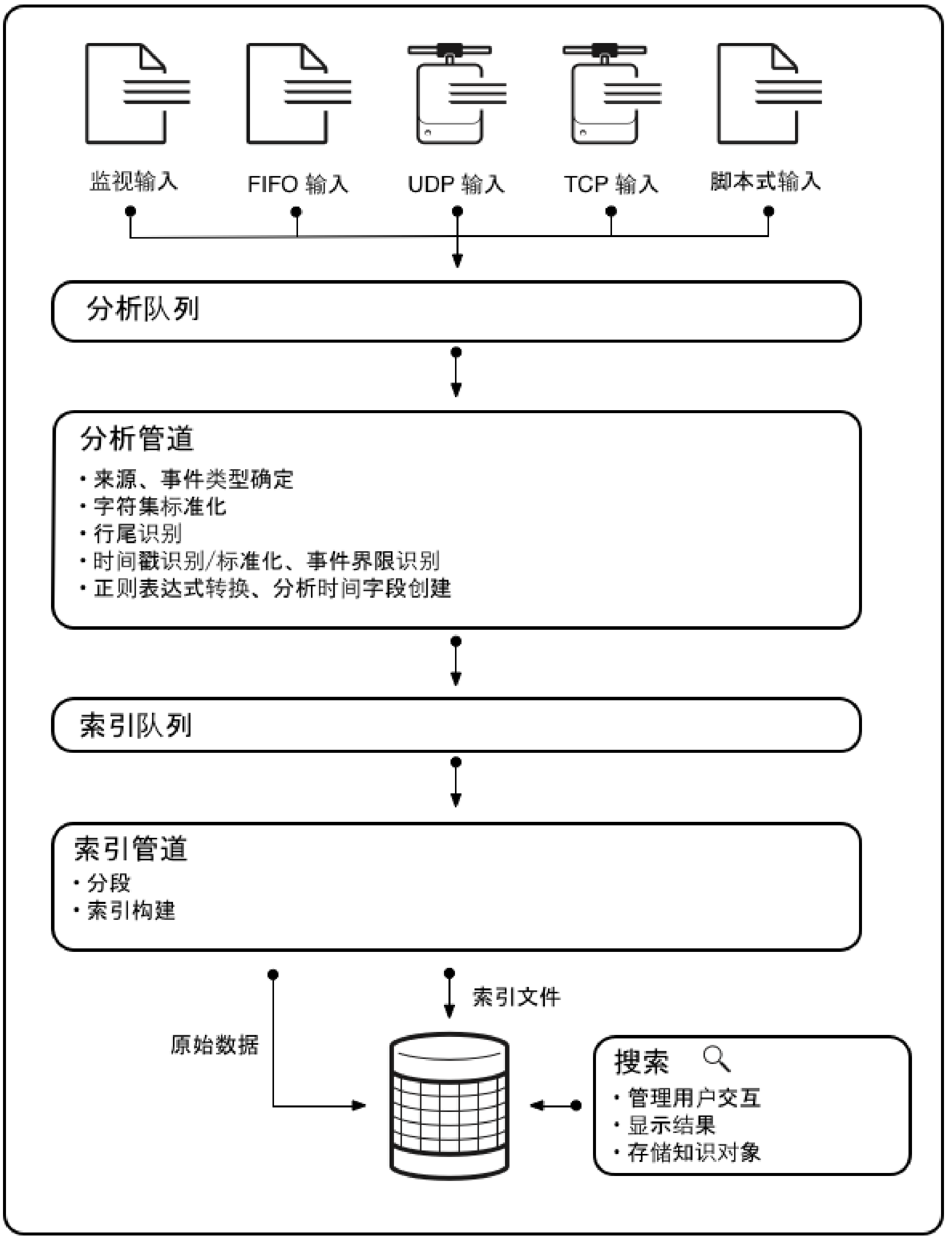
数据在从原始输入转换为可搜索事件过程中经历了几个阶段。此过程称为**数据管道**，由以下四个阶段构成：

- **输入**
- **分析**
- **索引**
- **搜索**

数据管道的每个阶段依赖于不同的配置文件参数。知道某一特定参数作用于哪个阶段可让您确定在 Splunk 部署拓扑中需要设置该参数的位置。

数据管道的外观

下图概述了数据管道：



在《分布式部署手册》中的“数据如何通过 Splunk：数据管道”中详细介绍了数据管道。

Splunk Enterprise 组件如何与管道的阶段相关联

一个或多个 Splunk Enterprise 组件可以执行每个管道阶段。例如，通用转发器、重型转发器或索引器可以执行输入阶段。

数据仅在每个阶段经历一次，因此，每个配置仅属于一个组件，特别是处理该阶段的部署中的第一个组件。例如，假定您通过一组通用转发器让数据进入到系统，通用转发器转发数据到中间重型转发器，然后重型转发器又向上转发数据到索引器。在这种情况下，该数据的输入阶段发生在通用转发器中，且分析阶段发生在重型转发器中。

数据管道阶段	可以执行该角色的组件
输入	**索引器** **通用转发器** **重型转发器**
分析	索引器 重型转发器 轻型/通用转发器（仅与 INDEXED_EXTRACTIONS 属性结合使用）
索引	索引器
搜索	索引器

搜索	**搜索头**

在哪里配置参数取决于特定部署中的组件。例如，在大多数情况中，您可以在索引器中设置分析参数。但是，如果您让重型转发器向索引器提供数据，则在重型转发器中设置分析参数。同样，您在搜索头（如果有）中设置搜索参数。但是，如果您没有部署专用搜索头，则在索引器中设置搜索参数。

有关更多信息，请参阅*《分布式部署手册》*中的“组件和数据管道”。

配置参数如何与管道的阶段相关联

下面的配置参数与使用这些参数的管道阶段的对应表并不详尽。结合此信息以及您对特定部署中哪个 Splunk 组件执行各个阶段的了解，您可以确定在何处配置每项设置。

例如，如果您要使用通用转发器来获取输入，则需要对转发器配置 `inputs.conf` 参数。但是，如果您的索引器直接获取网络输入，则需要对索引器配置这些网络相关的 `inputs.conf` 参数。

如下阶段中的下列项目按照 Splunk 应用的顺序列出（也就是说 LINE_BREAKER 的发生先于 TRUNCATE）。

输入阶段

- inputs.conf
- props.conf
  - CHARSET
  - NO_BINARY_CHECK
  - CHECK_METHOD
  - CHECK_FOR_HEADER （已弃用）
  - PREFIX_SOURCETYPE
  - sourcetype
- wmi.conf
- regmon-filters.conf

结构化分析阶段

- props.conf
  - INDEXED_EXTRACTIONS，和所有其他结构化数据标头提取

分析阶段

- props.conf
  - LINE_BREAKER、TRUNCATE、SHOULD_LINEMERGE、BREAK_ONLY_BEFORE_DATE 和所有其他行合并设置
  - TIME_PREFIX、TIME_FORMAT、DATETIME_CONFIG（datetime.xml）、TZ 和所有其他时间提取设置和规则
  - TRANSFORMS 其中包括按事件队列筛选、按事件索引分配、按事件路由
  - SEDCMD
  - MORE_THAN、 LESS_THAN
- transforms.conf
  - 由在 props.conf 中的子句 TRANSFORMS 引用的段落
  - LOOKAHEAD、DEST_KEY、WRITE_META、DEFAULT_VALUE REPEAT_MATCH

索引阶段

- props.conf
  - SEGMENTATION
- indexes.conf
- segmenters.conf

搜索阶段

- props.conf
  - EXTRACT
  - REPORT
  - LOOKUP
  - KV_MODE
  - FIELDALIAS
  - EVAL
  - rename
- transforms.conf
  - 由在 props.conf 中的子句 REPORT 引用的段落

    - filename、external_cmd 和所有其他查找相关设置
    - FIELDS、 DELIMS
    - MV_ADD
- 查找文件夹中的查找文件
- bin 文件夹中的搜索和查找脚本
- 搜索命令和查找脚本
- savedsearches.conf
- eventtypes.conf
- tags.conf
- commands.conf
- alert_actions.conf
- macros.conf
- fields.conf
- transactiontypes.conf
- multikv.conf

其他配置设置

有一些设置在分布式 Splunk 环境中无法正常使用。有可能出现异常，其中包括：

- props.conf
    - CHECK_FOR_HEADER （已弃用）、LEARN_MODEL、maxDist。这些设置是在分析阶段新建的，但需要将生成的配置移动到搜索阶段配置位置。

备份配置信息

Splunk 的所有配置信息都包含在**配置文件**中。要备份这组配置文件，可以新建 `$SPLUNK_HOME/etc/` 的归档或副本。此目录及其子目录包含 Splunk 安装的所有默认和自定义设置以及所有应用，包括保存的搜索、用户帐户、标记、自定义来源类型名称和其他配置信息。

将此目录复制到要恢复的新 Splunk 实例。执行此操作时不需要停止 Splunk。

有关配置文件的更多信息，请阅读“关于配置文件”。

备份群集管理器节点

如果您正在使用**索引复制**，则可以备份管理器节点的静态配置。这是配置备用管理器节点（可以在主要管理器节点发生故障时进行接管）时的特定使用。有关详细信息，请参阅《管理索引器和群集》手册中的“配置管理器节点”。

检查 Splunk 软件文件完整性

Splunk 软件随附的大多数文件都不应该被最终用户或管理员修改。但是，很多用户会不小心修改这些文件。比如，有人会在默认目录里编辑配置文件，或者文件可能因为硬件问题、文件系统问题、损坏的安装或错误脚本等问题遭到破坏。

Splunk 软件实例文件内容被无效修改时，文件验证能够识别。您可以手动运行此检查，启动时它也会自动运行。如果您是管理员，可以在监视控制台运行状况检查或任何节点的仪表板中查看结果。

手动运行此检查

您可能想要在以下任何一种情况下手动运行完整性检查：

- 升级之后遇到问题。
- 有可疑的存储系统问题症状出现。
- 怀疑存在或者希望防止对默认 conf 文件进行常见的错误编辑。
- 作为例行系统检查的一部分。请参见*《监视 Splunk Enterprise》*手册里的“自定义运行状况检查”。

用默认设置手动运行检查，从安装目录键入 `./splunk validate files`。您可以用两个控件手动运行完整性检查。

- 您可以通过 `-manifest` 指定描述正确文件内容的文件。您可能想要通过此操作检查拙劣的升级之后来自先前安装的旧列表，以验证文件只是过于陈旧。您可以使用任何有效的列表文件。列表文件位于新下载的 Splunk Enterprise 安装目录下。
- 您可以通过使用 `-type conf` 仅对以 .conf 结尾的文件进行测试。这是启动时检查打印至终端的消息组。

自动验证选项

检查在启动时分两部分运行。

首先，作为 splunkd 开始前传输前检查的一部分，检查仅迅速验证默认 conf 文件并将消息写入您的终端。

接下来，splunkd 启动后，检查会验证 Splunk Enterprise 随附的所有文件（默认 conf 文件、库、二进制文件、数据文件等）。这一更为完整的检查会将结果写到 splunkd.log 和 Splunk Web 中的公告消息系统。您可以在 limits.conf 中进行配置。

limits.conf 第二部分检查选项包括以下内容：

- 运行和日志
- 运行、日志和将信息输出至 Splunk Web
- 禁用

请参阅 limits.conf.spec。

阅读安装提供的所有文件对 I/O 性能有一些影响。如果您需要在行中多次重新启动 Splunk 软件，您可能希望暂时禁用此项检查来提高 I/O 性能。

文件通过对比安装目录的清单文件进行验证。如果文件被删除或者修改，检查就无法正常进行。

查看 Splunk Web 中的结果

如果您是管理员，可以在监视控制台运行状况检查或任何节点的仪表板中查看结果。有关监视控制台运行状况检查的更多信息，请参阅“访问和自定义运行状况检查”。

要通过任何节点查看默认仪表板：

1. 以 Splunk Web 管理员身份登录部署中的任何节点。
2. 在 Splunk Home 中单击**搜索和报表**以进入搜索和报表应用。
3. 在应用栏，单击**仪表板**。
4. 在仪表板列表中，单击**已安装文件完整性检查**。

解释完整性检查结果

如果完整性检查返回错误，如 "File Integrity checks found files that did not match the system-provided manifest"（文件完整性检查发现和系统提供的清单文件不匹配的文件），以下提示有助于您解决问题。

- 如果完整性检查发现默认目录中的配置文件有问题，确定这些文件是如何被更改的并在以后避免出现这种问题。升级过程中会覆盖被更改的默认配置文件，产生难以识别的问题。关于如何编辑 Splunk 软件中的配置文件的详细信息，请参阅“如何编辑配置文件”。
- 如果发现 $SPLUNK_HOME/bin 或 Windows %SPLUNK_HOME%\Python2.7\ 中的文件有问题，您可能需要重新安装。首先找出如何本地安装 Splunk 软件，确定此过程是否会导致出现不同版本的文件混合的情况。即使关闭 Splunk 服务后，AIX 通过保持库文件打开也会产生此问题。在大部分平台上，Splunk 产品仍在运行时，升级 Splunk 产品会产生此问题。如果您无法确定如何出现这种情况，或者如何解决这种情况，使用 Splunk 支持识别问题。
- 如果无法读取某些文件，可能是因为已以两个或多个不同用户或安全上下文运行 Splunk 软件。在服务现用作其他上下文时无法读取一个用户或上下文在安装时新建的文件。或者，您可能已对这些文件的访问规则作出合法修改，但这并不常见。
- 如果完整性检查报告其无法读取或理解清单文件，则 $SPLUNK_HOME 中的清单文件可能丢失，或者您的文件访问权限有问题，或文件可能被破坏。您可能想评估是否是安装软件包中的所有文件将其放到安装目录中，以及清单文件内容是否和软件包中的内容相同。Splunk 软件工作时不需要清单文件，但是使用完整性检查时必须有清单文件。
- 如果完整性检查报告所有或绝大多数文件均不正确，Splunkd 和 etc/splunk.version 可能和安装剩余部分不符。尝试确定怎么会发生这种情况。这可能是因为大部分文件是您想要呈现的文件。
- 如果不是以上描述的模式，则您可能需要应用本地分析和故障排除技能，该等技能可能与 Splunk 支持一致。

监视控制台运行状况检查交互

监视控制台运行状况检查查询 server/status/installed-file-integrity 端点。启动时完整性检查运行时，此端点由结果填充。请参阅*《REST API 参考手册》*中的 server/status/installed-file-integrity。

如果 Splunk Enterprise 启动，同时禁用 limits.conf 中的完整性检查，则 REST 文件完整性信息将不可用。此外，手动运行不更新结果。

请参阅*《监视 Splunk Enterprise》*中的“访问和自定义运行状况检查”。

使用命令行界面（CLI）管理 Splunk Enterprise

关于 CLI

您可以使用 Splunk 平台的命令行界面（CLI）来监视、配置和运行搜索。该产品提供有 CLI 帮助说明，您可以通过终端或 shell 界面进行访问。本主题讨论如何访问此信息。

访问 CLI

Splunk 平台 CLI 命令位于 `$SPLUNK_HOME/bin`（或 Windows 主机的 `%SPLUNK_HOME%\bin`。）

您可以通过点击**设置 > 服务器设置 > 常规设置**进入 Splunk Web，找到实例中的 Splunk 安装路径。

要访问 Splunk 平台 CLI，您需要：

- Shell 提示符、命令提示符或 PowerShell 会话
- 访问 Splunk 平台实例或转发器或
- 对远程 Splunk 平台实例相应端口的访问权限。

CLI 帮助文档

如果您具有管理员权限，您不但可以使用 CLI 来执行搜索，还可以使用它来配置和监视您的 Splunk 实例。用于配置和监视 Splunk 的 CLI 命令并不是搜索命令。搜索命令是 `search` 和 `dispatch` CLI 命令的参数。某些命令需要您使用用户名和密码进行验证，或者指定目标 Splunk 服务器。

您可以使用以下命令查找 CLI 的帮助信息：

UNIX	Windows
./splunk help	./splunk help

有关如何访问特定 CLI 命令或任务帮助的更多信息，请参阅本手册中的“获取 CLI 相关帮助”和“CLI 管理命令”。

在 *nix 上使用 CLI

如果您具有管理员或 root 权限，您可以将您的 Splunk 平台安装的顶级目录 `$SPLUNK_HOME/bin` 添加到 shell 路径中，以简化 CLI 访问。

此示例适用于在默认位置安装 Splunk Enterprise 的 Linux/BSD/Solaris 用户：

```
# export SPLUNK_HOME=/opt/splunk
# export PATH=$SPLUNK_HOME/bin:$PATH
```

此示例适用于在默认位置安装 Splunk Enterprise 的 Mac 用户：

```
# export SPLUNK_HOME=/Applications/Splunk
# export PATH=$SPLUNK_HOME/bin:$PATH
```

现在，您可以使用如下方式来调用 CLI 命令：

```
./splunk <command>
```

当在 CLI 会话中操作时，要设置 `$SPLUNK_HOME` 环境变量：

- 在 *nix 中： `source /opt/splunk/bin/setSplunkEnv`
- 在 Windows 中： `splunk.exe envvars > setSplunkEnv.bat & setSplunkEnv.bat`

Mac OS X 需要提升权限来访问系统文件或目录。

Mac OS X 需要超级用户权限以运行那些访问系统文件或目录的任何命令。请使用 **sudo** 或 "su -"（在新 shell 中作为 root）来运行 CLI 命令。建议使用 sudo。（用户 "root" 默认情况下未启用，但任何管理员用户都可以使用 sudo。）

在 Windows 上使用 CLI

要在 Windows 的 Splunk Enterprise 中运行 CLI 命令，以管理员身份使用 PowerShell 或命令提示符。

1. 以管理员身份打开 PowerShell 窗口或命令提示符。
2. 更改至 Splunk Enterprise `bin` 目录。
3. 运行 Splunk 命令，方法是键入 `splunk`，然后是子命令和任何所需参数。

```
C:\Program Files\Splunk\bin> splunk status
splunkd is running.
splunk helpers are running.
```

您可以从 CLI 中运行诸多命令，并执行多个任务。关于使用 CLI 的帮助信息，请参阅“获取 CLI 相关帮助”。

在 Windows 上设置 Splunk 环境变量

在 Windows 上使用 CLI 无需设置 Splunk 环境变量。如果运行 CLI 命令时要使用变量，则必须手动设置变量。

在命令提示符下设置临时变量

1. 打开 PowerShell 窗口或命令提示符。
2. 使用 Powershell 变量或环境变量来设置 Splunk Enterprise 的快速引用路径。

PowerShell	命令提示符	
`$splunk_home="C:\Program Files\Splunk"`	`set SPLUNK_HOME="C:\Program Files\Splunk"`	

3. 运行 Splunk CLI 命令时调用该变量。

PowerShell	命令提示符	
`& $splunk_home\bin\splunk status`	`%SPLUNK_HOME%\bin\splunk status`	

设置永久环境变量

要设置永久变量，请参阅“在 MS TechNet 上添加或更改环境变量”。

问答

有什么问题吗？请访问 Splunk Answers 以查看在 Splunk 社区中围绕使用 CLI 有哪些问题和解答。

获取 CLI 相关帮助

本主题介绍如何访问 Splunk 内置的 CLI 帮助参考，其中包含有关 CLI 命令以及如何使用这些命令的信息。本主题还简要介绍了通用参数，这些参数可以用于任何 CLI 命令。

访问 CLI 帮助参考

如果您需要查找某个 CLI 命令或其语法信息，可使用 Splunk 内置的 CLI 帮助参考。

首先，您可以使用 `help` 命令来访问默认的帮助信息：

```
./splunk help
```

此命令将返回一个对象的列表，以帮助您访问更多特定的 CLI 帮助主题，例如，管理命令、群集化、转发、许可授权、搜索等。

通用参数

某些命令需要您使用用户名和密码进行验证，或者指定目标主机或应用。对于这些命令，您可以使用以下通用参数之一：`auth`、`app` 或 `uri`。

```
./splunk [command] [object] [-parameter <value> | <value>]... [-app] [-owner] [-uri] [-auth]
```

参数	描述

app	指定要运行命令的应用或命名空间；对于搜索，默认为搜索应用。
auth	指定登录凭据来执行要求登录时所需的命令。
owner	指定与对象关联的 owner/user 上下文；如果未指定，则默认为当前登录的用户。
uri	在任何指定的（远程）Splunk 服务器上执行命令。

app

在 CLI 中，app 是一个适用于许多命令的对象，例如 create app 或 enable app。不过，如果您希望对特定应用运行该命令，您也可以将其作为参数添加到某个 CLI 命令中。

语法：

```
./splunk command object [-parameter value]... -app appname
```

例如，当您在 CLI 中运行搜索时，则默认为搜索应用。如果想要在另一应用中运行搜索：

```
./splunk search "eventype=error | stats count by source" -detach f -preview t -app unix
```

auth

如果 CLI 命令要求验证，Splunk 将提示您提供用户名和密码。您还可以使用 -auth 标记来与命令一起传递这些信息。当您需要运行某个要求不同于当前登录用户的执行权限的命令时，auth 参数也非常有用。

语法：

```
./splunk command object [-parameter value]... -auth username:password
```

uri

如果您要在远程 Splunk 服务器上运行命令，可使用 -uri 标记来指定目标主机。

语法：

```
./splunk command object [-parameter value]... -uri specified-server
```

通过以下格式来指定目标 Splunk 服务器：

```
[http|https]://name_of_server:management_port
```

可以为 name_of_server 指定 IP 地址。支持 IPv4 和 IPv6 格式；例如，specified-server 可以使用：127.0.0.1:80 或 "[2001:db8::1]:80"。默认情况下，splunkd 仅在 IPv4 上侦听。要启用 IPv6 支持，请参阅“为 IPv6 配置 Splunk Enterprise”。

示例：以下示例从远程 "splunkserver" 的端口 8089 返回搜索结果。

```
./splunk search "host=fflanda error 404 *.gif" -auth admin -uri https://splunkserver:8089
```

有关您可以在远程服务器上运行的 CLI 命令的更多信息，请参阅本章中的下一个主题。

有用的帮助主题

在运行默认的 Splunk CLI 帮助时，您会看到列出的以下对象。

CLI 管理命令

可以使用 CLI 执行各种管理功能，例如，添加或编辑输入、更新配置设置和搜索。如果想要查看 CLI 管理命令类型的列表，请键入：

```
./splunk help commands
```

这些命令将在本手册下一个主题“CLI 管理命令”中进行更详细的介绍。

适用于索引器群集化的 CLI 帮助

索引器群集是一个 Splunk 功能，这些索引器已配置为复制数据以实现若干目标：数据可用性、数据保真度、灾难容错和获得改进的搜索性能。

您可以使用 CLI 来查看和编辑索引器群集节点上的群集化配置。要获得与群集化相关的命令和参数的列表，请键入：

```
./splunk help clustering
```

有关更多信息，请参阅*《管理索引器和群集》*手册中的“使用 CLI 配置群集”。

Splunk 控制的 CLI 帮助

可使用 CLI 来启动、停止和重新启动 Splunk 服务器 (splunkd) 和 web (splunkweb) 进程，或者检查相关进程是否正在运行。要获得控制的列表，请键入：

```
./splunk help controls
```

有关更多信息，请参阅《管理员手册》中的“启动和停止 Splunk”。

数据管理的 CLI 帮助

向 Splunk 添加数据时，Splunk 将对数据进行处理并将其存储在**索引**中。默认情况下，您提供给 Splunk 的数据会存储在 **main** 索引中，但您可以使用 CLI 为 Splunk 新建和指定其他索引，以用于其他数据导入。要查看用于管理索引和数据存储区的对象和命令的列表，请键入：

```
./splunk help datastore
./splunk help index
```

有关更多信息，请参阅*《管理索引器和群集》*手册中的“关于管理索引”、“新建自定义索引”和“从 Splunk 移除索引和数据”。

分布式搜索部署的 CLI 帮助

可使用 CLI 查看和管理分布式搜索配置。要获得对象和命令的列表，请键入：

```
./splunk help distributed
```

有关分布式搜索的信息，请阅读*《分布式搜索》*手册中的“关于分布式搜索”。

转发和接收的 CLI 帮助

Splunk 部署可包括数十个或数百个将数据转发到一个或多个接收器的转发器。可使用 CLI 查看和管理数据转发配置。要获得转发对象和命令的列表，请键入：

```
./splunk help forwarding
```

有关更多信息，请参阅《*转发数据*》手册中的“关于转发和接收”*。*

搜索和实时搜索的 CLI 帮助

您还可以使用 CLI 来运行历史搜索和实时搜索。可以使用以下命令访问 Splunk 搜索和实时搜索的帮助页面：

```
./splunk help search
./splunk help rtsearch
```

此外，还可以使用 search-commands、search-fields 和 search-modifiers 对象来访问各自的帮助说明和语法：

```
./splunk help search-commands
./splunk help search-fields
./splunk help search-modifiers
```

注意：Splunk CLI 将空格解释为换行。对于包含多个单词的主题名称，应在单词之间使用短划线。

要了解有关使用 CLI 搜索数据的更多信息，请参阅《搜索参考手册》中的“关于 CLI 搜索”和“CLI 搜索语法”以及《搜索手册》中的“CLI 中的实时搜索和报表”。

CLI 管理命令

本主题将介绍 CLI 管理命令，也就是用于管理和配置 Splunk 服务器和分布式部署的命令。

有关访问 CLI 以及 CLI 帮助中所含内容的信息，请参阅上一主题“获取 CLI 相关帮助”。如果您要查找如何使用 CLI 运行搜索的详细信息，请参阅*搜索参考*中的“关于 CLI 搜索”。

您的 Splunk 角色配置决定了您可以执行哪些操作（命令）。多数操作需要您具备 Splunk 管理员权限。有关设置和管理 Splunk 用户与角色的更多信息，请参阅*管理员手册*中的“关于用户和角色”主题。

Splunk CLI 命令语法

CLI 命令的一般语法为：

```
./splunk <command> [<object>] [[-<parameter>] <value>]...
```

请注意以下事项：

- 某些命令不需要对象或参数。
- 某些命令具有可由其值单独指定的默认参数。
- 某些命令可使用其他参数，如 -uri 或 -auth。请参阅获取 CLI 相关帮助的“通用参数”部分。

命令、对象和示例

命令是您可以执行的操作。您在**对象**上执行操作。

大多数 CLI 管理命令都作为 Splunk Enterprise REST API 的替代接口提供，而不需要使用 curl 命令。如果要查找 CLI 命令对象的其他用途或选项，请查看《REST API 参考手册》并搜索对象名称。

命令	对象	示例
add	exec，forward-server，index，licenser-pools，licenses，master，monitor，oneshot，saved-search，search-server，tcp，udp，user	1. 向数据来源 /var/log 中添加监视目录和文件输入。 ./splunk add monitor /var/log/
		2. 向实例（搜索头在其间进行搜索）列表中添加另一个索引器群集管理器节点。 ./splunk add cluster-master https://127.0.0.1:8089 -secret testsecret -multisite false'
anonymize	source	1. 取代位于 /tmp/messages 的文件中的标识数据，如用户名和 IP 地址。 ./splunk anonymize file -source /tmp/messages
		2. 使用 name-terms（包含常见英文名列表的文件）使 Mynames.txt 匿名。 ./splunk anonymize file -source /tmp/messages -name_terms $SPLUNK_HOME/bin/Mynames.txt
apply	cluster-bundle，shcluster-bundle	1. 在对等节点上激活已验证的软件包。 ./splunk apply cluster-bundle
		2. Skip-validation 是一个可选参数，可将其配置来跳过在索引器群集管理器节点和对等节点上的软件包验证。 ./splunk apply cluster-bundle --skip-validation

		3. 若需有关 shcluster-bundle 的示例，请参见*《分布式搜索》*手册中的“部署配置软件包”。
检查完整性	无	1. 使用可选参数 verbose 检查索引完整性。 ./splunk check-integrity -index $SPLUNK_HOME/var/lib/splunk/defaultdb/ [-<verbose>] 2. 使用可选参数 verbose 检查数据桶完整性。 ./splunk check-integrity -bucketPath $SPLUNK_HOME/var/lib/splunk/defaultdb/db/ [-<verbose>]
clean	all, eventdata, globaldata, inputdata, userdata, kvstore	1. 从 Splunk 安装中删除数据。eventdata 指索引为原始日志文件的导出事件。 ./splunk clean eventdata 2. globaldata 指主机标记和来源类型别名。 ./splunk clean globaldata
cmd	btool, classify, locktest, locktool, parsetest, pcregextest, regextest, searchtest, signtool, walklex	1. 运行带有各种环境变量设置的 splunk btool inputs list 命令字符串。运行 splunk envvars 以查看设置了哪些环境变量。 ./splunk cmd btool inputs list 2. 显示 bin 目录的内容。 ./splunk cmd /bin/ls
Create	app	1. 根据模板构建 myNewApp。 ./splunk create app myNewApp -template sample_app
createssl	无	
diag	无	
disable	app, boot-start, deploy-client, deploy-server, dist-search, index, listen, local-index, maintenance-mode, perfmon, webserver, web-ssl, wmi	1. 在索引器群集化中对等节点上禁用维护模式。必须在管理器节点上调用。 './splunk disable maintenance-mode' 2. 禁用 logs1 集合。 ./splunk disable eventlog logs1
display	app, boot-start, deploy-client, deploy-server, dist-search, jobs, listen, local-index	1. 为所有应用显示状态信息，如启用/禁用。 ./splunk display app 2. 为 unix 应用显示状态信息。 ./splunk display app unix
edit	app, cluster-config, shcluster-config, exec, index, licenser-localslave, licenser-groups, monitor, saved-search, search-server, tcp, udp, user	1. 编辑当前的群集化配置。 ./splunk edit cluster-config -mode slave -site site2 2. 编辑 /var/log 中的监视目录输入，并且只从该文件的结尾读取。 ./splunk edit monitor /var/log -follow-

		only true
enable	app, boot-start, deploy-client, deploy-server, dist-search, index, listen, local-index, maintenance-mode, perfmon, webserver, web-ssl, wmi	1. 在索引器群集化中对等节点上设置维护模式。必须在管理器节点上调用。 './splunk enable maintenance-mode'
		2. 启用 col1 集合。 ./splunk enable perfmon col1
export	eventdata, user data	1. 将数据从 Splunk 服务器导出到 /tmp/apache_raw_404_logs 中。 ./splunk export eventdata -index my_apache_data -dir /tmp/apache_raw_404_logs -host localhost -terms "404 html"
fsck	repair, scan, clear-bloomfilter	
help	无	
import	userdata	1. 从目录 /tmp/export.dat 导入用户帐户数据。 ./splunk import userdata -dir /tmp/export.dat
install	app	1. 从 foo.tar 安装应用到本地 Splunk 服务器。 ./splunk install app foo.tar
		2. 从 foo.tgz 安装应用到本地 Splunk 服务器。 ./splunk install app foo.tgz
list	cluster-buckets, cluster-config, cluster-generation, cluster-peers, deploy-clients, excess-buckets, exec, forward-server, index, inputstatus, licenser-groups, licenser-localslave, licenser-messages, licenser-pools, licenser-slaves, licenser-stacks, licenses, jobs, master-info, monitor, peer-info, peer-buckets, perfmon, saved-search, search-server, tcp, udp, user, wmi	1. 列出所有活跃的监视目录和文件输入。这显示当前或最近被 Splunkd 监视到发生更改的文件和目录。 ./splunk list monitor
		2. 列出所有堆叠间的所有许可证。 ./splunk list licenses
login, logout	无	
迁移	kvstore-storage-engine	1. 将 KV 存储迁移到目标存储引擎。 ./splunk migrate kvstore-storage-engine --target-engine wiredTiger
offline	无	1. 用于以不影响现有搜索的方式关闭对等节点。管理器节点为数据桶重新安排主要对等节点，并在设置了 enforce-counts 标记的情况下修复群集状态。 ./splunk offline
		2. 因为使用了 --enforce-counts 标记，在该对等节点停止之前该群集已完全修复。 ./splunk offline --enforce-counts

package	app	1. 打包 stubby 应用并返回它的 uri。 ./splunk package app stubby
重新平衡	群集数据	1. 重新平衡所有索引的数据。 ./splunk rebalance cluster-data -action start
		2. 使用可选 -index 参数重新平衡单个索引的数据。 ./splunk rebalance cluster-data -action start -index $SPLUNK_HOME/var/lib/splunk/defaultdb/
		3. 使用可选 -max_runtime 参数重新平衡数据，以将重新平衡活动限制在 5 分钟内。 ./splunk rebalance cluster-data start -max_runtime interval_: 5
rebuild	无	
refresh	deploy-clients	
reload	ad, auth, deploy-server, exec, index, listen, monitor, registry, tcp, udp, perfmon, wmi	1. 重新加载部署服务器，整个加载或通过服务器类加载。 ./splunk reload deploy-server
		2. 重新加载 my_serverclass。 ./splunk reload deploy-server -class my_serverclass
		3. 重新加载特定索引配置。要重新加载所有索引，请不要包含索引名称。 ./splunk reload index [index_name]
remove	app, cluster-peers, excess-buckets, exec, forward-server, index, jobs, licenser-pools, licenses, monitor, saved-search, search-server, tcp, udp, user	1. 从实例（搜索头在其间进行搜索）列表中移除群集管理器节点。使用 testsecret 作为 secret/pass4SymmKey。 './splunk remove cluster-master https://127.0.0.1:8089 -secret testsecret'
		2. 移除 Unix 应用。 ./splunk remove app unix
回滚	cluster-bundle	将您的 Splunk Web 配置软件包回滚至之前的版本。从管理器节点运行此命令： ./splunk rollback cluster-bundle
rolling-restart	cluster-peers, shcluster-members	
rtsearch	app, batch, detach, earliest_time, header, id, index_earliest, index_latest, max_time, maxout, output, preview, rt_id, timeout, uri, wrap	1. 对于单独的行运行实时搜索，以避免自动换行。 ./splunk rtsearch 'error' -wrap false
		2. 运行实时搜索。正如使用传统的搜索命令一样使用 rtsearch。 ./splunk rtsearch 'eventtype=webaccess

		error | top clientip'
search	app, batch, detach, earliest_time, header, id, index_earliest, index_latest, latest_time, max_time, maxout, output, preview, timeout, uri, wrap	1. 使用通配符作为搜索对象。触发异步搜索并显示搜索的任务 id 和 ttl。 ./splunk search '*' -detach true 2. 使用 eventtype=webaccess error 作为搜索对象。行的长度超过终端宽度时不进行自动换行。 ./splunk search 'eventtype=webaccess error' -wrap 0
设置	datastore-dir, deploy-poll, default-hostname, default-index, minfreemb, servername, server-type, splunkd-port, web-port, kvstore-port	1. 设置强制索引准备位。 ./splunk set indexing-ready 2. 设置 bologna:1234 作为部署服务器以向其轮询更新。 ./splunk set deploy-poll bologna:1234
show	config, cluster-bundle-status, datastore-dir, deploy-poll, default-hostname, default-index, jobs, minfreemb, servername, splunkd-port, web-port, kvstore-port, kvstore-status, shcluster-kvmigration-status	1. 显示当前日志级别。 ./splunk show log-level 2. 显示 Splunk Enterprise 被配置为向哪个部署服务器轮询。 ./splunk show deploy-poll
spool	无	
start-shcluster-migration	kvstore	1. 在群集环境中，将 KV 存储迁移到目标存储引擎。 ./splunk start-shcluster-migration kvstore -storageEngine wiredTiger 2. 检查 KV 存储是否已准备好迁移到目标存储引擎。 ./splunk start-shcluster-migration kvstore -storageEngine wiredTiger -isDryRun
start,stop,restart	splunkd, splunkweb	
status	splunkd, splunkweb	
validate	index, files, cluster-bundle	1. 验证主索引，并确认在 indexes.conf 中指定的索引路径。 ./splunk validate index main 2. 若需 files 示例，请参阅“检查 Splunk 软件文件完整性”。 3. 若需 cluster-bundle 示例，请参阅*《管理索引器和索引器群集》*手册中的“更新通用对等节点配置和应用”。
version	无	

使用 CLI 导出搜索结果

您可以使用 CLI 导出大量的搜索结果。有关如何使用 CLI 导出搜索结果的信息，以及有关 Splunk Enterprise 提供的其他导

出方法的信息，请参阅*搜索手册*中的“导出搜索结果”。

CLI 故障排除

Splunk CLI 还包含有助于故障排除的工具。使用 CLI 命令 cmd 调用这些工具：

```
./splunk cmd <tool>
```

要获得 CLI 实用工具的列表，请参阅*故障排除手册*中的“提供支持的命令行工具”。

使用 CLI 来管理远程 Splunk Enterprise 实例

您可以对任何 CLI 命令使用 uri 参数，以便将此命令发往另一个 Splunk Enterprise 实例，并在您的本地服务器上查看结果。

本主题介绍：

- 有关使用 uri 参数的语法。
- 您无法远程使用的 CLI 命令。

注意：默认情况下禁止管理员用户的远程 CLI 访问，除非您已更改了默认密码。

启用远程访问

如果您在使用 Splunk Free（无登录凭据），则默认情况下禁止远程访问，除非您编辑 $SPLUNK_HOME/etc/system/local/server.conf 的 [general] 段落并设置以下值：

```
allowRemoteLogin=always
```

注意：add oneshot 命令工作于本地实例，但不能远程使用。

有关编辑配置文件的更多信息，请参阅本手册中的“关于配置文件”。

将 CLI 命令发往远程服务器

对任何 CLI 命令使用 uri 参数的一般语法为：

```
./splunk command object [-parameter <value>]... -uri <specified-server>
```

uri 值 specified-server 的格式为：

```
[http|https]://name_of_server:management_port
```

此外，name_of_server 可以是远程 Splunk Enterprise 实例的完整解析域名或 IP 地址。

重要提示：该 uri 值是您在远程 Splunk Enterprise 实例的 web.conf 中定义的 mgmtHostPort 值。有关更多信息，请参阅本手册中的 web.conf 参考。

有关 CLI 的一般信息，请参阅本手册中的“关于 CLI”和“获取 CLI 相关帮助”。

搜索远程实例

以下示例从远程 "splunkserver" 返回搜索结果。

```
./splunk search "host=fflanda error 404 *.gif" -uri https://splunkserver:8089
```

有关使用 CLI 来执行搜索语法的详细信息，请参阅*《搜索参考手册》*中的“关于 CLI 搜索”。

查看远程实例上已安装的应用

以下示例会返回在远程 "splunkserver" 上所安装应用的列表。

```
./splunk display app -uri https://splunkserver:8089
```

更改您的默认 URI 值

您可以使用 SPLUNK_URI 环境变量来设置默认 URI 值。如果您将此值更改为远程服务器的 URI，则在每次要访问远程服务器时无需包含 uri 参数。

要更改 SPLUNK_URI 的值，键入：

```
$ export SPLUNK_URI=[http|https]://name_of_server:management_port     # For Unix shells
C:\> set SPLUNK_URI=[http|https]://name_of_server:management_port     # For Windows shell
```

对于上述示例，您可以键入以下命令来更改 SPLUNK_URI 的值：

```
$ export SPLUNK_URI=https://splunkserver:8089
```

您无法远程运行的 CLI 命令

除了控制服务器的命令之外，您可以远程运行所有其他 CLI 命令。这些服务器控制命令包括：

- start, stop, restart
- status, version

通过访问 CLI 帮助参考，可查看所有 CLI 命令。请参阅本手册中的“获取 CLI 相关帮助”。

自定义 CLI 登录横幅

如果您提供 CLI 对数据的访问权限，则可能需要自定义登录横幅以通知您的用户监视情况、其法律义务和误用处罚。也可以为您的 CLI 登录添加其他安全性（采用基本验证的形式）。

要新建自定义登录横幅并添加基本验证，请将下列段落添加到本地 server.conf 文件中：

```
[httpServer]
cliLoginBanner = <string>
allowBasicAuth = true|false
basicAuthRealm = <string>
```

- 对于 cliLoginBanner = <string>

新建系统在提示输入验证凭据之前希望您的用户在 Splunk CLI 中看到的消息，如访问策略信息。默认值是无消息。

要新建多行横幅，请将各行置于逗号分隔列表中，每一行都用双引号引起来。例如：

```
cliLoginBanner="Line 1","Line 2","Line 3"
```

要在横幅文本中包括双引号，请在行中使用两个引号。例如：

```
cliLoginBanner="This is a line that ""contains quote characters""!"
```

- 对于 allowBasicAuth = true|false:

如果您希望除了 Splunk 的现有 (authtoken) 验证外，客户端还需使用 HTTP Basic 验证对 Splunk 服务器进行已验证的请求，则将此值设置为 true。这对允许有规划地访问 REST 端点以及从 Web 浏览器访问 REST API 都非常有用。UI 或 CLI 则不需要此设置。默认值为 true。

- 对于 basicAuthRealm = <string>:

如果您已启用 allowBasicAuth，请使用此属性添加在提示凭据时可显示在 Web 浏览器中的文本字符串。您可以显示描述服务器和/或访问策略的短消息。默认情况下，显示的文本为 "/splunk"。

启动 Splunk Enterprise 并执行初始任务

启动和停止 Splunk Enterprise

本主题介绍了启动和停止 Splunk Enterprise 的常用方式。

在 Windows 上启动 Splunk Enterprise

默认情况下，Splunk Enterprise 安装文件会放置在以下路径：`C:\Program Files\Splunk`。文档会将此默认路径称为 `%SPLUNK_HOME%`。Splunk Enterprise 安装一个名为 `splunkd` 的服务。正常操作时，只有 `splunkd` 服务会运行，并处理所有 Splunk Enterprise 操作，包括 Splunk Web 界面。

在 Windows 中，您可以通过以下一种方法来启动和停止 Splunk Enterprise：

使用 Windows 服务控制面板。

1. 单击“开始”按钮，然后键入“服务”。
2. 选择“服务”控制面板选项。
3. 在“服务”控制面板中，找到 `Splunkd Service` 服务。
4. 启动或停止该服务。

使用 `NET START` 或 `NET STOP` 命令。

1. 打开管理命令提示符。
2. 类型：`NET START splunkd` 或 `NET STOP splunkd`。

使用 Splunk Enterprise 可执行文件。

1. 打开管理命令提示符。
2. 将路径更改为 `%SPLUNK_HOME%\bin`。
3. 类型：`splunk [start|stop|restart]`。

在 *nix 平台上启动 Splunk Enterprise

默认情况下，使用软件包（.rpm 或 .deb）的 Splunk Enterprise 安装文件会安装到 `/opt/splunk` 路径中。文档会将此默认路径称为 `$SPLUNK_HOME`。Splunk Enterprise 会安装一个名为 `splunkd` 的进程。正常操作时，只有 `splunkd` 进程会运行，并处理所有 Splunk Enterprise 操作，包括 Splunk Web 界面。

在 *nix 平台中，您可以通过以下一种方法来启动和停止 Splunk Enterprise：

使用 Splunk Enterprise 进程。

1. 以运行 Splunk Enterprise 进程的用户帐户登录。
2. 打开 shell 提示符。
3. 将路径更改为 `$SPLUNK_HOME/bin`
4. 类型：`splunk [start|stop|restart]`。

使用服务命令。如果您已将 Splunk Enterprise 配置为在开机时启动，则需使用服务命令与该进程交互。使用服务命令可确保在 init.d 脚本中配置的用户可启动该进程。请参阅“在 *nix 平台上启用开机时启动”。

1. 打开 shell 提示符。
2. 类型：`splunkd service [start|stop|restart]`。

使用 systemd 命令。如果您已将 Splunk Enterprise 配置为使用 systemd，则需使用 systemctl 命令与该进程交互。请参阅“通过 enable boot-start 配置 systemd”。

1. 打开 shell 提示符。
2. 类型：`systemctl [start|stop|restart] Splunkd.service`。

从 Splunk Web 重新启动 Splunk Enterprise

您可以从 Splunk Web 中重新启动 Splunk Enterprise：

1. 以管理员角色登录 Splunk Web
2. 在 Splunk Web 中，转至**设置** > **服务器控制**
3. 选择“重新启动 Splunk”

检查 Splunk Enterprise 是否正在运行

要确认 Splunk Enterprise 进程是否正在运行，请执行以下操作：

在 * nix 平台上使用“状态”命令。

1. 以运行 Splunk Enterprise 进程的用户帐户登录。
2. 打开 shell 提示符。
3. 将路径更改为 $SPLUNK_HOME/bin。
4. 类型：splunk status。

在 Windows 中使用“状态”命令。

1. 打开管理命令提示符。
2. 将路径更改为 %SPLUNK_HOME%\bin。
3. 类型：splunk status。

在 * nix 平台上使用进程查看器命令

1. 打开 shell 提示符。
2. 类型：ps aux | grep splunkd | grep -v grep。
3. 寻找正在运行的进程。

在 Windows 中使用进程列表命令。

1. 打开 powershell 提示符。
2. 类型：Get-process splunkd。
3. 寻找正在运行的进程。

将 Splunk Enterprise 配置为开机时启动

在大多数操作系统中，您可以将 Splunk 软件配置为计算机和操作系统启动后自动运行。这可减少发送数据和接收数据发生中断。所有本地 Splunk 软件版本均可通过这种方式配置。在 *nix 平台上，软件安装完之后，您必须手动配置软件以在开机时启动。

您可以用 sudo 命令以根用户或正常用户身份配置软件。绝大部分分布均包含 sudo，如果您的分布没有，则您应咨询分布帮助人员以进行下载、安装及配置。

在 Windows 平台上启用开机时启动

在 Windows 上，安装程序将 Splunk 软件配置为开机时启动。要禁用此特性，请参阅本主题末尾的“在 Windows 上禁用开机时启动”。

在 *nix 平台上启用开机时启动

Splunk 提供了一个工具，可以更新您的系统启动配置，以便使软件能够在系统启动时启动。该工具会新建 init 脚本（或做出类似的配置更改，具体取决于您的操作系统）。

1. 登录您已安装了 Splunk 软件且想要配置为开机时运行的计算机。
2. 如有可能，变为根用户。否则，您必须用 sudo 工具运行以下命令。
3. 运行以下命令：
   ```
   [sudo] $SPLUNK_HOME/bin/splunk enable boot-start
   ```

以非根用户身份启用开机时启动

如果不以根用户身份运行 Splunk 软件，您可以传递 -user 参数以指定 Splunk 软件用户。您想运行 Splunk 软件想要使用的用户身份必须已经存在。如果该用户不存在，在运行此流程前新建用户。

以下程序会以用户 'bob' 的身份将 Splunk 软件配置为开机时启动。您可以将 'bob' 替换为在本地计算机开机时启动 Splunk 软件所使用的用户。

1. 登录计算机。
2. 成为根用户。
3. 运行以下命令：
   ```
   [sudo] $SPLUNK_HOME/bin/splunk enable boot-start -user bob
   ```
4. 将 Splunk 安装目录及其所有文件所有权改为用户 bob 所有：
   ```
   [sudo] chown -R bob $SPLUNK_HOME
   ```

5. 使用文本编辑器打开 /etc/init.d/splunk 进行编辑。
6. 查看“更改前”和“更改后”表格中的更改。注意添加的用户字段和｛USER｝变量，并使用单引号封装服务命令。init.d 服务文件将根据 *nix 发行版和版本存在细微差别。
7. 使用“更改后”表格中所示的更改更新服务文件：

更改前

```
RETVAL=0

. /etc/init.d/functions

splunk_start() {
  echo Starting Splunk...
  "$SPLUNK_HOME/bin/splunk" start --no-prompt --answer-yes
  RETVAL=$?
  [ $RETVAL -eq 0 ] && touch /var/lock/subsys/splunk
}
splunk_stop() {
  echo Stopping Splunk...
 "$SPLUNK_HOME/bin/splunk" stop
  RETVAL=$?
  [ $RETVAL -eq 0 ] && rm -f /var/lock/subsys/splunk
}
splunk_restart() {
  echo Restarting Splunk...
  "$SPLUNK_HOME/bin/splunk" restart
  RETVAL=$?
  [ $RETVAL -eq 0 ] && touch /var/lock/subsys/splunk
}
splunk_status() {
  echo Splunk status:
  "$SPLUNK_HOME/bin/splunk" status
  RETVAL=$?
}
case "$1" in
```

更改后

```
RETVAL=0
USER=bob

. /etc/init.d/functions

splunk_start() {
  echo Starting Splunk...
  su - ${USER} -c '"$SPLUNK_HOME/bin/splunk" start --no-prompt --answer-yes'
  RETVAL=$?
  [ $RETVAL -eq 0 ] && touch /var/lock/subsys/splunk
}
splunk_stop() {
  echo Stopping Splunk...
  su - ${USER} -c '"$SPLUNK_HOME/bin/splunk" stop'
  RETVAL=$?
  [ $RETVAL -eq 0 ] && rm -f /var/lock/subsys/splunk
}
splunk_restart() {
  echo Restarting Splunk...
  su - ${USER} -c '"$SPLUNK_HOME/bin/splunk" restart'
  RETVAL=$?
  [ $RETVAL -eq 0 ] && touch /var/lock/subsys/splunk
}
splunk_status() {
  echo Splunk status:
  su - ${USER} -c '"$SPLUNK_HOME/bin/splunk" status'
  RETVAL=$?
}
case "$1" in
```

确认各 splunk 命令两边有单引号。

8. 保存文件并将其关闭。

您下次启动计算机时更改生效。

在运行 systemd 的计算机上启用开机时启动

在使用 systemd 系统管理器的 Linux 机器上，您可以配置 Splunk Enterprise 以使用 systemd 进行控制。默认情况下，Splunk Enterprise 会自行配置以作为 init 管理的服务运行，并且不会使用 systemd。

1. 登录您已安装了 Splunk 软件且想要配置为开机时运行的计算机。
2. 如有可能，变为根用户。否则，您必须用 sudo 工具运行以下命令。
3. 运行以下命令：
   ```
   [sudo] $SPLUNK_HOME/bin/splunk enable boot-start -user bob -systemd-managed 1
   ```

请参阅“将 Splunk Enterprise 作为 systemd 服务运行”获取 Splunk Enterprise 和 systemd 相关的其他信息。

在运行 AIX 的计算机上启用开机时启动

这些说明适用于 Splunk Enterprise 和 Splunk 通用转发器的 AIX 版本。Splunk 不提供 AIX 版本低于 6.3.0 的 Splunk Enterprise 版本。

AIX 版本的 Splunk 不会自行注册为在计算机开机后自动启动。您可以配置以使用系统资源控制器 (SRC) 处理开机时启动。

当您在 AIX 系统上启用开机时启动时，Splunk 软件和 AIX SRC 交互，以启用自动启动和停止 Splunk 服务。

`mkssys -G splunk -s splunkd -p <path to splunkd> -u <splunk user> -a _internal_exec_splunkd -S -n 2 -f 9`
`mkssys -G splunk -s splunkweb -p <path to python> -u <splunk user> -a _internal_exec_splunkweb -S -n 15 -f 9` （仅限在 Splunk Enterprise 上）

当您启用开机自动启动，SRC 会处理 Splunk Enterprise 服务的运行状态。您必须使用不同的命令来手动启动和停止 Splunk 软件。

- /usr/bin/startsrc -s splunkd 用于手动启动 Splunk 软件。
- /usr/bin/stopsrc -s splunkd 用于手动停止 Splunk 软件。

如果您尝试使用 ./splunk [start|stop] 方法从 $SPLUNK_HOME 目录启动和停止软件，SRC 会捕获此次尝试并显示以下消息：

```
Splunk boot-start is enabled. Please use /usr/bin/[startsrc|stopsrc] -s splunkd to [start|stop] Splunk.
```

要防止出现这种消息，并恢复从 $SPLUNK_HOME 目录启动和停止 Splunk Enterprise 的能力，请禁用开机时启动：

```
[sudo] ./splunk disable boot-start
```

- 有关 mkssys 命令行参数的更多信息，请参阅 IBM pSeries 和 AIX 信息中心网站上的“Mkssys 命令”。
- 有关 SRC 的更多信息，请参阅 IBM 知识中心网站上的“系统资源控制器”。

在 AIX 上启用开机时启动以根用户身份运行 Splunk 软件

1. 登录 AIX 计算机。
2. 如有可能，变为根用户。或者，您必须将 sudo 预加到以下命令示例中。如果 AIX 实例中没有 sudo，您必须下载、安装并配置。
3. 改为 Splunk bin 目录。
4. 启用开机时启动：
   ```
   [sudo] ./splunk enable boot-start
   ```

在 AIX 上启用开机时启动以非根用户身份运行 Splunk 软件

1. 登录 AIX 计算机。
2. 如有可能，变为根用户。或者，您必须将 sudo 预加到以下命令示例中。如果 AIX 实例中没有 sudo，您必须下载、安装并配置。
3. 新建 Splunk 应以其身份运行的用户帐户。例如，如果 splunk 用户应运行软件：
   ```
   [sudo] mkuser splunk
   [sudo] chown -R splunk <Splunk directory>
   ```
4. 改为 Splunk bin 目录。
5. 启用开机时启动并以运行软件的用户身份指定 -user 标记。
   ```
   [sudo] ./splunk enable boot-start -user <user that Splunk should run as>
   ```

在 Mac 操作系统中启用开机时启动

Splunk 软件自动在启动 Mac 的卷上的目录 /System/Library/StartupItems 中新建脚本和配置文件。您的 Mac 启动时运行此脚本，关闭 Mac 时自动停止 Splunk。

如果您想启用，仍可以手动启用开机时启动。您必须具有根级权限或使用 sudo 运行以下命令。要使用 sudo，您必须至少具有 Mac 的管理员访问权限。如果您将 Splunk 软件安装到不同目录，用实例位置替换以下示例。

1. 登录计算机。
2. 打开终端应用
3. 改为 Splunk bin 目录：

   ```
   cd /Applications/Splunk/bin
   ```
4. 启用开机时启动：

   ```
   [sudo] ./splunk enable boot-start
   ```

以非根用户身份在 Mac 操作系统中启用开机时启动

1. 登录计算机。
2. 打开终端应用
3. 改为 Splunk bin 目录：

   ```
   cd /Applications/Splunk/bin
   ```
4. 启用开机时启动：

   ```
   [sudo] ./splunk enable boot-start -user <user Splunk Enterprise should run as>
   ```
5. 打开 /Library/LaunchItems/com.splunk.plist 进行编辑。
6. 查找以 <dict> 开头的行。
7. 紧跟在此行后面添加以下代码块：

   ```
   <key>UserName</key>
   <string><user Splunk Enterprise should run as></string>
   ```
8. 保存文件并将其关闭。

您下次启动计算机时更改生效。

禁用开机时启动

如果您打算禁止 Splunk 软件在开机时启动，则运行：

```
[sudo] $SPLUNK_HOME/bin/splunk disable boot-start
```

在 Windows 上禁用开机时启动

默认情况下，Splunk 会在您启动 Windows 计算机时自动启动。您将 Splunk 进程（splunkd 和 splunkweb）配置为从 Windows 服务控制面板中手动启动。

获取有关开机时启动的更多帮助

要了解有关开机时启动及如何启用该功能的更多信息，请参阅以下内容：

- 文件 $SPLUNK_HOME/etc/init.d/README
- Splunk 软件实例上的 $SPLUNK_HOME/bin/splunk help boot-start 命令的输出。

将 Splunk Enterprise 作为 systemd 服务运行

Splunk Enterprise 7.2.2 及更高版本通过更新的 enable boot-start 命令（该命令允许您自动配置 systemd 以管理 splunkd 作为服务）为 Linux 上的 systemd 提供更多支持。

什么是 systemd？

systemd 是一个系统启动和服务管理器，可在大部分的主要 Linux 分发中广泛部署为默认的 init 系统。您可配置 systemd 将进程（如 splunkd）作为服务管理，并将系统资源分配至 cgroups 下的进程。

Systemd 优势

systemd 具备以下常规优势：

- 改进的并行处理。
- 通过标准化的单元文本文件简化配置。不需要脚本。
- 改进表示依赖关系的机制。例如，您可以在单元文件中指定必须在启动 splunkd 服务之前启动网络。

systemd 为 Splunk 部署提供其他特定优势：

- 开机时启动 splunkd。
- 运行期间监视和管理 splunkd 服务。
- 提供工具调试和故障排除开机时活动和服务活动。
- 可以更好地控制追踪 Splunk 实例状态的插件监视工具。
- 简化 Splunk Enterprise 中工作负荷管理所需的 cgroups 设置。请参阅*《工作负载管理》*手册中的“设置 Linux 用于工作负荷管理”。

配置 systemd 管理 Splunkd

以下有两种方式，您可以选择其中一种方式来配置 systemd 将 splunkd 作为服务进行管理：

- 通过 enable boot-start 配置 systemd。
- 手动配置 systemd。

如果您配置 systemd 使用 enable boot-start，则会自动创建一个 Splunk 服务单元文件。不需要额外的手动配置。

系统要求

- 要将 splunkd 作为 systemd 服务运行，需满足以下其中一个支持的 Linux 分发：
    - RHEL 7 和 8
    - CentOS 7 和 8
    - Ubuntu 16.04 LTS 和更高版本
    - Suse 12
- 要使用 enable boot-start 配置 systemd，需要 Splunk Enterprise 7.2.2 或更高版本。
- 要在 systemd 下启用 Splunk Enterprise 中的工作负荷管理，需要 systemd 219 或更高版本。有关更多信息，请参阅*《工作负荷管理》*手册中的“Linux 操作系统要求”。

权限要求

enable boot-start 命令和 systemd 有以下权限要求：

- 非根用户必须有超级用户权限才能使用 enable boot-start 配置 systemd。
- 非根用户必须有超级用户权限才能在 systemd 下运行 splunk start|stop|restart 操作。

  关于如何新建具有超级用户权限的新用户的说明，请参阅“Linux 文档”。

非特权用户必须使用 sudo 运行 splunk start|stop|restart 操作。否则，您必须进行身份验证。例如：

```
==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ===
Authentication is required to manage system services or units.
Multiple identities can be used for authentication:
 1.  <username_1>
 2.  <username_2>
Choose identity to authenticate as (1-2): 2
Password:
==== AUTHENTICATION COMPLETE ===
```

或者，您可以使用 enable boot-start 命令安装 polkit 规则，以允许非特权用户在 systemd 下运行 start|stop|restart 操作，而无需使用 sudo。有关说明，请参阅“安装 polkit 规则以提升用户权限”。

单元文件命名注意事项

enable boot-start 命令可新建名为 Splunkd.service 的 systemd 单元文件。单元文件名称以 splunk-launch.conf 中的 SPLUNK_SERVER_NAME 为依据，默认为 Splunkd。

如果出于任何原因，您将 SPLUNK_SERVER_NAME 值从 splunk-launch.conf 中删除，enable boot-start 会新建名为 splunkd.service 的单元文件（小写 "splunkd"），并在 splunk-launch.conf 文件中设置 SPLUNK_SERVER_NAME=splunkd。

运行 enable boot-start 时，您可以选择为单元文件指定其他名称。请参阅“指定单元文件名称”。

通过 enable boot-start 配置 systemd。

您可以配置 systemd 以使用 enable boot-start 命令将 splunkd 作为服务管理，如下所示：

1. 登录到您想要配置 systemd 将 splunkd 作为服务管理的计算机。
2. 停止 splunkd。

   ```
   $SPLUNK_HOME/bin/splunk stop
   ```
3. 如果您之前已使用 enable boot-start 启用 Splunk Enterprise 为开机时启动，运行 disable boot-start 移除 splunk init 脚本（位于 /etc/init.d）及其符号链接。

   ```
   [sudo] $SPLUNK_HOME/bin/splunk disable boot-start
   ```

   有关如何重新安装 splunk init 脚本的说明，请参阅“安装 splunk init 脚本”。
4. 运行 enable boot-start 命令，指定 -systemd-managed、-user 和 -group 参数，如下所示：

   ```
   [sudo] $SPLUNK_HOME/bin/splunk enable boot-start -systemd-managed 1 -user <username> -group <groupname>
   ```

   指定 -user 和 -group 是可选操作，但建议执行。如果未指定 -user，则会使用 SPLUNK_OS_USER（位于 splunk-launch.conf）。如果未定义 SPLUNK_OS_USER，则会使用 splunk 二进制文件的所有者。

   这将在 /etc/systemd/system 中安装以下 systemd 服务单元文件，默认名称为 Splunkd.service。要指定其他的单元文件名称，使用 -systemd-unit-file-name 选项。请参阅“指定 Splunkd 单元文件名称”。

   ```
   #This unit file replaces the traditional start-up script for systemd
   #configurations, and is used when enabling boot-start for Splunk on
   #systemd-based Linux distributions.

   [Unit]
   Description=Systemd service file for Splunk, generated by 'splunk enable boot-start'
   After=network.target

   [Service]
   Type=simple
   Restart=always
   ExecStart=/opt/splunk/bin/splunk _internal_launch_under_systemd
   KillMode=mixed
   KillSignal=SIGINT
   TimeoutStopSec=360
   LimitNOFILE=65536
   SuccessExitStatus=51 52
   RestartPreventExitStatus=51
   RestartForceExitStatus=52
   User=splunker
   Group=splunker
   Delegate=true
   CPUShares=1024
   MemoryLimit=<value>
   PermissionsStartOnly=true
   ExecStartPost=/bin/bash -c "chown -R splunker:splunker /sys/fs/cgroup/cpu/system.slice/%n"
   ExecStartPost=/bin/bash -c "chown -R splunker:splunker /sys/fs/cgroup/memory/system.slice/%n"

   [Install]
   WantedBy=multi-user.target
   ```

   创建服务单元文件时，MemoryLimit 值设置为可用的总系统内存（以字节为单位）。如果可用的总系统内存发生变化，MemoryLimit 的值不会更新。要更新单元文件中的 MemoryLimit 值，您可以手动编辑该值或使用 boot-start 命令禁用和重新启用 systemd。

   以下单元文件属性为必填项。在没有合适指导的情况下，请勿更改这些值。
   Type=simple
   Restart=always
   ExecStart=$SPLUNK_HOME/bin/splunk _internal_launch_under_systemd
   Delegate=true工作负荷管理需要此属性。请参阅“配置工作负荷管理”。

请勿使用以下属性。这些属性可能会导致 splunkd 在重新启动时失败。

```
RemainAfterExit=yes
ExecStop
```

有关更多信息，请参阅“Systemd 单元文件属性”。

5. 启动 splunkd。

   ```
   [sudo] $SPLUNK_HOME/bin/splunk start
   ```

   此操作会启动 splunkd 作为 systemd 服务。

   在 systemd 下，将 splunk start|stop|restart 命令映射到 systemctl start|stop|restart 命令。

6. 验证 splunkd 是否作为 systemd 服务运行。例如：

   ```
   $SPLUNK_HOME/bin/splunk status
   splunkd is running (PID: 24772).
   splunk helpers are running (PIDs: 24843 24857 24984 25032).
   ```

   或者，您可以使用 systemctl status <unit_file_name></unit_file_name> 检查 splunkd 进程是否正在运行。但是，在使用此命令时可能会出现一个短暂的时间延迟，在此期间 systemctl status 状态显示“活动”，而 splunk status 状态显示“splunkd 未运行”。

   配置 systemd 将 splunkd 作为服务管理会在这些位置创建 CPU 和内存 cgroups：

   ```
   CPU: /sys/fs/cgroup/cpu/system.slice/Splunkd.service<br>
   Memory: /sys/fs/cgroup/memory/system.slice/Splunkd.service
   ```

7. 对于分布式部署，请在所有搜索头和索引器上重复步骤 1-8。

enable boot-start 的其他选项

enable boot-start 命令支持以下其他选项：

安装 splunk init 脚本

在版本 7.2.2 和更高版本中，enable boot-start 命令添加控制在 /etc/init.d 中安装 splunk init 脚本还是在 /etc/systemd/system 中安装 Splunkd.service 单元文件的 -systemd-managed 0|1 选项。

要安装 splunk init 脚本，指定 -systemd-managed 0：

```
$SPLUNK_HOME/bin/splunk enable boot-start -systemd-managed 0 -user <username>
Init script installed at /etc/init.d/splunk.
Init script is configured to run at boot.
```

请参阅“配置 Splunk Enterprise 在开机时启动”。

在版本 7.2.2 到 7.2.x 中，如果您没有指定 -systemd-managed 选项，enable boot-start 命令默认为 -systemd-managed 1 并安装 Splunkd.service 单元文件。在版本 7.3.0 和更高版本中，此默认行为相反，enable boot-start 命令默认为 -systemd-managed 0 并安装 splunkinit 文件。

指定不同的单元文件名称

默认的 splunkd 单元文件名称为 Splunkd.service。您可以为单元文件指定其他名称，并使用 -systemd-unit-file-name 选项更新 splunk-launch.conf 中的 SPLUNK_SERVER_NAME 值。例如，新建名为 "splunk.server" 的单元文件：

```
$SPLUNK_HOME/bin/splunk enable boot-start -systemd-unit-file-name splunk
Overwriting present value (Splunkd) of 'SPLUNK_SERVER_NAME' in /opt/splunk/etc/splunk-launch.conf
Init script installed at /etc/systemd/system.
Init script is configured to run at boot.
```

有关更多信息，请参阅“单元文件命名注意事项”。

安装 polkit 规则以提升用户权限

在版本 8.1.1 和更高版本中，enable boot-start 命令添加了一个选项来安装 polkit 规则，允许非根用户在 systemd 下运行

start、stop 和 restart 操作，而无需使用 sudo。安装 polkit 规则可以减少管理员的开销，否则管理员必须将非特权用户添加到 sudoers 文件中才能在 systemd 下运行这些操作。

要安装 polkit 规则，请执行以下操作：

运行 enable boot-start 命令，指定 -create-polkit-rules 选项，如下所示：

```
./splunk enable boot-start -systemd-managed 1 -create-polkit-rules 1 -user <username>
```

如果您之前运行 enable boot-start 并指定了不同的用户，则必须将 $SPLUNK_HOME 的所有者更改为您为其创建 polkit 规则的新用户。例如：

```
chown -R <username> $SPLUNK_HOME
```

在使用 create-polkit-rules 选项安装 polkit 规则之前，如果您尚未在系统中安装 Polkit 库，则必须在系统中安装。

在全新安装中配置 systemd

要在全新的 Splunk Enterprise 安装中配置 systemd：

1. 在适当的目录中扩展安装包。例如：
   ```
   tar xvfz splunk_package_name.tgz -C /opt
   ```
2. 运行 enable boot-start 以安装 Splunkd.service 单元文件：
   ```
   sudo $SPLUNK_HOME/bin/splunk enable boot-start -systemd-managed 1 -user <username>
   ```
3. 启动 splunkd。
   ```
   sudo $SPLUNK_HOME/bin/splunk start
   ```
4. 验证 splunkd 是否作为 systemd 服务运行。
   ```
   $SPLUNK_HOME/bin/splunk status
   ```

管理 systemd 下的群集

管理 systemd 下的群集索引器时：

- 您必须使用 sudo 命令以使用 splunk start|stop|restart 命令启动、停止和重新启动群集服务器节点或各对等节点。
- 您无需 sudo 命令即可使用 splunk rolling-restart cluster-peers 命令执行滚动重新启动，或者使用 splunk offline 命令使对等节点离线。

管理 systemd 下的搜索头群集时：

- 您必须使用 sudo 命令以使用 splunk start|stop|restart 命令启动、停止和重新启动群集成员。
- 您无需 sudo 命令即可使用 splunk rolling-restart shcluster-members 命令执行滚动重新启动，或者使用 splunk remove shcluster-members 命令移除群集成员。

Systemd 的升级注意事项

从 8.0.x 升级到 8.1

如果您将 Splunk Enterprise 版本 8.0.x 配置为作为 systemd 服务运行，则在升级到版本 8.1 时，Splunk Enterprise 会将以下属性添加到 Splunkd.service 单元文件中：

```
User
Group
ExecStartPost
```

当 Splunk Enterprise 添加这些单元文件属性时，它会创建一个新的单元文件来替换现有的单元文件 Splunkd.service。它还会重命名旧的单元文件 Splunkd.service_<timestamp>，只为备份目的而保存该文件。

从 7.3.x 或更低版本直接升级到 8.1 时，Splunk Enterprise 会将 Group 属性添加到单元文件中。

从 7.3.x 或更低版本升级到 8.0

如果您配置了 Splunk Enterprise 7.3.x 或更低版本作为 systemd 服务运行，在升级到版本 8.0.x 之后，首次启动

时，Splunk Enterprise 会修改现有的 systemd 配置，如下所示：

- 会将 ExecStartPost 和 User 属性从 Splunkd.service 单元文件中删除。
- 会检查 systemd 环境，识别 cgroup 路径，自动设置正确的 cgroup 目录的权限。

在安装 8.0.0 升级压缩包之后，您必须使用 sudo splunk start 首次启动 Splunk Enterprise。

升级到 8.0.0 之后，使用 systemctl start 首次启动 Splunk Enterprise 会失败。

有关升级 Splunk Enterprise 的详细信息，请参阅*《安装手册》*中的“如何升级 Splunk Enterprise”。

安装许可证

首次下载 Splunk 时，将要求您注册。

通过注册，您可以获得一份临时（60 天）的 Enterprise Trial 许可证，此许可证允许您每天新建的最大索引量为 500 MB。该许可证会包含在您的下载中。

Enterprise 许可证将启用以下功能：

- 多个用户帐户和访问控制。
- 分布式搜索和数据路由。
- 部署管理。

有关 Splunk 许可授权的更多信息，请参阅本手册中的“Splunk 许可授权如何运作”。

从哪里获得新许可证？

当您请求新的许可证时，您将通过来自 Splunk 的电子邮件收到许可证。您还可以从您的 splunk.com 中的“我的订单”页面获得新的许可证。

要通过 Splunk Web 来安装和更新您的许可证，请导航到**设置** > **许可授权**，并遵循这些说明。

更改默认值

在您开始针对您的环境来配置 Splunk Enterprise 之前，请查看下列默认设置。

设置或更改环境变量

您可以通过在操作系统上设置环境变量以更改 Splunk Enterprise 的启动方式。

在 *nix 上，使用 setenv 或 export 命令来设置特定变量。例如：

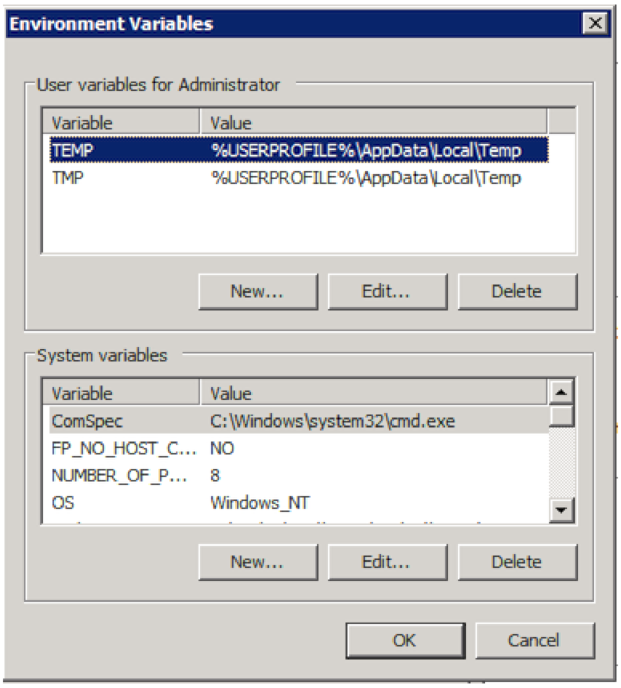
```
# export SPLUNK_HOME = /opt/splunk02/splunk
```

要永久设置环境，请编辑相应的 shell 初始化文件。为您希望 Splunk Enterprise 启动时使用的变量添加条目。

在 Windows 上，在命令提示符或 PowerShell 窗口中使用 set 环境变量：

```
C:\> set SPLUNK_HOME = "C:\Program Files\Splunk"
```

要永久地设置环境，使用“环境变量”窗口以添加条目到“用户变量”列表中。



User variables for Administrator

Variable	Value
TEMP	%USERPROFILE%\AppData\Local\Temp
TMP	%USERPROFILE%\AppData\Local\Temp

System variables

Variable	Value
ComSpec	C:\Windows\system32\cmd.exe
FP_NO_HOST_C...	NO
NUMBER_OF_P...	8
OS	Windows_NT

有几个可用的环境变量：

环境变量	用途
SPLUNK_HOME	Splunk Enterprise 安装目录的完全限定路径。
SPLUNK_DB	目录（包含 Splunk Enterprise 索引目录）的完全限定路径。
SPLUNK_BINDIP	Splunk Enterprise 应该在启动时绑定以接受连接的系统 IP 地址。当主机有超过一个活动的 IP 地址时非常有用。
SPLUNK_IGNORE_SELINUX	指示 Splunk Enterprise 在启用了 SELinux 的 Linux 主机上运行时尝试启动。默认情况下，当 Splunk Enterprise 检测到 SELinux 处于活跃状态时会立即退出。该变量使此检查无效，并能用于已配置 SELinux 的方案中以允许 Splunk Enterprise 运行。
SPLUNK_OS_USER	指示 Splunk Enterprise 假定您指定的用户凭据，无论您作为哪个用户启动它。例如，如果您在系统中指定用户 'splunk' 并作为 root 用户启动 Splunk Enterprise，它采用 'splunk' 用户的权限，而且任何由这些过程写入的文件都将属于 'splunk' 用户所有。
SPLUNK_SERVER_NAME	splunkd 服务（在 Windows 上）或过程（在 *nix 上）的名称。切勿设置该变量，除非您知道您在做什么。
SPLUNK_WEB_NAME	splunkweb 服务（在 Windows 上）或过程（在 *nix 上）的名称。切勿设置该变量，除非您知道您在做什么。

您也可以通过编辑 splunk-launch.conf（或者，在某些情况下编辑 web.conf）来为每个实例编辑这些环境变量。当您在主机上运行超过一个 Splunk 软件实例时，这会有所帮助。请参阅“splunk-launch.conf”。

更改网络端口

Splunk Enterprise 在安装时配置几个端口：

- **HTTP/HTTPS 端口**。该端口为 Splunk Web 提供套接字。默认端口为 8000。
- **Appserver 端口**。默认为 8065。
- **管理端口**。该端口用于与 splunkd 守护程序通信。Splunk Web 在此端口上与 splunkd 通信。此外，命令行界面和任何来自其他服务器的分布式连接也均采用此端口。默认端口为 8089。
- **KV 存储端口**。默认为 8191。

重要提示：在安装期间，您可能会将这些端口设置为默认值以外的其他值。

注意：对于从**转发器接收**数据的 Splunk 实例，必须配置另外一个端口，即接收器端口。它们使用此端口来侦听来自转发器的传入数据。在安装期间不进行此配置。默认接收器端口是 9997。有关更多信息，请参阅《转发数据》手册中的“启用接收器”。

使用 Splunk Web

要将这些端口从安装时的设置值更改为其他值：

1. 以管理员用户身份登录 Splunk Web。
2. 单击界面右上方的**设置**。
3. 在屏幕的“系统”部分中单击**服务器设置**链接。
4. 单击**常规设置**。
5. 更改**管理端口**或 **Web 端口**的值，并单击**保存**。

使用 Splunk CLI

要通过 Splunk CLI 来更改端口设置，请使用 CLI 命令 set。例如，该命令将 Splunk Web 端口设为 9000：

```
splunk set  web-port 9000
```

该命令将 splunkd 端口设为 9089：

```
splunk set  splunkd-port 9089
```

更改默认 Splunk 服务器名称

Splunk 服务器名称设置同时控制在 Splunk Web 中显示的名称和在分布式设置中发送给其他 Splunk 服务器的名称。

默认名称来自 DNS 或 Splunk 服务器主机的 IP 地址。

使用 Splunk Web

要更改 Splunk 服务器名称：

1. 以管理员用户身份登录 Splunk Web。
2. 单击界面右上方的**设置**。
3. 在屏幕的“系统”部分中单击**服务器设置**链接。
4. 单击**常规设置**。
5. 更改 **Splunk 服务器名称**的值，并单击**保存**。

使用 Splunk CLI

要通过 CLI 来更改服务器名称，使用 set servername 命令。例如，该命令将服务器名称设置为 *foo*：

```
splunk set servername foo
```

更改数据存储区位置

数据存储区是 Splunk 服务器用于存储所有索引数据的顶级目录。

注意：如果您更改此目录，服务器将不会迁移旧的数据存储区文件。相反，它会从新的位置重新开始。

要将您的数据迁移到另一个目录，请遵循“移动索引”中的说明。

使用 Splunk Web

要更改数据存储区位置：

1. 以管理员用户身份登录 Splunk Web。
2. 单击界面右上方的**设置**。
3. 在屏幕的“系统”部分中单击**系统设置**链接。
4. 单击**常规设置**。
5. 更改**索引路径**中的路径，并单击**保存**。
6. 使用 CLI 重新启动 Splunk Enterprise。导航到 $SPLUNK_HOME/bin/（*nix）或 %SPLUNK_HOME%\bin（Windows），然后运行以下命令：

```
splunk restart
```

重要提示：不要使用“设置”中的重新启动功能。这不会达到更改索引目录的预期效果。您*必须*从 CLI 重新启动。

使用 Splunk CLI

要通过 CLI 来更改数据存储区目录，使用 `set datastore-dir` 命令。例如，该命令将数据存储区目录设置为 `/var/splunk/`：

```
splunk set datastore-dir /var/splunk/
```

设置最小可用磁盘空间

最小可用磁盘空间设置会控制在 Splunk 软件停止建立索引之前，数据存储区位置中磁盘空间不足的最低情况。

如果可用磁盘空间增加，则 Splunk 软件会恢复建立索引的状态。

使用 Splunk Web

要设置最小可用磁盘空间：

1. 以管理员用户身份登录 Splunk Web。
2. 单击界面右上方的**设置**。
3. 在屏幕的“系统”部分中单击**系统设置**链接。
4. 单击**常规设置**。
5. 更改**可用磁盘空间低于此值时暂停建立索引**的值，并单击**保存**。

使用 Splunk CLI

要通过 CLI 更改最小可用空间值，使用 `set minfreemb` 命令。例如，该命令将最小可用空间设置为 2000 MB：

```
splunk set minfreemb 2000
```

设置默认的时间范围

“搜索和报表”应用中的临时搜索默认时间范围设置为**过去 24 小时**。管理员可以全局设置默认时间范围，涵盖所有应用。设置存储在 `[general_default]` 段落的 `SPLUNK_HOME/etc/apps/user-prefs/local/user-prefs.conf` 文件中。

此设置适用于 Splunk Apps 的所有搜索页面，而非仅“搜索和报表”应用。此设置适用于所有用户角色。

注意：此设置不适用于仪表板。

使用 Splunk Web

1. 以管理员用户身份登录 Splunk Web。

2. 单击**设置**。

3. 在“系统”部分，单击**服务器设置**。

4. 单击**搜索首选项**。

5. 在**默认搜索时间范围**下拉菜单中，选择要使用的时间并单击**保存**。

ui_prefs.conf 文件中的时间范围设置

对于特定应用程序或用户，您可能在 `ui-prefs.conf` 文件中已有时间范围设置。`ui-prefs.conf` 文件中的设置优先于使用 Splunk Web 对全局默认时间范围所做的所有设置。

但如果想要所有应用程序和用户都使用全局默认时间范围，可考虑删除 `ui-prefs.conf` 文件中的设置。

其他默认设置

在 Splunk Web 设置的“常规设置”屏幕上还有其他一些您可能想要更改的默认设置。请仔细浏览屏幕以查看这些选项。

另请参阅

关于配置文件

user-prefs.conf

ui-prefs.conf

将 Splunk 绑定到某个 IP

您可以强制 Splunk 将其端口绑定到某个特定的 IP 地址。默认情况下，Splunk 会绑定到 IP 地址 0.0.0.0，即所有可用的 IP 地址。

更改 Splunk 的绑定 IP 仅适用于 Splunk 守护程序 (splunkd)，其侦听端口为：

- TCP 端口 8089（默认）
- 针对以下功能配置的任何端口：
  - SplunkTCP 输入
  - TCP 或 UDP 输入

要将 Splunk Web 进程 (splunkweb) 绑定到特定 IP，请使用 web.conf 中的 server.socket_host 设置。

暂时

要暂时更改，请在启动 Splunk 之前设置环境变量 SPLUNK_BINDIP=<ipaddress>。

永久

如果您要对工作环境做出永久性更改，请修改 $SPLUNK_HOME/etc/splunk-launch.conf 以包括 SPLUNK_BINDIP 属性和 <ipaddress> 值。例如，要将 Splunk 端口绑定到 127.0.0.1（仅本地环回），splunk-launch.conf 应为：

```
# Modify the following line to suit the location of your Splunk install.
# If unset, Splunk will use the parent of the directory this configuration
# file was found in
#
# SPLUNK_HOME=/opt/splunk
SPLUNK_BINDIP=127.0.0.1
```

重要提示：web.conf 中 mgmtHostPort 属性默认值为 127.0.0.1:8089。因此，如果您将 SPLUNK_BINDIP 更改为 127.0.0.1 以外的任何值，则还必须更改 mgmtHostPort 以使用同一 IP 地址。例如，如果您在 splunk-launch.conf 中做出此改动：

```
SPLUNK_BINDIP=10.10.10.1
```

您还必须在 web.conf 中做出此改动（假设管理端口为 8089）：

```
mgmtHostPort=10.10.10.1:8089
```

请查看 web.conf 以了解有关 mgmtHostPort 属性的更多信息。

IPv6 注意事项

从版本 4.3 起，web.conf mgmtHostPort 设置已扩展为可以接受使用方括号括起的 IPv6 地址。因此，如果您将 splunkd 配置为仅在 IPv6 上侦听（通过本手册中的“配置 Splunk 以使用 IPv6”所描述的 server.conf 相关设置），则必须将其从 127.0.0.1:8089 更改为 [::1]:8089。

配置 Splunk Enterprise 以启用 IPv6 支持

若想启用 Splunk Enterprise 中的 IPv6 支持，您需要熟悉配置文件、Splunk 软件使用的端口以及数据输入配置。

IPv6 平台支持

Splunk Enterprise 中的 IPv6 支持取决于 Splunk 软件或通用转发器所安装的操作系统。有关受支持的操作系统平台的列表，请参见*《安装手册》*中的“受支持的操作系统”。

不支持的操作系统

IPv6 支持在 AIX 操作系统上不可用。

Splunk Enterprise 和 IPv6 功能

默认情况下，Splunk Enterprise 中的 IPv6 配置并未启用。在启用 IPv6 支持之前，请确定要借助 IPv6 地址访问的功能。

功能	详细信息
允许 Splunk Enterprise 软件通过 IPv6 侦听 Splunk 管理端口和 KVStore 端口。	请参阅“配置 Splunk Enterprise 以侦听 IPv6 网络”。
允许通过 IPv6 访问 Splunk Web。	请参阅“将 Splunk Web 配置为侦听 IPv6”。
为入站网络流量配置一个 IPv6 侦听器。	请参阅“为一个网络输入配置 IPv6 侦听器”。
使用 Splunk CLI 命令通过 IPv6 访问 Splunk Enterprise。	请参阅“使用 Splunk CLI 通过 IPv6 访问”。
配置 Splunk 转发器，以通过 IPv6 将数据发送到 Splunk Enterprise。	请参阅“通过 IPv6 转发数据”。
配置 Splunk Enterprise 分布式搜索以通过 IPv6 进行出站通信。	请参阅“针对 IPv6 的分布式搜索配置”。
使用单点登录配置 IPv6 支持。	请参阅“使用单点登录（SSO）实现 IPv6 支持”。
更改 Splunk Enterprise 优先处理 IPv4 和 IPv6 通信行为的方式。	请参阅“更改 IPv4 和 IPv6 通信的优先级”。

配置 Splunk Enterprise 以侦听 IPv6 网络

使用以下步骤将 Splunk Enterprise 配置为通过 IPv6 侦听 Splunk 管理端口和 KVStore 端口。

1. 使用 shell 提示符，转到文件夹 $SPLUNK_HOME/etc/system/local。
2. 编辑 server.conf 文件。
3. 在 [general] 段落中，添加一行：listenOnIPv6 = yes。
4. 保存更改。
5. 重新启动 Splunk Enterprise 实例。
6. 使用 netstat 或类似实用程序确认服务正在侦听正确的端口。
7. （可选）更改 IPv4 和 IPv6 通信的优先级。请参阅“更改 IPv4 和 IPv6 通信的优先级”。

在 Splunk 管理端口上启用 IPv6 后，先前在 inputs.conf 中定义的所有端口也会通过 IPv6 侦听。

将 Splunk Web 配置为侦听 IPv6

使用以下步骤将 Splunk Web 配置为接受通过 IPv6 进行的通信。

1. 使用 shell 提示符，转到文件夹 $SPLUNK_HOME/etc/system/local。
2. 编辑 web.conf 文件。
3. 在 [settings] 段落中，添加一行：listenOnIPv6 = yes。
4. 保存更改。
5. 重新启动 Splunk Enterprise 实例。
6. 使用 netstat 或类似实用程序确认服务正在侦听正确的端口。
7. 用网页浏览器连接到 Splunk Web。例如，http://[2620:70:8000:c205::129]:8000。

更改 IPv4 和 IPv6 通信的优先级

将 Splunk Enterprise 配置为支持 IPv6 后，服务会在 IPv4 和 IPv6 端口上侦听通信。若要提升端口的优先级或将端口限制为一个 IP 协议，请查看并更改 server.conf 中的 connectUsingIpVersion 设置。

如果将 Splunk Enterprise 和 Splunk Web 都配置为仅通过 IPv6 侦听，则必须将 web.conf 设置 mgmtHostPort 从 127.0.0.1:8089 更改为 [::1]:8089。

为一个网络输入配置 IPv6 侦听器

inputs.conf 段落 [tcp]，[udp]，[tcp-ssl]，[splunktcp]，[splunktcp-ssl] 都会接受 listenOnIPv6 设置。特定输入的 listenOnIPv6 设置的优先级高于 server.conf 中应用的配置。

要为单个输入启用 IPv6，请将设置 listenOnIPv6 = yes 添加到 inputs.conf 文件中定义的输入段落中。

1. 使用 shell 提示符，转到文件夹 $SPLUNK_HOME/bin。
2. 使用 btool 命令来识别要修改的 inputs.conf 的位置。例如，要查找 splunktcp 段落类型，可使用：
   ./splunk btool inputs list --debug | grep splunktcp
3. 转到您用 btool 命令找到的 inputs.conf 文件的位置。
4. 编辑 inputs.conf 文件。
5. 在输入段落中添加以下行：listenOnIPv6 = yes。

6. 保存更改。
7. 重新启动 Splunk Enterprise 实例。
8. 使用 netstat 或类似实用程序确认服务正在侦听正确的端口。

使用 Splunk CLI 通过 IPv6 访问

您可以使用 Splunk CLI 通过 IPv6 与 Splunk Enterprise 实例进行通信。必须将远程实例配置为在 Splunk 管理端口上侦听 IPv6。请参阅“配置 Splunk Enterprise 以侦听 IPv6 网络”。

要通过 CLI 访问 Splunk Enterprise，请使用 -uri 命令和 IPv6 地址，例如， ./splunk display app -uri "https://[2620:70:8000:c205::129]:8089"

您可以预先定义目标地址，在 shell 提示符中使用 $SPLUNK_URI 环境变量。请参阅“更改您的默认 URI 值”。有关更多 CLI 命令，请参阅“获取 CLI 相关帮助”。

如果您使用 IPv6 本地链路地址（视为以 fe80: 开头的 IPv6 地址），则某些 CLI 命令可能会失败。这种失败是由于 IPv6 本地链路地址在操作系统级别的实现而导致的，而不是因为 Splunk 软件引起的。

在 IPv6 上转发数据

要使转发器能够通过 IPv6 将数据发送给另一个 Splunk Enterprise 实例，请编辑 output.conf 并更新 server = 参数（用格式为 [host]:port 的 IPv6 地址更新），例如，server = [2002:4721:93f0::e956]:9997。outputs.conf 段落 [tcpout]，[tcpout-server]，[syslog] 接受 IPv6 地址。

针对 IPv6 的分布式搜索配置

distsearch.conf 中的 servers 设置可以包含采用标准 [host]:port 格式的 IPv6 地址。必须将远程实例配置为在 Splunk 管理端口上侦听 IPv6。请参阅“配置 Splunk Enterprise 以侦听 IPv6 网络”。

使用单点登录实现 IPv6 支持

如果要将 IPv6 与单点登录（SSO）搭配使用，则不要对 trustedIP 设置中引用的任何 IPv6 地址使用方括号表示法，如以下示例所示。在 web.conf 或 server.conf 中设置 trustedIP 时，就适用这种方括号表示法例外情况。

```
[settings]
mgmtHostPort = [::1]:8089
startwebserver = 1
listenOnIPv6=yes
trustedIP=2620:70:8000:c205:250:56ff:fe92:1c7,::1,2620:70:8000:c205::129
SSOMode = strict
remoteUser = X-Remote-User
tools.proxy.on = true
```

有关 SSO 的更多信息，请参阅*《确保 Splunk Enterprise 安全》*手册中的“配置单点登录”。

确保配置安全

如果您的配置尚不安全，是时候确保 Splunk 和您的数据安全了。采取适当的步骤以确保 Splunk 减少攻击面并缓解大多数漏洞的风险和影响。

安装后应采取的一些重要措施：

- 设置用户和角色。您可以使用 Splunks 本机验证配置用户和/或使用 LDAP 管理用户。请参阅“关于用户验证”
- 设置证书验证（SSL）。Splunk 随附了一系列默认证书，这些证书应被替换以确保验证安全。我们提供添加 SSL 加密和验证以及配置安全验证的指导原则和进一步说明。

《确保 Splunk Enterprise 安全》手册提供可确保 Splunk 安全的方法的更多相关信息。包括检查表以对您的配置进行强化。有关更多信息，请参阅“确保 Splunk Enterprise 安全”。

在 Splunk Enterprise 中共享数据

Splunk Inc. 会收集重要数据，这样我们可以提高您在 Splunk 软件中的投资价值。

我们可以使用此数据优化您的部署、提高功能优先级、改善您的体验、向您发送派遣通知以及开发高质量的产品功能。

版本 8.0.0 中的更改

Splunk 已更改其数据集合做法以及版本 8.0.0 中的默认设置。即使您选择退出之前发布的数据集合，版本 8.0.0 会将汇总使用数据、支持使用数据和许可证使用情况数据集合重置为新的默认设置，新的默认设置允许与 Splunk 共享此数据。当您升级到版本 8.0.0 或首次安装 Splunk Enterprise 8.0.0 时，第一个登录并且是 Splunk 管理员角色成员的用户将看到汇总新数据集合做法的弹出通知。此弹出通知在每个部署（新部署或升级部署）中出现一次，无论之前对部署应用“选择加入”还是“选择退出”设置。

Splunk 还会收集软件版本数据。如果您使用之前发布中的配置设置选择退出共享软件版本数据，升级时这些设置保持不变。

您可以随时选择退出数据共享。请参阅“如何选择退出”。

与 Splunk 共享数据的好处

当您和 Splunk Inc. 共享数据时，您会享受以下好处：

- **提高产品质量。**通过收集关于客户使用的拓扑决策和部署规模的准确信息，我们可以在内部测试中复制这些拓扑配置和规模，帮助我们提高您的产品体验。
- **及时通知已知故障、版本不兼容以及配置问题。**当您共享有关您部署的产品版本的数据时，我们可以提供准确的消息和支持帮助您解决故障、升级任务、版本兼容性问题和其他您可能遇到的配置问题。
- **相关功能改进。**我们会根据客户最常使用的功能来优先要开发和增强的功能。通过共享数据，您会影响这些数据驱动的决策，支持您在组织中使用的功能。

更多信息，请参阅“Splunk 如何使用其收集的数据”。

Splunk 收集哪些数据

下表汇总了启用数据集合后 Splunk 平台部署发送到 Splunk 的数据。按照链接查看此数据的示例。

数据类型	描述	示例
聚合使用情况数据	包括平台和应用程序中使用的功能、部署拓扑和性能指标。此数据与您的许可证 ID 不相关。	聚合使用情况数据示例 应用使用情况数据示例
支持使用情况数据	支持使用情况数据与聚合使用情况数据相同，但当数据到达 Splunk Inc. 时，许可证 ID 仍与您的数据相关。	聚合使用情况数据示例 应用使用情况数据示例
许可证使用情况数据	包括许可证 ID、活跃许可证组和子组、许可证堆叠配额总计、许可证池消耗总计、许可证堆叠类型，许可证池配额、许可证池消耗。	许可证使用情况数据示例
软件版本数据	包括 Splunk Enterprise 和每个已安装应用的版本，以及关于部署架构的相关元数据。	软件版本数据示例

Splunk 不会收集索引数据的内容。

某些云和混合产品会修改 Splunk 收集的一些数据类型。如出现这种情况，单独的协议或通知会说明数据集合和该产品的不同之处。

有关如何查看您的部署收集和发送到 Splunk 的数据，请参阅“查看您的部署发送的数据”。

发送到 Splunk 的数据示例

聚合使用情况、支持使用情况和许可证使用情况数据作为 JSON 数据包发送到 Splunk，除了特定数据集合组件的数据以外，该数据包还包括组件名称和部署 ID 等信息。部署的 deploymentID 是唯一的，且升级、卸载并在同一机器上重新安装 Splunk Enterprise 时不会更改。

这是完整 JSON 数据包的示例：

```
{
component: deployment.app
   data: { [-]
     enabled: true
     host: 878e7b21bf98580dbdb4ed3baf6c35d78aa5bc3d3c824eb8714a313c
     name: search
     version: 8.0.0
   }
   date: 2019-09-23
   deploymentID: d6d8e776-a8d3-5467-a03b-375577646cbb
   executionID: 2FC293C59049AC0D44B677D3A9D786
   timestamp: 1569294102
   transactionID: 4E1CFC7E-BE9F-355D-7DDE-D4F8D5E4852D
   version: 3
   visibility: anonymous,support
}
```

下表列出组件名称、描述和为该组件收集的数据示例。为易于使用，聚合使用情况数据和许可证数据的示例仅显示 JSON 对象的 data 字段。

聚合使用情况数据示例

下面的示例演示了在启用聚合使用情况数据共享时发送给 Splunk 的数据。

组件	描述	示例

app.RapidDiag.cliAccessMetrics	RapidDiag CLI 接口使用情况统计信息。	{ [-]
		 app: splunk_rapid_diag
		   component: app.RapidDiag.cliAccessMetrics
		   data: { [-]
		     action: 'run'
		     count: 2
		     mode: 'templates'
		     result: 0
		   }
		   deploymentID: 654b5421-eec2-5229-9fc6-5f065e00f9f5
		   eventID: 8BEB3B43-FC9E-47F3-8FFF-BA6E1D2CF425
		   executionID: C7212C53-51C7-4CB5-9316-1A3F6815594F
		   optInRequired: 3
		   timestamp: 1605611221
		   type: aggregate
		   visibility: [[-]
		     anonymous
		     support
		   ]

app.RapidDiag.uiAccessMetrics	RapidDiag UI 接口使用情况统计信息。	{ [-]
		 app: splunk_rapid_diag
		   component: app.RapidDiag.uiAccessMetrics
		   data: { [-]
		     count: 1
		     status: 200
		     uri_path: /en-GB/app/splunk_rapid_diag/data_collection
		     user: 8c6976e5b541
		   }
		   deploymentID: 654b5421-eec2-5229-9fc6-5f065e00f9f5
		   eventID: 4A5E61B6-C5C8-47F7-A6C9-AA4409E3AB5D
		   executionID: 07237CFC-6663-44D6-9F12-82D273A4AF06
		   optInRequired: 3
		   timestamp: 1605540721
		   type: aggregate
		   visibility: [[-]
		     anonymous
		     support
		   ]

app.RapidDiag.executionMetrics	RapidDiag 任务执行统计信息。	{ [-]
		 app: splunk_rapid_diag
		   component: app.RapidDiag.executionMetrics
		   data: { [-]
		     count: 10
		     metricName: dd1cd3d60a28
		     status: Success
		     type: collector
		   }
		   deploymentID: 654b5421-eec2-5229-9fc6-5f065e00f9f5
		   eventID: AA2EA083-F71C-473A-B19D-0C0993FCB520
		   executionID: B0FFB679-2745-4AA6-AF99-71999ED514BF
		   optInRequired: 3
		   timestamp: 1605611641
		   type: aggregate
		   visibility: [[-]
		     anonymous
		     support
		   ]
		   app: splunk_rapid_diag

		component: app.RapidDiag.executionMetrics data: { [-] count: 10 name: Slow search performance status: Success type: task } deploymentID: 654b5421-eec2-5229-9fc6-5f065e00f9f5 eventID: A6253B1F-7C26-4656-AE8F-848AC125783F executionID: B0FFB679-2745-4AA6-AF99-71999ED514BF optInRequired: 3 timestamp: 1605611641 type: aggregate visibility: [[-] anonymous support]
app.session.dashboard.load	仪表板特性，在仪表板加载时作为会话数据生成。	{ [-] app: search dashboard: { [-] autoRun: false hideAppBar: false hideChrome: false hideEdit: false hideExport: false hideFilters: false hideSplunkBar: false hideTitle: false isScheduled: false isVisible: true numCustomCss: 0 numCustomJs: 0 refresh: 0 submitButton: false theme: light version: 1.0 isDeprecatedXMLDashboard: true } elementTypeCounts: { [-] area: 1 column: 1 line: 1 singlevalue: 8 statistics: 10 } formInputTypeCounts: { [-] } layoutType: row-column-layout numElements: 21 numFormInputs: 0 numPanels: 21 numPrebuiltPanels: 0 numSearches: 21 page: network_insights searchTypeCounts: { [-] inline: 21 } }
app.session.dashboard.error	如果仪表板使用的 CustomJS 脚本中发生异步错误。	{ [-] data: { [-] app: search errorType: customJSError page: kieran123 }
app.session.globalBanner.error	从 GET/POST 请求到全局横幅端点的意外错误响应以及状态代码。	{ [-] app: $SPLUNK_PLATFORM page: manager/launcher/global_banner responseText: {"messages":[{"type":"ERROR","text":"Argume handler."}]} status: 400 }
app.session.globalBanner.interact	跟踪用户单击横幅链接的时间。	{ [-] action: link click app: $SPLUNK_PLATFORM page: manager/launcher/global_banner }
		{ [-]

app.session.metrics.interact	跟踪用户在图表上设置的过滤器类型。	accessor: METRICS action: SERIES_FILTER_ADD app: search chartType: line context: analysis customInfo: { [-] app: metrics-analysis commitHash: 5b0687f037c02ab76c3adc2391e80d84887d2b3e version: 2.28.0 } numCustomFilters: 1 numFilters: 1 numHostFilters: 0 numIndexFilters: 0 numIndexRefLines: 0 numMeasures: 1 numSeries: 1 numSourceTypeFilters: 0 numStaticRefLines: 0 numTimeRangeRefLines: 0 numTimeShiftRefLines: 0 page: analytics_workspace seriesHasSplit: false seriesId: 264aa232-2d23-47c0-8a0e-9ee641465d44 type: view/UPDATE_SERIES value: { [+] } viewId: v27f16248-701c-4fe2-b79e-27462e15861c }
app.session.metrics.process	与工作区图表发送的查询相关的、已取消标识的图表配置数据。	{{ [-] action: EXECUTE_QUERY app: search context: analysis customInfo: { [-] app: metrics-analysis commitHash: 50bd435d736fd97bb0a7125221bab4bce3b14975 splunkVersion: 8.1.0 version: 2.28.0 } elapsed: 232 page: analytics_workspace query: { [-] series: [[-] { [-] accessor: METRICS aggregation: avg axis: left filters: 1 refLines: [[-] { [-] aggregation: max includeValueInLabel: true timeRange: null timeShift: -1d type: indexDataAggregation }] span: 10s split: { [-] limit: 5 type: top } timeshift: -30m }] timeRange: { [-] earliest: 1596751969.139 latest: 1596755569.139 } } requestId: 00961132-3d15-45a2-9d69-0624b16a9009 status: completed viewId: v69289f5f-c33c-4161-9281-53724a9aa768 }
app.session.page.interact	跟踪用户与搜索、报表、告警、数据模型、标记、查找和搜索宏的交互。	{ [-] action: Edit Permissions - Save app: search custom: { [+] } page: dataset

		}
app.session.page.load	跟踪加载和是否支持 Web 服务，在页面加载时作为会话数据生成。	{ [-] allowWebService: true app: $SPLUNK_PLATFORM page: manager/search/adddata }
app.session.pageview	页面查看会话数据，用户访问新页面时生成。	{ [-] app: launcher page: home }
app.session.pivot.interact	数据透视表的更改，用户更改数据透视表时作为会话数据生成。	{ [-] app: search context: pivot eventAction: change eventCategory: PivotEditorReportContent eventLabel: Pivot - Report Content eventValue: { [-] transient: true } numAggregations: 1 numColumnSplits: 0 numCustomFilters: 0 numRowSplits: 1 page: pivot reportProps: { [-] display.general.type: visualizations display.statistics.show: 1 display.visualizations.charting.chart: area display.visualizations.charting.chart.rangeValues: [0,3 display.visualizations.charting.gaugeColors: ["0x53a051 display.visualizations.charting.legend.placement: none display.visualizations.show: 1 display.visualizations.singlevalue.rangeColors: ["0x53a051","0x0877a6","0xf8be34","0xf1813f","0xdc4e41"] display.visualizations.singlevalue.trendInterval: auto display.visualizations.type: charting earliest: -24h@h latest: now windowedEarliest: 2019-09-23T03:00:00.000+00:00 windowedLatest: 2019-09-24T03:58:52.000+00:00 } }
app.session.pivot.load	数据透视表特性，在数据透视表加载时作为会话数据生成。	{ [-] app: search context: pivot eventAction: load eventCategory: PivotEditor eventLabel: Pivot - Page numAggregations: 1 numColumnSplits: 0 numCustomFilters: 0 numRowSplits: 1 page: pivot reportProps: { [-] display.general.type: visualizations display.statistics.show: 1 display.visualizations.charting.chart: area display.visualizations.charting.chart.rangeValues: [0,3 display.visualizations.charting.gaugeColors: ["0x53a051 display.visualizations.charting.legend.placement: none display.visualizations.show: 1 display.visualizations.singlevalue.rangeColors: ["0x53a051","0x0877a6","0xf8be34","0xf1813f","0xdc4e41"] display.visualizations.singlevalue.trendInterval: auto display.visualizations.type: charting earliest: -24h@h latest: now windowedEarliest: 2019-09-23T03:00:00.000+00:00 windowedLatest: 2019-09-24T03:58:52.000+00:00 } }
app.session.roles.srchFilter	Splunk Web 的授权/角色页面上的	{ [-] app: $SPLUNK_PLATFORM context: authorization/roles eventAction: CreateEditRole eventCategory: SrchFilterInRoles

	事件操作	eventLabel: Search Filter in role - admin eventValue: * page: manager/launcher/authorization/roles }
app.session.rum.mark	启用后，跟踪全局横幅设置页面和视图本身的第一个有意义的绘制的性能。	{{ [-] app: $SPLUNK_PLATFORM hero: Global Banner Settings - First meaningful paint page: manager/launcher/global_banner sourceLocation: Global Banner Settings - First meaningful timeSinceOrigin: 6917.774999994435 transactionId: 2da6cc30-6880-11ea-a7ac-5ff240bf600d }
app.session.rum.measure	启用后，跟踪全局横幅设置页面和视图本身的第一个有意义的绘制的性能。	{ [-] app: $SPLUNK_PLATFORM duration: 6917.774999994435 fromSourceDurations: { [+] } fromSourceLocation: origin hero: Global Banner Settings - First meaningful paint page: manager/launcher/global_banner timeSinceOrigin: 6917.774999994435 toSourceLocation: Global Banner Settings - First meaningf transactionId: 2da6cc30-6880-11ea-a7ac-5ff240bf600d }
app.session.search.interact	搜索页面交互，每个用户和搜索页面交互时生成的会话数据。	{ [-] app: search context: search eventAction: submit eventCategory: CreateReportDialog eventLabel: Search App - Actions eventValue: success page: search reportProps: { [-] dispatch.sample_ratio: 1 display.events.table.sortDirection: asc display.general.type: statistics display.page.search.mode: smart display.prefs.events.offset: 0 display.prefs.statistics.offset: 0 display.statistics.format.0: display.statistics.format.0.colorPalette: display.statistics.format.0.colorPalette.colors: display.statistics.format.0.field: display.statistics.format.0.scale: display.statistics.format.0.scale.thresholds: display.statistics.sortColumn: Number of Users display.statistics.sortDirection: asc display.visualizations.charting.chart: bar earliest: -24h@h latest: now workload_pool: } }
app.session.session_start	用户第一次验证时生成的会话数据。包含 deploymentID（部署标识符）、eventID（此特定事件的标识符）、experienceID（此会话的标识符）、userID（哈希用户名、data.guid（实例服务页面的 GUID）。	{ [-] app: launcher browser: Chrome browserVersion: 68.0.3440.106 device: Linux x86_64 guid: 0C4C7528-375A-4DA5-ABF8-09189051BB51 locale: en-US os: Linux osVersion: not available page: home splunkVersion: 8.0.0 }
app.session.tableUI.interact	跟踪“表格用户界面”页面中的交互。	{ [-] action: create_table_view app: search location: datasets listing page page: datasets }

deployment.app	安装在搜索头和节点中的应用。	{ [-] enabled: true host: 878e7b21bf98580dbdb4ed3baf6c35d78aa5bc3d3c824eb8714 name: search version: 8.0.0 }
deployment.clustering.indexer	索引器的主机名、索引器群集的复制因子和搜索因子。	{ [-] enabled: false host: 06d3392e0644587c3c3131833c81bfa6a7be78361e35e2ba8ed timezone: -0700 }
deployment.clustering.member	索引器群集成员状态。	{ [-] master: 1b83dc9e131f02b53329dfc1d3700aea92dd8223a22325d27 member: { [-] guid: 14B1E1C3-ABD1-4D02-88D5-3A6964EF8376 host: 942796f349f59b3ae64b47e507299b64b9a638fc9fc7a2580 status: Up } site: default }
deployment.clustering.searchhead	索引器群集和搜索头连接状态。	{ [-] master: 1b83dc9e131f02b53329dfc1d3700aea92dd8223a22325d27 searchhead: { [-] guid: 141D5E4A-3C5C-4051-B2DB-E679027A0D57 host: f7724a2690f17f0fe3ea97418c92fffde62a890b517261377 status: Connected } site: default }
deployment.distsearch.peer	分布式搜索节点状态。	{ [-] host: 33b1957bfe1d0f7d3aac34e8655cf49f74375fb5043cb756f9a peer: { [-] guid: 676F6738-BA57-44EC-94F0-A6821739DF8C host: 76e4ed3636a6f4dc9737d119fde51e0007713c7f87af7acf0 status: Up } }
deployment.forwarders	转发器架构：主机数量、转发器实例数量、OS/版本、CPU 架构、Splunk Enterprise 版本、转发量分布	{ [-] architecture: x86_64 bytes: { [-] avg: 632367800 max: 689339847 min: 602231091 p10: 602891365 p20: 603551640 p30: 604211914 p40: 604872189 p50: 605532463 p60: 622293940 p70: 639055417 p80: 655816893 p90: 672578370 } hosts: 3 instances: 3 os: Linux splunkVersion: 8.0.0 type: full }
		{ [-] app: search buckets: { [-] cold: { [-] count: 0 events: 0 sizeGB: 0 } coldCapacityGB: unlimited homeCapacityGB: unlimited homeEventCount: 871 hot: { [-] count: 0 max: 3 sizeGB: 0 } thawed: { [-]

deployment.index	索引类型和配置。包括一种指示器，说明指标索引是否具有亚秒级的搜索功能。	count: 0 events: 0 sizeGB: 0 } warm: { [-] count: 6 sizeGB: 0 } } host: 6aac2d36b0f11492299b161a6c5a4f79451708e195b98a5dbaa name: uba_alarms timeResolution: sec total: { [-] buckets: 6 currentDBSizeGB: 0 events: 871 maxDataSizeGB: 500 maxTime: 1568987048 minTime: 1567603567 rawSizeGB: 0 } type: event }
deployment.licensing.slave	许可证从服务器。	{ [-] master: 33b1957bfe1d0f7d3aac34e8655cf49f74375fb5043cb756f slave: { [-] guid: 1E7D1EA4-9E76-410B-825F-36CDA037F377 host: 33b1957bfe1d0f7d3aac34e8655cf49f74375fb5043cb756f pool: auto_generated_pool_enterprise } }
deployment.node	GUID、主机、虚拟和物理内核数、CPU 架构、内存大小、存储（分区）、容量、OS/版本、Splunk Enterprise 版本	{ [-] cpu: { [+] } guid: 991BECEF-7F25-442D-B388-FF5A5AED16C3 host: cbefb1beb9ca9908007643320dec0ab0b345b51fd2f85ab7eec memory: { [-] capacity: 32655630402 utilization: { [-] avg: 0.67 max: 0.74 min: 0.5 p10: 0.6 p20: 0.62 p30: 0.64 p40: 0.66 p50: 0.67 p60: 0.69 p70: 0.7 p80: 0.71 p90: 0.72 } } os: Linux osExt: Linux osVersion: 4.15.0-1031-aws partitions: [[-] { [-] capacity: 208111882207 fileSystem: ext4 utilization: 0.91 }] splunkVersion: 8.0.0 }
deployment.shclustering.member	搜索群集成员状态。	{ [-] captain: 208999515adad3c46696443afe61049c8f8bfe56b6330fea member: { [-] guid: 45B3EA5E-4868-4243-9BEA-109C2F76F02A host: 258a814c13167915bedd945acd0f5e16c058a8b1bab897220 status: Up } site: default }
		{ [-] instance_type: Single queries: [[-] { [-]

```
  component: deployment.app
  isFailed: 0
  resultCount: 145
  runDuration: 0.843
  scanCount: 0
  searchProviders: 3
  sid: 1569294993.84
}
{ [-]
  component: deployment.app
  isFailed: 0
  resultCount: 145
  runDuration: 1.079
  scanCount: 0
  searchProviders: 3
  sid: 1569294995.85
}
{ [-]
  component: deployment.distsearch.peer
  isFailed: 0
  resultCount: 2
  runDuration: 0.211
  scanCount: 0
  searchProviders: 3
  sid: 1569294996.86
}
{ [-]
  component: deployment.licensing.slave
  isFailed: 0
  resultCount: 1
  runDuration: 0.781
  scanCount: 0
  searchProviders: 3
  sid: 1569294997.87
}
{ [-]
  component: usage.search.report_acceleration
  isFailed: 0
  resultCount: 1
  runDuration: 0.387
  scanCount: 0
  searchProviders: 3
  sid: 1569294998.88
}
{ [-]
  component: usage.search.report_acceleration
  isFailed: 0
  resultCount: 1
  runDuration: 0.36
  scanCount: 0
  searchProviders: 3
  sid: 1569294998.89
}
{ [-]
  component: usage.search.searchTelemetry
  isFailed: 0
  resultCount: 1
  runDuration: 1.2650000000000001
  scanCount: 14
  searchProviders: 3
  sid: 1569294999.90
}
{ [-]
  component: usage.lookups.lookupDefinitions
  isFailed: 0
  resultCount: 1
  runDuration: 0.28700000000000003
  scanCount: 0
  searchProviders: 1
  sid: 1569295000.91
}
{ [-]
  component: performance.bundleReplication
  isFailed: 0
  resultCount: 3
  runDuration: 1.238
  scanCount: 2784
  searchProviders: 3
  sid: 1569295001.92
}
{ [-]
  component: performance.indexing
  isFailed: 0
```

instrumentation.performance	检测查询性能。	resultCount: 8 runDuration: 6.098 scanCount: 35273 searchProviders: 3 sid: 1569295010.93 } { [-] component: performance.search isFailed: 0 resultCount: 3 runDuration: 21.253 scanCount: 213234 searchProviders: 3 sid: 1569295016.94 } { [-] component: usage.search.concurrent isFailed: 0 resultCount: 8 runDuration: 8.671 scanCount: 167724 searchProviders: 3 sid: 1569295038.96 } { [-] component: usage.users.active isFailed: 0 resultCount: 3 runDuration: 9.34 scanCount: 56960 searchProviders: 3 sid: 1569295047.97 } { [-] component: deployment.node isFailed: 0 resultCount: 15 runDuration: 9.965 scanCount: 1166 searchProviders: 3 sid: 1569295056.98 } { [-] component: deployment.index isFailed: 0 resultCount: 113 runDuration: 14.809000000000001 scanCount: 0 searchProviders: 3 sid: 1569295067.99 } { [-] component: usage.search.type isFailed: 0 resultCount: 3 runDuration: 17.365000000000002 scanCount: 167724 searchProviders: 3 sid: 1569295082.100 } { [-] component: licensing.stack isFailed: 0 resultCount: 5 runDuration: 1.772 scanCount: 10 searchProviders: 3 sid: 1569295100.101 } { [-] component: deployment.forwarders isFailed: 0 resultCount: 28 runDuration: 8.309000000000001 scanCount: 268106 searchProviders: 3 sid: 1569295102.102 } { [-] component: usage.indexing.sourcetype isFailed: 0 resultCount: 1373

		runDuration: 45.673 scanCount: 735929 searchProviders: 3 sid: 1569295111.103 } { [-] component: deployment.clustering.indexer isFailed: 0 resultCount: 1 runDuration: 3.157 scanCount: 0 searchProviders: 1 sid: 1569295160.104 } { [-] component: usage.app.page isFailed: 0 resultCount: 9 runDuration: 0.795 scanCount: 65 searchProviders: 3 sid: 1569295163.105 }] roles: { [-] cluster_master: false in_cluster: false indexer: true kv_store: true lead_node: true license_master: true search_head: true } timezone: +0000 }

licensing.stack	许可证配额及消耗。	{
		consumption: 127025471
		guid: C131C257-98FE-4E8B-9595-CB4D93246F98
		host: Splunk
		name: enterprise
		pools: [
		{
		consumption: 127025471
		quota: 6442450944
		}
		]
		product: enterprise
		quota: 6442450944
		subgroup: Production
		type: enterprise
		}

performance.bundleReplicationCycle	软件包复制周期指标。	{ [-] avgBundleBytes: 0 avgPeerCount: 1 avgPeerSuccessCount: 1 avgReplicationTimeMsec: 1 cycleCount: 144 replicationPolicy: classic }
performance.indexing	索引性能：核心利用率、存储利用率、内存使用、索引吞吐量、搜索延迟。	{ [-] host: 3c4681a5be1881de8554c8bab7be78e8d151557ef571e6a72bd thruput: { [-] avg: 1903 max: 7854 min: 4 p10: 1419 p20: 1433 p30: 1452 p40: 1806 p50: 1860 p60: 1865 p70: 1878 p80: 2046 p90: 2326 total: 7138077 } }
		{ [-]

performance.search	搜索性能：核心利用率、存储利用率、内存使用、索引吞吐量、搜索延迟。	buckets: { [-]
		      avg: 1.9
		      max: 27
		      min: 0
		      p10: 0
		      p20: 0
		      p30: 0
		      p40: 0
		      p50: 0
		      p60: 0.88
		      p70: 2
		      p80: 6
		      p90: 6
		    }
		    dayRange: { [-]
		      avg: 876.81
		      max: 18162.29
		      min: 0
		      p10: 0
		      p20: 0
		      p30: 0
		      p40: 0
		      p50: 0
		      p60: 0.01
		      p70: 0.01
		      p80: 0.01
		      p90: 0.03
		    }
		    latency: { [-]
		      avg: 2.31
		      max: 19744.69
		      min: 0.01
		      p10: 0.02
		      p20: 0.02
		      p30: 0.09
		      p40: 0.47
		      p50: 1.6
		      p60: 1.85
		      p70: 2.05
		      p80: 2.23
		      p90: 2.64
		    }
		    scanCount: { [-]
		      avg: 344030.32
		      max: 38060408
		      min: 0
		      p10: 0
		      p20: 0
		      p30: 0
		      p40: 0
		      p50: 1.59
		      p60: 90.32
		      p70: 1156.18
		      p80: 25454.25
		      p90: 308440.56
		    }
		    searches: 30576
		    slices: { [-]
		      avg: 5034.33
		      max: 219740
		      min: 0
		      p10: 0
		      p20: 0
		      p30: 0
		      p40: 0
		      p50: 0
		      p60: 0
		      p70: 2246.06
		      p80: 11491.43
		      p90: 14170.42
		    }
		  }

		{ [-]
		 app: splunk_instrumentation
		   component: usage.admissionRules.report
		   data: { [-]
		     admissionRulesEnabled: 1
		     guid: 13E5506A-4C0F-4BB9-B468-B5F977A00FDE
		     host: e521fc4eebd5e93b2cadcced3e03f699c86f2b5c
		     rules: { [-]
		       allindex_alltime: { [-]
		         predicate: index=df58248c414f342c81e056b40bee12d17a08

usage.admissionRules.report	准入规则：状态，已启用规则的列表以及针对过滤出的搜索触发的规则。	} audit: { [-] predicate: index=cb4ed408dd9f3497da0bcbece65f84742392 app=3559d7accf00360971961ca18989adc0614089c0 AND role=d033e22a } internal: { [-] predicate: index=f1b1f1f40216ee2e2b5a526eec43c8f71ccc user=d033e22ae348aeb5660fc2140aec35850c4da997 AND search_time_ } totalCount: 3 } rulesTriggered: [[-] { [-] filteredSearchesCount: 1 searchFilterRule: allindex_alltime } { [-] filteredSearchesCount: 3 searchFilterRule: audit } { [-] filteredSearchesCount: 1 searchFilterRule: internal }] serverRoles: indexer, license_master } deploymentID: dc739253-34a9-5b44-afd8-ea73e9066dc5 eventID: DE0063AE-31F5-42FA-AE92-0F62913EF42E executionID: 8B45C62A-0D0B-4689-B1BD-F29BFA3D9255 optInRequired: 3 timestamp: 1587004320 type: aggregate visibility: [[-] anonymous support] }
usage.app.page	应用名称、页面名称、局域设置、用户数量、页面加载数量、生成的会话数据。	{ [-] app: search locale: en-US occurrences: 1 page: users: 1 }
usage.authMethod.config	验证方法：经过哈希处理的主机和 GUID、身份验证方法（Splunk、LDAP 或 SAML）、MFA 类型（none、Duo 或 RSA）。	{ [-] authentication method: Splunk guid: C099BFA3-E5B5-4AB1-AB64-471703C54388 host: 8cd44b23a1bd3ae283f21a7d9c5434163181efc8 mfa type: none }

usage.bucketmerge.standalone	使用数据桶合并命令、数据桶列表命令和带 --dryrun 选项的数据桶合并命令	{ [-]
		component: usage.bucketmerge.standalone
		data: {
		command: merge
		newBucketsCount: 5
		oldBucketsCount: 50
		durationSec: 7.5
		}
		date: 2018-10-26
		deploymentID: 99b6ffd8-2e80-5e3b-905c-8c6f6fd743a0
		executionID: F0AE995E8653D768A360E73BE3F544
		timestamp: 1540570045
		transactionID: 89F7329E-86AD-BBFD-034F-209CB8A06F05
		version: 3
		visibility: anonymous,support
		}

usage.durableSearch	持久搜索功能的用户数量、持久搜索的使用方式（用于计划的搜索：？用于摘要索引？）以	{ [-] durableBackfillType: auto durableLagTime: 60 durableMaxBackfillIntervals: 100 durableTrackTimeType: _indextime enableSummaryIndex: Yes name: 8a4d0e8816a25ed813c5f40dbfc34d0bd46d9c49 } date: 2020-06-02

<table>
<tr>
<td></td>
<td>及常用的持久搜索设置值。</td>
<td><pre>
    deploymentID: 87402ea1-6505-59d5-b04a-c12dcf7b0a06
    executionID: ED6EF443C5FC863A9AABA6B89A1839
    timestamp: 1591117572
    transactionID: 0B2234FD-2D78-7939-75B1-B5BECABD5FD3
    version: 4
    visibility: anonymous,support
</pre></td>
</tr>
<tr>
<td>usage.healthMonitor.currentState</td>
<td>分布式运行状况报表：启用状态、点击次数、节点状态（节点路径、当前颜色、最近 24 小时内最差的颜色）、Splunk 版本。</td>
<td><pre>
{ [-]
       enabled: 1
     }
     healthReportClicks: 10
     nodeStatus: [[-]
       { [-]
         color: green
         nodePath: splunkd
         worstColorInLast24Hours: green
       }
       { [-]
         color: green
         nodePath: splunkd.file_monitor_input
         worstColorInLast24Hours: green
       }
       { [-]
         color: green
         nodePath: splunkd.file_monitor_input.batchreader-0
         worstColorInLast24Hours: green
       }
       { [-]
         color: green
         nodePath: splunkd.file_monitor_input.tailreader-0
         worstColorInLast24Hours: green
       }
       { [-]
         color: green
         nodePath: splunkd.index_processor
         worstColorInLast24Hours: green
       }
       { [+]
       }
       { [+]
       }
       { [+]
       }
       { [+]
       }
       { [+]
       }
       { [+]
       }
       { [+]
       }
     ]
     splunkVersion: 8.1.0
   }
</pre></td>
</tr>
<tr>
<td></td>
<td></td>
<td><pre>
{ [-]
     alert: { [-]
       alert_action:email: { [-]
         action/ action.to/ action.url/ action.integration_url
         disabled: 0
       }
       alert_action:webhook: { [-]
         action/ action.to/ action.url/ action.integration_url
         disabled: 0
       }
       health_reporter: { [-]
         action/ action.to/ action.url/ action.integration_url
         disabled: 0
       }
     }
     feature:batchreader: { [-]
       enabled: 1
       threshold: { [-]
         indicator:data_out_rate:red: 2
         indicator:data_out_rate:yellow: 1
       }
     }
     feature:buckets: { [-]
       enabled: 1
       threshold: { [-]
         indicator:buckets_created_last_60m:red: 60
         indicator:buckets_created_last_60m:yellow: 40
</pre></td>
</tr>
</table>

usage.healthMonitor.report	运行状况报表管理器：告警操作和启用状态，功能阈值和启用状态。	indicator:percent_small_buckets_created_last_24h:red:
		    indicator:percent_small_buckets_created_last_24h:yell
		  }
		}
		feature:cluster_bundles: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:cluster_bundles:yellow: 1
		  }
		}
		feature:data_durability: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:cluster_replication_factor:red: 1
		    indicator:cluster_search_factor:red: 1
		  }
		}
		feature:data_searchable: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:data_searchable:red: 1
		  }
		}
		feature:ddaa_archived_buckets: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:archived_buckets_failed_last_24h:red: 80
		    indicator:archived_buckets_failed_last_24h:yellow: 40
		  }
		}
		feature:disk_space: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:disk_space_remaining_multiple_minfreespace:
		    indicator:disk_space_remaining_multiple_minfreespace:
		  }
		}
		feature:indexers: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:detention:red: 1
		    indicator:detention:yellow: 1
		    indicator:missing_peers:red: 1
		    indicator:missing_peers:yellow: 1
		  }
		}
		feature:indexing_ready: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:indexing_ready:red: 1
		  }
		}
		feature:master_connectivity: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:master_connectivity:red: 1
		  }
		}
		feature:replication_failures: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:replication_failures:red: 10
		    indicator:replication_failures:yellow: 5
		  }
		}
		feature:s2s_autolb: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:s2s_connections:red: 70
		    indicator:s2s_connections:yellow: 20
		  }
		}
		feature:search_lag: { [-]
		  enabled: 1
		  threshold: { [-]
		    indicator:count_extremely_lagged_searches_last_hour:r
		    indicator:count_extremely_lagged_searches_last_hour:y
		    indicator:percent_searches_lagged_high_priority_last_
		    indicator:percent_searches_lagged_non_high_priority_l
		  }
		}
		feature:searches_delayed: { [-]
		  enabled: 1

```
  threshold: { [-]
    indicator:percent_searches_delayed_high_priority_last_
    indicator:percent_searches_delayed_high_priority_last_
    indicator:percent_searches_delayed_non_high_priority_
    indicator:percent_searches_delayed_non_high_priority_
  }
}
feature:searches_skipped: { [-]
  enabled: 1
  threshold: { [-]
    indicator:percent_searches_skipped_high_priority_last_
    indicator:percent_searches_skipped_high_priority_last_
    indicator:percent_searches_skipped_non_high_priority_
    indicator:percent_searches_skipped_non_high_priority_
  }
}
feature:searchheadconnectivity: { [-]
  enabled: 1
  threshold: { [-]
    indicator:master_connectivity:red: 1
    indicator:master_version_compatibility:yellow: 1
  }
}
feature:shc_captain_common_baseline: { [-]
  enabled: 1
  threshold: { [-]
    indicator:common_baseline:red: 1
  }
}
feature:shc_captain_connection: { [-]
  enabled: 1
  threshold: { [-]
    indicator:captain_connection:red: 1
    indicator:captain_existence:red: 1
  }
}
feature:shc_captain_election_overview: { [-]
  enabled: 1
  threshold: { [-]
    indicator:dynamic_captain_quorum:yellow: 1
  }
}
feature:shc_members_overview: { [-]
  enabled: 1
  threshold: { [-]
    indicator:detention:red: 1
    indicator:detention:yellow: 1
    indicator:replication_factor:yellow: 1
    indicator:status:red: 1
    indicator:status:yellow: 1
  }
}
feature:shc_snapshot_creation: { [-]
  enabled: 1
  threshold: { [-]
    indicator:snapshot_creation:red: 20
    indicator:snapshot_creation:yellow: 10
  }
}
feature:slave_state: { [-]
  enabled: 1
  threshold: { [-]
    indicator:slave_state:red: 1
    indicator:slave_state:yellow: 1
  }
}
feature:slave_version: { [-]
  enabled: 1
  threshold: { [-]
    indicator:slave_version:red: 1
  }
}
feature:splunkoptimize_processes: { [-]
  enabled: 1
  threshold: { [-]
    indicator:concurrent_optimize_processes_percent:yello
  }
}
feature:tailreader: { [-]
  enabled: 1
  threshold: { [-]
    indicator:data_out_rate:red: 2
```

		indicator:data_out_rate:yellow: 1 } } feature:wlm_configuration_check: { [-] enabled: 1 threshold: { [-] indicator:configuration_check:red: 0 } } feature:wlm_system_check: { [-] enabled: 1 threshold: { [-] indicator:system_check:red: 0 } } }
usage.indexing.sourcetype	索引量、事件数量、主机数量、来源类型名称。	{ [-] bytes: 90962 events: 354 hosts: 1 name: splunk_telemetry }
usage.kvstore	KV 存储相关的指标和性能数据。	{ [-] usage.flushAverageMs: 5.3538461538461535 usage.instanceType: primary usage.memRamMb: 0 usage.memVirtualMb: 0 usage.oplogEndTime: 1569301264 usage.oplogStartTime: 1569222045 usage.oplogTimeRange: 79219 usage.readLatencyToUpTime: 0.000153653421585191 usage.readLatencyUsPerOp: 0.02158053280617528 usage.storageEngine: mmapv1 usage.upTime: 3956 usage.version: 3.6.12-splunk usage.writeLatencyToUpTime: 0.000153653421585191 usage.writeLatencyUsPerOp: 0.00048009036995199094 }
usage.lookups.lookupDefinitions	查找定义元数据，带经过哈希处理的查找名称。	{ [-] lookups: [[-] { [-] _timediff: is_temporal: 0 name: 96117ed21e74f16d452027ed8e16c5d32fddd229 sharing: system size: type: external } { [-] _timediff: is_temporal: 0 name: 256d0fae9448acc55cd2e5cbabe7dbec576158c2 sharing: global size: 18053 type: file } { [-] _timediff: is_temporal: 0 name: 88767984d9dc6308309ffde5dc3591fa3865e7f2 sharing: global size: 832 type: file } { [-] _timediff: is_temporal: 0 name: 1b0131dbc851786586e269a2ba8b2f08bbd6834f sharing: global size: type: geo } { [-] _timediff: is_temporal: 0 name: 6d47b91d0c0753e9332ec2c0f8c956151c9b1e16 sharing: global size: type: geo

		}] }
usage.passwordPolicy.config	密码策略管理：经过哈希处理的主机和 GUID、属性配置。	{ [-] constant login time: 0.000 days until password expires: 90 enable lockout users: false enable password expiration: false enable password history: false enable verbose login fail message: true expiration alert in days: 15 failed login attempts: 5 force existing users to change weak passwords: false guid: 32BEE8DE-E64D-4B02-B2FE-4F13F18A0CAE host: b8758da2f94fd58e648bce573fa3d9dc5797566d lockout duration in minutes: 30 lockout threshold in minutes: 5 minimum number of characters: 1 minimum number of digits: 0 minimum number of lowercase letters: 0 minimum number of special characters: 0 minimum number of uppercase letters: 0 password history count: 24 }
usage.python	应用中 Python 版本的默认设置、名称经过哈希处理的脚本的路径、脚本中使用的 Python 版本。	{ [-] pythonDefault: python2 scriptPath: /usr/local/bamboo/splunk-install/current/etc/ /D7A80DE23601F645B8A06995DF910A3D08AB9EAA scriptPythonVersion: python2 }
usage.rest	在 Splunk Enterprise SDK 发出的 REST 请求中使用端点、HTTP 方法、状态代码和用户代理。收集的数据包括目标功能的部分端点 URL。URL 中所有可识别用户的数据和资源名称都将被丢弃。	{ [-] endpointUri: search/jobs method: POST status: 200 userAgent: splunk-sdk-python/1.6.3 }
usage.savedSearches.alert	已保存的搜索告警功能的使用：触发条件和模式、告警操作、告警抑制、时间计划等等。	{ [-] actionList: script alertConditionType: number of hosts alertSeverity: 3 alertSuppress: No alertSuppressGroup: 58e7079db82d48abfcdda002ce09d3f371c8b alertTrackable: Yes cronSchedule: 0 0 * * * name: 831ee1f249cf286c2065e7ba7e38b0b5228c738d triggerMode: Once }
usage.search.concurrent	并发搜索的分布。	{ [-] host: 3c4681a5be1881de8554c8bab7be78e8d151557ef571e6a72bd searches: { [-] avg: 2 max: 2 min: 1 p10: 1 p20: 1 p30: 1 p40: 1 p50: 2 p60: 2 p70: 2 p80: 2 p90: 2 } }
usage.search.report_acceleration	报表加速指标。	{ [-] existing_report_accelerations: 0 }

usage.search.searchTelemetry	在一天时间内在系统上运行的所有搜索的命令和相应的计数列表。	{ [-]
		     commands: [[-]
		       { [-]
		         count: 1
		         name: addinfo
		       }
		       { [-]
		         count: 5
		         name: eval
		       }
		       { [-]
		         count: 6
		         name: external_command
		       }
		       { [-]
		         count: 9
		         name: fields
		       }
		       { [-]
		         count: 1
		         name: inputlookup
		       }
		       { [-]
		         count: 1
		         name: join
		       }
		       { [-]
		         count: 1
		         name: litsearch
		       }
		       { [-]
		         count: 2
		         name: makemv
		       }
		       { [-]
		         count: 1
		         name: mvcombine
		       }
		       { [-]
		         count: 2
		         name: mvexpand
		       }
		       { [-]
		         count: 2
		         name: noop
		       }
		       { [-]
		         count: 4
		         name: prerest
		       }
		       { [-]
		         count: 1
		         name: prestats
		       }
		       { [-]
		         count: 4
		         name: presummarize
		       }
		       { [-]
		         count: 2
		         name: rename
		       }
		       { [-]
		         count: 4
		         name: rest
		       }
		       { [-]
		         count: 1
		         name: search
		       }
		       { [-]
		         count: 3
		         name: stats
		       }
		       { [-]
		         count: 4
		         name: summarize
		       }
		       { [-]
		         count: 6
		         name: timeliner
		       }
		       { [-]

		count: 1 name: where }] }
usage.search.searchtelemetry.type	搜索类型、计数、读取的平均字节、读取的最大字节、持续时间。	{ [-] searchTypeInformation: [[-] { [-] avg(bytes_read): 90531.02683363149 count: 559 duration: 1488.45949719 max(bytes_read): 46382154 type: adhoc } { [-] avg(bytes_read): 0 count: 3224 duration: 199.042348043 max(bytes_read): 0 type: scheduled }] }
usage.search.searchtelemetry.sourcetypeUsage	来源类型使用情况。	{ [-] sourcetypeUsage: [[-] { [-] http_event_collector_metrics: 1 kvstore: 1 mongod: 3 search_telemetry: 1 splunk_disk_objects: 1 splunk_resource_usage: 1 splunk_web_service: 3 splunkd: 11 splunkd_remote_searches: 3 splunkd_ui_access: 2 }] }
usage.search.type	各类型搜索的数量。	{ [-] ad-hoc: 3619 datamodel acceleration: 1 other: 2 report acceleration: 1 scheduled: 34412 summary index: 506 }
		{ [-] global config: { [-] cachemanager: { [-] eviction_padding: 5120 hotlist_bloom_filter_recency_hours: 360 hotlist_recency_secs: 86400 max_cache_size: 0 } clustering: { [-] mode: disabled } diskUsage: { [-] minFreeSpace: 5000 } } list of indexes: { [-] non-SmartStore enabled: ea9f4255e269599dd961c3efd8775ab5ac1d3948,f1b1f1f40216ee2e2b5a5 7a7a0fa8d74d,568b2f85dcc1c8608d713a66a0eabd5b88956547,d140ef99 06619007f6659c41827885700,66f79d8a6327c82c9033e6d65ff03322a376 f77578164d1b03fb4c931f727a3e2966e541d4,0d176ba3aa7be325bcaeaf1 c2d248f862,05535ecff78ef61038725b6ed3016b8c9a037496,f397214775 } per index config: { [-] external_05535ecff78ef61038725b6ed3016b8c9a037496: { [- frozenTimePeriodInSecs: 188697600 hotlist_bloom_filter_recency_hours: none hotlist_recency_secs: none maxGlobalDataSizeMB: 0 maxHotSpanSecs: 7776000 }

usage.smartStore.Config	SmartStore 全局配置、各索引配置、经过哈希处理的内外部索引名称。	external_0d176ba3aa7be325bcaeaf13ea2da4d155f04e33: { [-
		  frozenTimePeriodInSecs: 188697600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		external_66f79d8a6327c82c9033e6d65ff03322a3766c87: { [-
		  frozenTimePeriodInSecs: 604800
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		external_87da723b9f33eb0f1bcad8ea3405d8c2d248f862: { [-
		  frozenTimePeriodInSecs: 188697600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		external_b28b7af69320201d1cf206ebf28373980add1451: { [-
		  frozenTimePeriodInSecs: 188697600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		external_f397214775e4f8191c17e838b4d518cb90051672: { [-
		  frozenTimePeriodInSecs: 188697600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		external_f4f77578164d1b03fb4c931f727a3e2966e541d4: { [-
		  frozenTimePeriodInSecs: 188697600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		internal_302a11446cd560395417c9e2d2177a7a0fa8d74d: { [-
		  frozenTimePeriodInSecs: 1209600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		internal_568b2f85dcc1c8608d713a66a0eabd5b88956547: { [-
		  frozenTimePeriodInSecs: 1209600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		internal_5a74588fcf73bdd06619007f6659c41827885700: { [-
		  frozenTimePeriodInSecs: 2419200
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		internal_d140ef99de26b2f8b6f54081084d0b8b2f59f36f: { [-
		  frozenTimePeriodInSecs: 63072000
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		internal_ea9f4255e269599dd961c3efd8775ab5ac1d3948: { [-
		  frozenTimePeriodInSecs: 188697600
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 7776000
		}
		internal_f1b1f1f40216ee2e2b5a526eec43c8f71cccef5d: { [-
		  frozenTimePeriodInSecs: 2592000
		  hotlist_bloom_filter_recency_hours: none
		  hotlist_recency_secs: none
		  maxGlobalDataSizeMB: 0
		  maxHotSpanSecs: 432000

		} } total storage capacity: { [-] 0: { [-] available: 130459.672 capacity: 476802.039 free: 142405.105 fs_type: apfs } } }
usage.streamingMetricAlerts	流指标告警功能的使用：按告警分组、触发评估和阈值、告警抑制、结果拓展或过滤，以及告警操作。	{ [-] actionList: email,rss alertSeverity: 2 alertTrackable: No hasComplexCondition: Yes hasDescription: Yes hasFilter: No hasGroupby: Yes hasLabels: Yes hasMultipleMetricIndexes: Yes name: 227a3ad2631f5a7fe8709f7cac3308580f532d75 triggerActionPerGroup: Yes triggerEvaluationPerGroup: Yes triggerExpires: 48h triggerMaxTracked: 10 triggerPrepare: No triggerSuppress: No triggerThreshold: once after 5m }
usage.users.active	每天活动的用户数。	{ [-] active: 1 }
usage.workloadManagement.report	工作负荷管理：经过哈希处理的主机和 GUID、操作系统/版本、服务器角色、WLM 支持和启用状态、池配置、角色配置。	{ [-] categories: { [-] ingest: { [-] allocated cpu percent: 20.00 allocated mem limit: 100.00 } misc: { [-] allocated cpu percent: 10.00 allocated mem limit: 10.00 } search: { [-] allocated cpu percent: 70.00 allocated mem limit: 70.00 } } guid: F3DC7C6B-DF89-4585-A7A6-B4A3510D957D host: eadc124359ea492c6b04c079dcf3bec3be2fb32c os: Linux osVersion: 4.9.184-linuxkit pools: { [-] total count: 0 } rules: { [-] total count: 0 } server roles: indexer, license_master, kv_store wlm enabled: 0 wlm supported: 1 }

支持使用情况数据示例

支持使用情况数据是与聚合使用情况数据相同的数据，但是如果您选择发送支持使用情况数据，Splunk 可以使用许可证 GUID 识别特定客户帐户的使用情况数据以帮助故障排除支持案例。

请参阅“聚合使用情况数据示例”。

支持使用情况数据与诊断文件数据不同。诊断文件从不会自动生成，且只能由具有适当权限的用户手动发送到 Splunk 支持。有关诊断文件的更多信息，请参阅*《故障排除手册》*中的“生成诊断”。

许可证使用情况数据示例

下面的示例演示了在启用许可证使用情况数据共享时发送给 Splunk 的数据。

组件	描述	示例
licensing.stack	许可证配额及消耗	{ [-] consumption: 14462827 guid: 47798245-85D7-4DCA-A303-D49910F40ED1 host: fecaab81b0934386719a161bfe3656ca782ec6d14806ae15d4ec4dc5 name: enterprise pools: [[-] { [-] consumption: 14462827 quota: 53687091200 }] product: enterprise quota: 53687091200 subgroup: Production type: enterprise }

软件版本数据示例

下面的示例演示了在启用软件版本数据共享时针对 Splunk Enterprise 发送给 Splunk 的软件版本数据。

描述	示例
CPU 架构	x86_64
操作系统	Linux
产品	Enterprise
Splunk 角色	管理员
许可证组、子组和哈希 GUID	Enterprise, Production, <GUID>
Splunk 软件版本	7.0.0

下面的示例演示了在启用软件版本数据共享时针对各应用发送给 Splunk 的软件版本数据。

描述	示例
应用 ID、名称和版本	gettingstarted, Getting Started, 1.0
Splunk 版本	7.0
平台、架构	Darwin, x86_64

应用使用情况数据示例

除了本主题中枚举的数据之外，某些应用会收集使用情况数据。有关详细信息和示例，请参阅各应用文档。

- Splunk Add-on Builder：在 Splunk Add-on Builder 中共享数据
- Splunk App for AWS：在 Splunk App for AWS 中共享数据
- Splunk App for ServiceNow：在 Splunk App for ServiceNow 中共享数据
- Splunk Business Flow：在 Splunk Business Flow 中共享数据
- Splunk DB Connect：在 Splunk DB Connect 中共享数据
- Splunk Enterprise Security：在 Splunk Enterprise Security 中共享数据
- Splunk Industrial Asset Intelligence：在 Splunk Industrial Asset Intelligence 中共享数据
- Splunk IT Service Intelligence：共享 Splunk IT Service Intelligence 中的数据
- Splunk Machine Learning Toolkit：在 Splunk Machine Learning Toolkit 中共享数据
- Splunk Security Essentials：Splunk Security Essentials 遥测

Splunk 如何收集数据

如果启用聚合使用情况数据、支持使用情况数据或许可证使用情况数据，那么 Splunk Enterprise 部署中的一些实例将通过计划搜索收集数据。从上午 3:05 开始，在运行搜索的节点上按序列运行大部分搜索，除非您更改计划。所有搜索由脚本式输入触发。

此外，如果启用聚合数据集合或支持数据集合，用户活动相关的会话数据会直接从浏览器传输到 Splunk 遥测 API。

运行搜索并将数据发送到 Splunk 的实例

您的部署中的一个主要实例运行分布式搜索以收集大多数使用数据。此主要实例还负责将数据发送到 Splunk。具体哪个实例作为基本实例取决于您的部署细节：

- 如果启用索引器群集，群集管理器为主要实例。如果您有多个索引器群集，每个群集管理器都是一个主要实例。
- 如果启用搜索头群集化，而不是索引器群集，则各搜索头管理员为主要实例。
- 如果您的部署没有使用群集化，则搜索通过搜索头运行。

如果您选择退出检测，则此主要实例上的搜索不会运行。

部署中的其他实例根据互连详情运行数较少的搜索。如果启用数据集合，则主要节点会收集这些搜索中的数据并发送至 Splunk。如果您选择退出，这些搜索仍会运行，但不会发送任何数据。

对于将数据发送到 Splunk 的部署，负责搜索的主要实例必须连接到没有防火墙规则或代理服务器配置（防止流量出站到 https://quickdraw.splunk.com/telemetry/destination 或 https://*.api.splkmobile.com）的网络。如有必要，将 "outbound" 流量的 URL 列入白名单。

Splunk Enterprise 文件系统中的检测

搜索运行后，已搜索数据已打包和发送到 Splunk，也索引到 _telemetry 索引。会话数据是直接从浏览器传输到遥测 API，并且不存在于 _telemetry 索引中。_telemetry 索引默认保留两年，大小不超过 256MB。

检测应用驻留在 $SPLUNK_HOME/etc/apps/splunk_instrumentation 中的系统文件。

Splunk 如何使用其收集的数据

如果您共享聚合使用情况数据，Splunk 会收集您的 Splunk 软件使用情况相关数据并将其与其他部署的类似数据聚合在一起，这样 Splunk 能够了解哪些功能和工作流程对用户来说是最重要的，并随着时间的推移改进其产品和服务。收集的许可证 ID 只用于验证数据是否从有效的 Splunk 产品中接收并只为选择许可证使用情况报告的部署保留。这些许可证 ID 有助于 Splunk 分析 Splunk 产品在客户群中的部署差异，并且不会附加于任何聚合使用情况数据。

如果您共享支持使用情况数据，Splunk 会将您的软件使用情况数据连接到安装的许可证 ID，这样 Splunk 可以为您的部署提供改进的支持和服务。支持使用情况数据被支持和客户成功团队用来故障排除您提交的支持问题并改善您的 Splunk 软件实施。

如果您共享许可证使用情况数据，Splunk 会使用数据确保符合您购买产品。

如果您共享 Splunk 产品版本数据，Splunk 会将数据用于追踪使用特定版本的 Splunk 软件产品的部署数量，以及当更新可用时提供在产通知。对于应用来说，版本数据和应用下载信息相关，用于为应用开发人员填充 Splunkbase 上的应用分析视图，并计算应用详细信息页面上的安装数量。

Splunk 如何传输和存储其收集的数据

当您启用聚合、支持和许可证使用情况数据共享时，Splunk Enterprise 会运行搜索收集此数据并将搜索摘要发送到集合端点。会话数据和 Splunk 软件版本数据不包括在搜索中。事件生成时，会通过浏览器发送会话数据。您的浏览器在您登录 Splunk Web 之后会将 Splunk Enterprise 相关的版本数据发送到 Splunk。每天通过从 splunkd 到 splunkbase.splunk.com 的 REST 调用将 Splunk 应用相关的版本数据发送到 Splunk。数据从部署中的单一主要实例传输到 Splunk。请参阅“运行搜索并将数据发送到 Splunk 的实例”。

遥测数据离开部署之前是通过 SSL 加密的，在将数据安全存储在 Splunk Cloud 实例中之前会验证证书。用于客户遥测的 Splunk Cloud 实例有严格的访问控制，会定期进行审查。有关 Splunk 如何收集、使用和透露已收集数据信息的更多信息，请参阅“Splunk 隐私策略”。有关 Splunk 数据隐私、安全和合规性实践的更多信息，请参阅“Splunk 保护”。

查看从您的部署发送的数据

您可以查看 Splunk Web 中您的部署最近发送的聚合使用情况数据、支持使用情况数据和许可证使用情况数据。

1. 导航到**设置 > 检测**。
2. 点击您想要在“搜索”中查看的数据类别。

本日志只有在集合首次运行后才可见。在生产环境中选择加入前，如检查要发送的数据类型，则可以在沙盒环境中选择加入。

要查看浏览器会话数据，使用 JavaScript 登录浏览器。查看发送到含有 splkmobile 的 URL 的网络事件。按用户操作触发事件，如导航到 Splunk Web 中的新页面。

要查看发送的 Splunk Enterprise 版本数据，在您登录 Splunk Web 时查看 JavaScript 网络流量。数据是在 quickdraw.splunk.com 的调用中发送的。

如何选择退出

Splunk 默认会收集支持使用情况数据、聚合使用情况数据、许可证数据和软件版本数据。您可以随时选择加入或者退出。

前提条件
要启用或禁用使用情况数据收集，您的用户角色必须包括 `edit_telemetry_settings` 功能。

选择退出共享聚合或支持使用情况数据

要更改聚合或支持使用情况数据共享设置，遵循以下步骤：

1. 单击 Splunk Web 中的**设置** > **检测**。
2. 单击**使用情况数据**旁边的齿轮图标。
3. 调整滑块以启用或禁用共享聚合或支持使用情况数据。

选择退出自动共享许可证数据

默认情况下，Splunk 会根据您安装的许可证收集许可证使用情况数据，以确保符合您购买的产品。要禁用自动共享许可证数据，编辑 `telemetry.conf` 文件的本地副本并设置 `sendLicenseUsage = false`。

有些许可证项目需要您提供许可证使用情况报表。最简单易行的方式是自动将此信息发送至 Splunk。如果您禁用自动许可证数据共享，可以手动发送许可证数据。每次您想要手动发送数据时按照这些步骤操作：

1. 在搜索头上登录 Splunk Web。
2. 选择**设置** > **检测**。
3. 单击**导出**。
4. 选择数据范围和数据类型。
5. 单击**发送**直接将数据发送到 Splunk 或单击**导出**将数据导出到本地机器并使用其他机制将数据发送到 Splunk。

选择退出共享软件版本数据

要停止发送您已安装的 Splunk Enterprise 的 Splunk 版本数据，在 web.conf 的本地副本中将 `updateCheckerBaseURL` 设置的值设为 `0`。

此外，您可以关闭各 Splunk 应用的版本数据共享。要禁用新版本通知并停止发送应用版本相关的 Splunk 数据，在各应用的 `app.conf` 文件的本地副本中将 `check_for_updates` 设为 `false`。

选择退出共享数据并防止将来管理员选择加入

要退出所有收集使用情况、支持和许可证情况数据并阻止将来其他管理员启用收集，在各群集中的一个搜索头和各非群集搜索头上执行以下操作：

1. 单击 Splunk Web 中的**设置** > **检测**。
2. 单击**使用情况数据**旁边的齿轮图标。
3. 禁用所有选项。
4. 单击**设置** > **访问控制** > **角色**。
5. 删除 `admin` 角色中的 `edit_telemetry_settings` 功能。具有此角色的用户将不会再收到数据集合通知，也无法访问 Splunk Web 中的**设置** > **检测**。

如果您想要禁用收集非集中管理 Splunk 平台多个部署的使用情况信息，阻止 `e1345286.api.splkmobile.com` 的 DNS 解析。

如何调整数据集合计划

如果共享数据，收集过程默认会在上午 3:00 开始。您可以更改收集的频率和时间。

如果您部署中的所有实例运行 Splunk Enterprise 7.1.0 或更高版本，您可以计划每天或每周运行检测，在一天中的任意整点时开始运行。集合过程会在部署中的几个实例上按顺序运行几个搜索。根据您的部署大小以及是每天还是每周运行检测，在主要实例上运行最终搜索之前可能需要几分钟时间，才能将数据打包发送至 Splunk。请参阅“运行搜索的实例”。

更改检测收集计划有利有弊。将收集计划为每周运行而不是每天运行可能会减少一周的搜索负载总量。每周收集所需时间比每天收集时间长，因为需要收集整整七天的数据。如果您选择每周收集，将收集时间设置为搜索负载预计较低时。

使用 Splunk Web 更改收集计划

1. 在 Splunk Web 搜索头上，导航到**设置 > 检测**。
2. 单击**使用情况数据**旁边的齿轮图标。
3. 单击**编辑使用情况数据计划**。
4. 选择频率、日期和时间。
5. 单击**保存**。

您不需要重新启动搜索头。

使用配置文件更改收集计划

您可以通过编辑 `telemetry.conf` 文件更改收集计划。关于编辑此文件的指南，请参阅 telemetry.conf。

1. 在任一搜索头上的命令行，导航到 `$SPLUNK_HOME/etc/apps/splunk_instrumentation/etc/local/`。
2. 新建或编辑 `telemetry.conf`。
3. 根据 `telemetry.conf.spec` 中的指南，编辑 `scheduledHour`、`scheduledDay` 或 `reportStartDate` 的值。

性能影响

默认每天上午 3 点开始汇总并发送聚合使用情况、支持使用情况和许可证使用情况数据。Splunk 测试了一个搜索头和三个索引器的部署的性能影响，发现搜索运行期间有以下性能影响：

- CPU 开销增加 4.5%
- 对内存、磁盘和网络开销的影响可忽略不计
- 常规搜索工作负载的搜索时间最多增加 5%

事件生成时，通过浏览器发送会话数据和更新检查器数据。性能暗示可忽略不计。

配置 Splunk 许可证

Splunk Enterprise 许可授权如何运作

当数据发送到 Splunk 平台时，该数据会被**建立索引**并存储在磁盘上。索引过程的其中一个环节是测量正引入的数据量，并将该值报告给许可证主服务器以进行许可量跟踪。

数据如何测量

引入**事件数据**时，测得的数据量是基于放入索引管道中的原始数据。它不是基于写入磁盘的压缩数据量。由于数据是在索引管道中测量的，因此在索引之前过滤并丢弃的数据不会计入许可量配额。

引入**指标数据**时，每个指标事件都会像事件数据一样按量进行测量。但是，每个事件大小的测量值上限为 150 个字节。超过 150 个字节的指标事件只会记录为 150 个字节。指标数据提取自与事件数据一样多的许可证配额。

不会测量的数据

索引到内部索引（例如 _internal 和 _introspection）的 Splunk 软件故障排除和内部通信日志不会计入您的许可量配额。

摘要索引和指标汇总摘要的使用不会计入许可量配额。

如果超出许可量会如何？

当您超过许可证所允许的索引量时，就会收到许可证警告。索引量会基于许可证主服务器上的时钟，在前一天午夜到第二天午夜的时段内进行每日测量。请参阅“关于许可证违规”。

vCPU 针对基础设施许可是如何计算的

对于 Splunk 软件，vCPU 是主机操作系统报告的任何逻辑 CPU 内核。vCPU 可以表示物理内核、通过使用超线程或同时多线程创建的逻辑内核，或通过虚拟化提供的共享逻辑 CPU。在虚拟化环境和云基础架构分配中配置资源时，通常会使用术语 vCPU。但是 vCPU 的每种实现都是唯一的。

Splunk 软件使用操作系统报告的 CPU 作为每个测量节点的总 vCPU。

会测量哪些节点并计入 vCPU 用量？

所有 Splunk Enterprise 搜索头和索引器的 vCPU 总数都会计入 vCPU 许可容量。

许可证类型和许可证管理

可用的 Splunk 软件许可证有多种，请参阅“Splunk 许可证类型”。

要了解有关 Splunk 软件许可证管理，请参阅“分配许可量”。

Splunk Enterprise 许可证类型

每个 Splunk 软件实例都需要一个许可证。Splunk 软件许可证指定了您可以使用的功能以及可以建立索引的数据量。作为客户，您会需要使用 Splunk 平台实例（如 Splunk Enterprise）的许可证以及高级应用许可证（如 Enterprise Security）。

Splunk Enterprise 许可证

Splunk Enterprise 许可证是最常见的许可证类型。它们可以在定义的每天索引数据或 vCPU 计数限制内访问 Splunk Enterprise 完整功能集。

Splunk Enterprise 许可证

Enterprise 许可证衡量的是每日数据引入量，必须购买。此类许可证的相关情况如下：

- Enterprise 许可证提供所有 Splunk Enterprise 功能。
- Enterprise 许可证适用于 Splunk Enterprise 的单实例和分布式安装。
- Enterprise 许可证可以堆叠并分配给许可证池。有关拆分或分配部分许可证的信息，请参阅“分配许可量”。
- Enterprise 许可证可以按每日索引量购买。有关购买信息，请参阅《Splunk Enterprise 定价常见问题》。
- Enterprise 许可证不能与基于基础设施的许可证堆叠。
- 对于每天 100 GB 或更多数据的许可证堆栈，Enterprise 许可证当前不强制视为许可证违规。

- 如果您的许可证堆栈每天的数据量少于 100 GB，并且存在多个许可证警告，则 Enterprise 许可证会阻止搜索操作。要了解许可证警告和违规，请参阅“许可证违规期间发生了什么？”

请与 Splunk 销售人员联系，了解有关购买 Splunk Enterprise 的 Enterprise 许可证的信息。

Splunk Enterprise Infrastructure 许可证

Enterprise Infrastructure 许可证衡量的是 vCPU 分配，必须购买。此类许可证的相关情况如下：

- Enterprise Infrastructure 许可证提供所有 Splunk Enterprise 功能。
- Enterprise Infrastructure 许可证适用于单实例和分布式安装。
- Enterprise Infrastructure 许可证可以堆叠并分配给池。有关拆分或分配部分许可证的信息，请参阅“分配许可量”。
- Enterprise Infrastructure 许可证可以按 vCPU 数量购买。相关购买信息，请参阅“基于基础设施的定价”。
- Enterprise Infrastructure 许可证不能与基于数据量的许可证堆叠。
- Enterprise Infrastructure 许可证当前不会将超过 vCPU 使用量视为许可证违规。

请与 Splunk 销售人员联系，了解有关购买 Splunk Enterprise 的 Enterprise 许可证的信息。

Splunk Enterprise 许可证的对比

请参阅下表了解 Splunk Enterprise 许可证类型之间的对比：

许可证相关信息	Enterprise： 许可证堆栈的每日数据少于 100 GB	Enterprise： 许可证堆栈的每日数据达 100 GB 或更大	Enterprise：基础设施 (vCPU)
当前会在违规时阻止搜索	是	否	否
在警告或违规时进行内部记录并将信息显示在 Splunk Web	是	是	否
具有其他许可证	是	是	否
启用 Splunk Enterprise 完整功能集	是	是	是

Splunk 开发人员许可证

有两种不同的 Splunk 开发人员许可证，即开发/测试许可证和开发人员许可证：

Splunk 开发人员许可证用于开发和测试，不能用于生产用例。

开发/测试许可证

开发/测试许可证仅适用于拥有 Splunk Enterprise 许可证的客户。具有预生产环境的客户使用该许可证来测试升级并评估自定义应用的配置更改，然后再将更改移至生产环境。此类许可证的相关情况如下：

- 通过开发/测试许可证，您可以有限地访问 Splunk Enterprise 功能。
- 开发/测试许可证仅适用于独立的单实例使用安装。
- 开发/测试许可证不能与其他许可证堆叠。
- 开发/测试许可证的有效期为 6 个月。您可以使用“Splunk 客户的个性化开发/测试许可证”中的申请表，在许可证到期前一周提交延长许可证有效期的请求。
- 开发/测试许可证允许您每天索引 50 GB 的数据。如果超过该限制，您将收到许可证警告。
- 如果有多个许可证警告，则开发/测试许可证会阻止搜索操作。要了解许可证警告和违规，请参阅“许可证违规期间发生了什么？”
- 采用开发/测试许可证的 Splunk Enterprise 实例在 Splunk Web 中会有一个“开发/测试”标记。

开发/测试许可证不会与其他许可证堆叠。例如，如果您在安装 Splunk Enterprise 许可证后安装开发/测试许可证，则开发/测试许可证将删除并替换 Splunk Enterprise 许可证文件。如果您需要重新申请，则应该保留一份开发/测试许可证的副本。

若想申请开发/测试许可证，请参阅“Splunk 客户的个性化开发/测试许可证”。

开发人员许可证

开发人员许可证提供在开发 Splunkbase 应用或私有应用时使用的功能，并在部署或发布之前促进 Splunk Enterprise 分布式环境中的应用测试。此类许可证的相关情况如下：

- 开发人员许可证提供所有 Splunk Enterprise 功能。

- 开发人员许可证适用于 Splunk Enterprise 的单实例和分布式安装。
- 开发人员许可证不能与其他许可证堆叠。
- 开发人员许可证的有效期为 6 个月。您可以使用“Splunk 开发人员许可证注册”中的申请表，在许可证到期前一周提交延长许可证有效期的请求。
- 开发人员许可证允许您每天索引 10 GB 的数据。如果超过该限制，您将收到许可证警告。
- 如果有多个许可证警告，则开发人员许可证会阻止搜索操作。要了解许可证警告和违规，请参阅“许可证违规期间发生了什么？”

要申请开发人员许可证，请参阅“Splunk 开发人员许可证注册”。

Splunk 开发人员许可证的对比

请参阅下表了解 Splunk 开发人员许可证类型之间的对比。

许可证相关信息	开发/测试	开发人员
当前会在违规时阻止搜索	各有不同	是
在警告或违规时进行内部记录并将信息显示在 Splunk Web	是	是
具有其他许可证	否	否
启用 Splunk Enterprise 完整功能集	否	是

其他类型的许可证

Splunk 为特定用途提供功能减少的其他许可证：

Splunk Enterprise Trial 许可证

当您下载并安装 Splunk Enterprise 时，系统会自动为该实例生成 Splunk Enterprise Trial 许可证。此类许可证的相关情况如下：

- Enterprise Trial 许可证提供对所有 Splunk Enterprise 功能的访问权限。
- Enterprise Trial 许可证仅适用于 Splunk Enterprise 的独立单实例安装。
- Enterprise Trial 许可证不能与其他许可证堆叠。
- 从您安装 Splunk Enterprise 实例算起，Enterprise Trial 许可证会在 60 天后失效。
- Enterprise Trial 许可证允许您每天索引 500 MB 的数据。如果超过该限制，则会收到许可证警告。
- 如果有多个许可证警告，则 Enterprise Trial 许可证会阻止搜索操作。要了解许可证警告和违规，请参阅“许可证违规期间发生了什么？”

如果要构建一个由多个相互通信的 Splunk Enterprise 实例组成的试用版 Splunk Enterprise 分布式部署环境，则每个实例必须各自使用自行生成的 Enterprise Trial 许可证。您无法针对 Enterprise Trial 许可证进行集中式许可证管理。

Sales Trial 许可证

Sales Trial 许可证适用于由于时间或索引量限制而无法使用 Enterprise Trial 许可证的客户。如果您在为大型部署准备试验或概念验证，并且希望试验期较长、索引量较大，则可以索取 Sales Trial 许可证。请联系 Splunk 销售人员或您的销售代表，提出申请。

Free 许可证

Free 许可证提供完全免费的 Splunk Enterprise 实例，但功能和许可证使用受到限制。此类许可证的相关情况如下：

- Free 许可证提供对部分 Splunk Enterprise 功能的访问权限。
- Free 许可证仅适用于 Splunk Enterprise 的独立单实例安装。
- Free 许可证不能与其他许可证堆叠。
- Free 许可证不会过期。
- Free 许可证允许您每天索引 500 MB 的数据。如果超过该限制，您将收到许可证警告。
- 如果有多个许可证警告，则 Free 许可证会阻止搜索操作。要了解许可证警告和违规，请参阅“许可证违规期间发生了什么？”

有关 Splunk Free 中禁用的功能的列表，请参阅“关于 Splunk Free”。

转发器许可证

转发器许可证是 Splunk Enterprise 的内嵌式许可证。它的用途是允许无限制转发，以及配置管理、验证和发送数据所需的

Splunk Enterprise 功能子集。

通用转发器默认情况下会安装转发器许可证。对于重型转发器和轻型转发器，必须进行手动配置才能使用转发器许可证。

重型转发器通常用于执行比转发器许可证所允许的更为复杂的功能。若需使用高级验证、告警、分布式搜索、KVStore 和索引等功能，则需要 Enterprise 许可证。您可以将重型转发器配置为许可证主服务器的对等节点，从而使用这些功能。要了解如何配置连接用于许可证管理，请参阅“管理许可证从服务器”

Beta 许可证

Splunk Beta 软件版本需要有自己的 Beta 许可证，此许可证与其他 Splunk 版本不兼容。Beta 许可证通常会在指定的 Beta 发布期限内启用特定的 Splunk Enterprise 功能。

Splunk 高级应用许可证

Splunk 高级应用许可证与 Splunk Enterprise 许可证结合使用以访问应用的功能。Splunk 高级应用包括但不限于 Splunk Enterprise Security 和 ITSI。

许可证和分布式部署

分布式 Splunk Enterprise 部署由多个 Splunk Enterprise 实例组成。单独的实例实施不同的功能，如索引和搜索管理。根据实例执行的功能，各实例被分类为一个或多个**组件**类型。请参阅*分布式部署*中的“使用 Splunk Enterprise 组件调整您的部署规模”和“有助于管理部署的组件”。大多情况下，一个实例仅用作一个单一组件，但是实例有时会将若干组件的功能结合起来。

本主题和独立的 Splunk Enterprise 部署不相关，独立的 Splunk Enterprise 部署由单一的 Splunk Enterprise 实例和转发器组成。关于独立的部署，只需直接在实例上安装合适许可证即可。请参阅“安装许可证”。

许可证要求

所有 Splunk 软件实例都必须有许可证。

- Splunk Enterprise 实例需要 Enterprise 许可证的访问权限，除非这些实例仅用作转发器。即使实例不用为外部数据建立索引，仍需要许可证访问权限。只有 Enterprise 许可证才能访问分布式部署的特定功能，例如**分布式搜索**和**部署服务器**。将实例连接至 Enterprise 许可证的推荐方式是将实例关联至许可证主服务器。请参阅“配置许可证从服务器”。
- 通用转发器仅需要转发器许可证。如果重型转发器需要执行其他功能，如索引数据或管理搜索，则需要 Enterprise 许可证的访问权限。

此表提供了不同 Splunk Enterprise 组件类型所需的许可证摘要。

组件类型	许可证类型	注释
索引器	Enterprise	
搜索头	Enterprise	
部署服务器	Enterprise	
索引器群集管理器节点	Enterprise	
搜索头群集 Deployer	Enterprise	
监视控制台	Enterprise	
通用转发器	转发器	
轻型转发器	转发器	
重型转发器	Enterprise 或转发器	索引数据或使用其他 Splunk Enterprise 功能的重型转发器需要 Enterprise 许可证的访问权限。

组件和许可授权问题

索引器

索引器可索引、存储和搜索外部数据。

要参与分布式部署，索引器需要访问 Enterprise 许可证。用许可证测量索引器引入的数据。

搜索头

搜索头是管理搜索的 Splunk Enterprise 实例。

搜索头需要 Enterprise 许可证的访问权限。

转发器

转发器引入数据并将该数据转发至其他转发器或索引器。由于在索引之前不会测量数据，因此转发器不会使用许可证。

在大部分分布式部署中，转发器只需要转发器许可证。请参阅“转发器许可证”。

有几种类型的转发器：

- **通用转发器**自动应用转发器许可证。
- **轻型转发器**必须手动更改为其他许可证类型。您可以使用转发器许可证，但必须通过手动更改为转发器许可证组来启用。
- **重型转发器**必须手动更改为其他许可证类型。如果重型转发器将要执行索引或使用其他 Enterprise 功能，则必须将其连接到**许可证主服务器**节点。

转发器可使用 Free 许可证而不是转发器许可证，但是使用 Free 许可证时一些关键功能是不可用的。例如，使用 Free 许可证的转发器不可用作部署客户端，也不能提供任何验证。

管理组件

所有用作管理组件的 Splunk Enterprise 实例均需要 Enterprise 许可证的访问权限。

管理组件包括**部署服务器**、**索引器群集管理器节点**、**搜索头群集 Deployer** 和**监视控制台**。有关管理组件的信息，请参阅“帮助管理部署的组件”。

群集部署和许可授权问题

索引器群集节点

每个索引器群集节点都需要 Enterprise 许可证。有几个特定于索引器群集的许可证问题：

- 群集节点必须都共享相同的许可授权配置。
- 只有传入数据用于计算许可证的数据量，复制的数据不计算在内。

搜索头群集成员

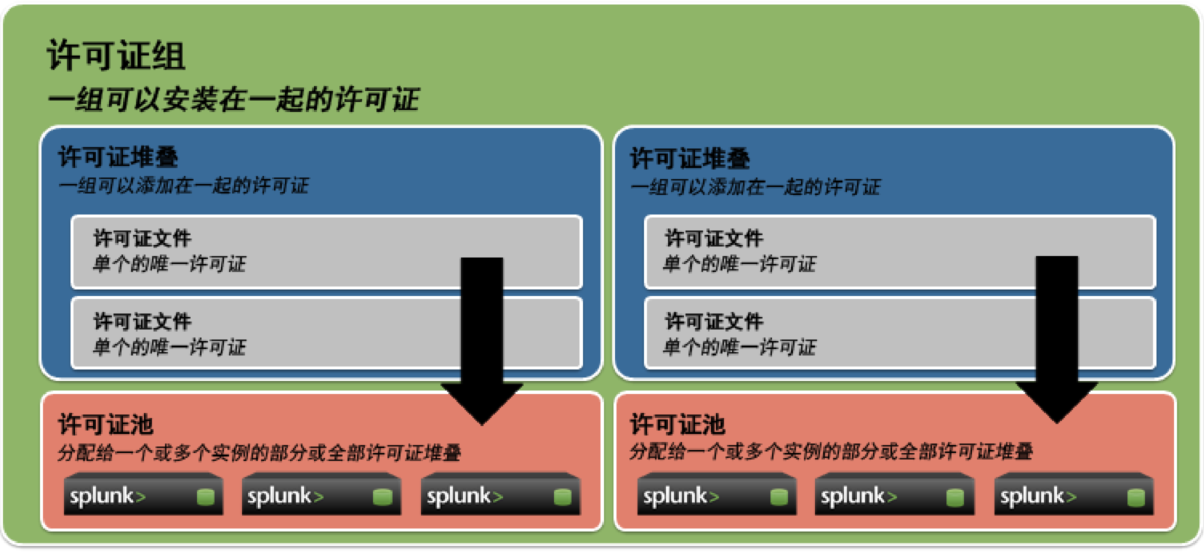
每个搜索头群集成员都需要 Enterprise 许可证的访问权限。搜索头群集 **Deployer** 会将应用分发到成员，也需要 Enterprise 许可证的访问权限。

分配许可量

Splunk Enterprise 许可证管理使用逻辑许可证分组来允许多个许可证和许可证分配，并监视许可证使用情况。

许可证主服务器是 Splunk Enterprise **组件**，用于管理**许可证**和分配许可量。

使用许可证主服务器对许可证进行**分组**，并将其分配给**堆栈**。您可以在堆栈的基础上创建许可证**池**，并将**许可证从服务器**分配给池，以便它们可以使用 Splunk Enterprise 功能并按池使用许可量。



组

许可证组代表一组许可证堆栈：

- 一次只能有一个许可证组处于活跃状态。
- 许可证组可以包含零到多个许可证堆栈。
- 许可证主服务器一次只能管理一个许可证组。

许可证组是：

- Enterprise/Sales Trial 组 -- 此组包含 Enterprise 许可证和 Sales Trial 许可证。您可以堆叠这些许可证。
- Enterprise Trial 组 -- 此组是首次安装新 Splunk Enterprise 实例时的默认组。如果您将实例切换到其他组，就不能再切换回 Enterprise Trial 组。您不能堆叠 Enterprise Trial 许可证。
- Free 组 -- 此组适用于 Splunk Free 的安装。当 Enterprise Trial 许可证在 60 天后到期时，该 Splunk 实例转换为 Free 组。您不能堆叠 Splunk Free 许可证。
- 转发器组 -- 此组适用于仅用作转发器其不执行其他角色（如索引）的转发器。您不能堆叠转发器许可证。

子组

许可证子组用于进一步分类许可证类型，并设于许可证内部。有若干个子组，包括开发测试和生产。一个许可证属于一个子组。

堆叠

堆栈是一个或多个许可证，这些许可证所获得的许可量可以加在一起。Enterprise 许可证和 Sales Trial 许可证可以堆叠在一起，并且可以互相堆叠。这让您无需更换许可证即可增加索引容量。购买更多容量时，只需将许可证添加到相应的堆栈中即可。

每日许可量会在堆栈和池级别进行跟踪。如果您当日的数据引入量超过了分配的许可量，则会在堆栈或池级别收到警告，具体取决于许可量的分配方式。请参阅“关于许可证违规”。

一个堆栈包含一个或多个许可证池，每个池都占据堆叠总许可量的一部分。堆栈和池不适用于以下许可证类型：

- Enterprise Trial
- Free
- 开发/测试。如果您用 Enterprise 许可证安装开发/测试许可证，Enterprise 许可证会被删除。
- 转发器

池

池包含堆栈的部分或全部许可量。您可通过创建多个池和将 Splunk Enterprise 组件分配给特定池来管理许可量使用情况。这些组件必须配置为许可证主服务器的许可证从服务器，并分配给池。

例如，如果您创建了一个用于生产索引器的许可证池，并为测试索引器使用单独的许可证池，则您需要确保测试活动不会影响生产许可证的需求。每个索引器都是许可证主服务器的许可证从服务器，而且每个索引器都要分配给相应的池；有些给生产，有些给测试。

其他组件必须分配至许可证池，这样它们才能访问 Splunk Enterprise 功能，如分布式搜索。通常，您可以将所有 Splunk Enterprise 实例分配至一个许可证池（通用转发器除外）。请参阅“许可证和分布式部署”。

许可证主服务器

许可证主服务器是一个 Splunk Enterprise 组件，用于承载许可证，并让您可以将许可量分配配置给许可证从服务器。您将使用许可证主服务器定义池、添加许可容量以及通过将许可证从服务器添加到池中来管理许可证从服务器。在分布式基础结构中，通常有一个指定的许可证主服务器。

许可证从服务器

许可证从服务器是一个 Splunk Enterprise 实例，它连接到许可证主服务器以接收许可证验证和许可量分配。许可证从服务器需分配给单个许可证池。例如，索引器、搜索头和重型转发器都使用需要 Enterprise 许可证的功能。这些组件在配置为许可证主服务器的许可证从服务器之后，即可根据需要完全访问 Splunk Enterprise 功能和许可量。

配置许可证主服务器

本主题介绍如何将 Splunk Enterprise 实例配置为**许可证主服务器** (LM)。在您继续之前，查看主题“分配许可量”了解有关跨 Splunk Enterprise 实例分配许可量的一般信息。

如果您有单个 Splunk Enterprise 实例，当您在该实例上安装 Enterprise 许可证之后，该实例可用作自身的许可证主服务器。您不需要另行将其配置为许可证主服务器。

如果您有多个 Splunk Enterprise 实例，您需要从中央位置管理许可证访问权限。要进行管理，您必须将其中一个实例配置为许可证主服务器。然后，您可将剩余的各 Splunk Enterprise 实例配置为许可证主服务器的**许可证从服务器**。

选择要作为许可证主服务器的实例。

许可证主服务器 (LM) 通常不需要在专门的 Splunk Enterprise 实例上运行。相反，您可在执行其他任务的实例上共存：

- **监视控制台**。请参阅*《监视 Splunk Enterprise》*中的“哪个实例应托管控制台？”，了解可共存监视控制台和许可证主服务器的情况说明。
- **部署服务器**。请参阅*《更新 Splunk Enterprise 实例》*中的“部署服务器和其他角色”，了解部署服务器和许可证主服务器共存情况说明。
- **索引器群集主节点**。请参阅*《管理索引器和索引器群集》*中的“主节点的其他角色”，了解索引器群集主节点和许可证主服务器共存情况说明。
- **搜索头群集部署程序**。请参阅*分布式搜索*中的“部署程序要求”。
- **搜索头**。
- **索引器**。如果许可证主服务器位于某个索引器上，则该服务器也将是该索引器的许可证主服务器。

有关管理组件共存的常规讨论，请参阅*《分布式部署手册》*中的“帮助管理部署的组件”。

许可证主服务器和从服务器版本兼容性

许可证主服务器 (LM) 版本必须和从服务器的版本相同，或比从服务器更高。

例如：

- 8.0 版本的许可证主服务器和 7.1、7.2、7.3、8.0 版本的从服务器兼容。
- 7.2 版本的许可证主服务器和 7.0、7.1、7.2 版本的从服务器兼容。

兼容性在主要/次要版本级别中很重要，而不是在维护级别上。例如，7.2 许可证主服务器不兼容 7.3 许可证从服务器，因为 7.2 是比 7.3 更低的次要版本级别。但是，7.3.1 许可证主服务器兼容 7.3.3 许可证从服务器，尽管许可证主服务器的维护版本级别较低。

配置许可证主服务器

要配置许可证主服务器：

1. 安装 Enterprise 许可证。请参阅“安装许可证”。
2. 配置许可证从服务器。请参阅“配置许可证从服务器”。
3. 新建池以分配安装的许可证。请参阅“新建或编辑许可证池”。
4. 第二天验证许可证容量使用情况和索引量。请参阅“关于 Splunk Enterprise 的许可证使用情况报表视图”。

安装许可证

本主题介绍如何安装新的 Enterprise 许可证。

如果您用 Enterprise 许可证安装开发/测试许可证，Enterprise 许可证会被替代。

为分布式部署安装许可证

要为 Splunk Enterprise 的分布式部署安装许可证：

1. 如果您尚未选择要用作许可证主服务器的实例，请选择一个实例。请参阅“配置许可证主服务器”。
2. 在许可证主服务器上，导航到**设置 > 许可授权**。
3. 单击**添加许可证**。
4. 执行以下各项中的其中一项：
   1. 单击**选择文件**，浏览许可证文件，然后将其选中，或者
   2. 单击**直接复制和粘贴许可证 XML...**，然后将许可证文件的文本复制到提供的字段中。
5. 单击**安装**。
6. 如果这是您在许可证主服务器上安装的第一份 Enterprise 许可证，则必须重新启动 Splunk Enterprise。

为独立实例安装许可证

要为 Splunk Enterprise 的独立实例安装许可证：

1. 在实例上，导航到**设置 > 许可授权**。
2. 单击**添加许可证**。
3. 执行以下各项中的其中一项：
   1. 单击**选择文件**，浏览许可证文件，然后将其选中，或者
   2. 单击**直接复制和粘贴许可证 XML...**，然后将许可证文件的文本复制到提供的字段中。
4. 单击**安装**。
5. 如果这是您在实例上安装的第一个 Enterprise 许可证，则必须重新启动 Splunk Enterprise。

向许可证文件添加注释

安装 Enterprise 许可证之后，您可以在许可证文件中添加注释或其他文本：

1. 导航到**设置 > 许可证**。
2. 在**许可证**下，单击**注释**。
3. 在“注释”字段中，添加注释或其他文本。
4. 单击**保存**。

“注释”字段仅适用于安装在 Enterprise 许可证组中的许可证。

配置许可证从服务器

本主题介绍如何将 Splunk Enterprise 实例配置为**许可证从服务器**。在您继续之前，查看以下主题：

- 阅读“分配许可量”了解有关跨 Splunk Enterprise 实例分配许可量的一般信息。
- 阅读本手册中的“配置许可证主服务器”以获得有关设置许可证主服务器的说明。

将实例配置为许可证从服务器

1. 在想要配置为许可证从服务器的实例上，登录 Splunk Web，然后导航到**设置 > 许可授权**。

2. 单击**更改为许可证从服务器**。

3. 将单选按钮从**将此 Splunk 实例指定为许可证主服务器**切换到**将其他 Splunk 实例指定为许可证主服务器**。

4. 指定此许可证从服务器应报告的许可证主服务器。您必须提供 IP 地址或主机名和 Splunk 管理端口（默认为 8089）。

5. 单击**保存**。

6. 重新启动 Splunk Enterprise。

使用命令行来管理许可证

有关使用命令行配置许可证从服务器的示例，请参见*《管理员手册》*中的“管理许可证从服务器”。

将许可证从服务器转换为单独的许可证

要切换为本地安装的许可证且仅对此实例有效的单独许可证，导航到**设置 > 许可授权**，然后单击**切换为本地主服务器**。如果此实例还未安装 Enterprise 许可证，要使此更改生效，必须重新启动 Splunk。

新建或编辑许可证池

本主题介绍如何新建或编辑**许可证池**。在您继续之前，阅读“分配许可量”了解有关跨 Splunk Enterprise 实例分配许可量的一般信息。

注意：您还可以通过 CLI 执行这些任务。请参阅“使用 CLI 管理许可证”。

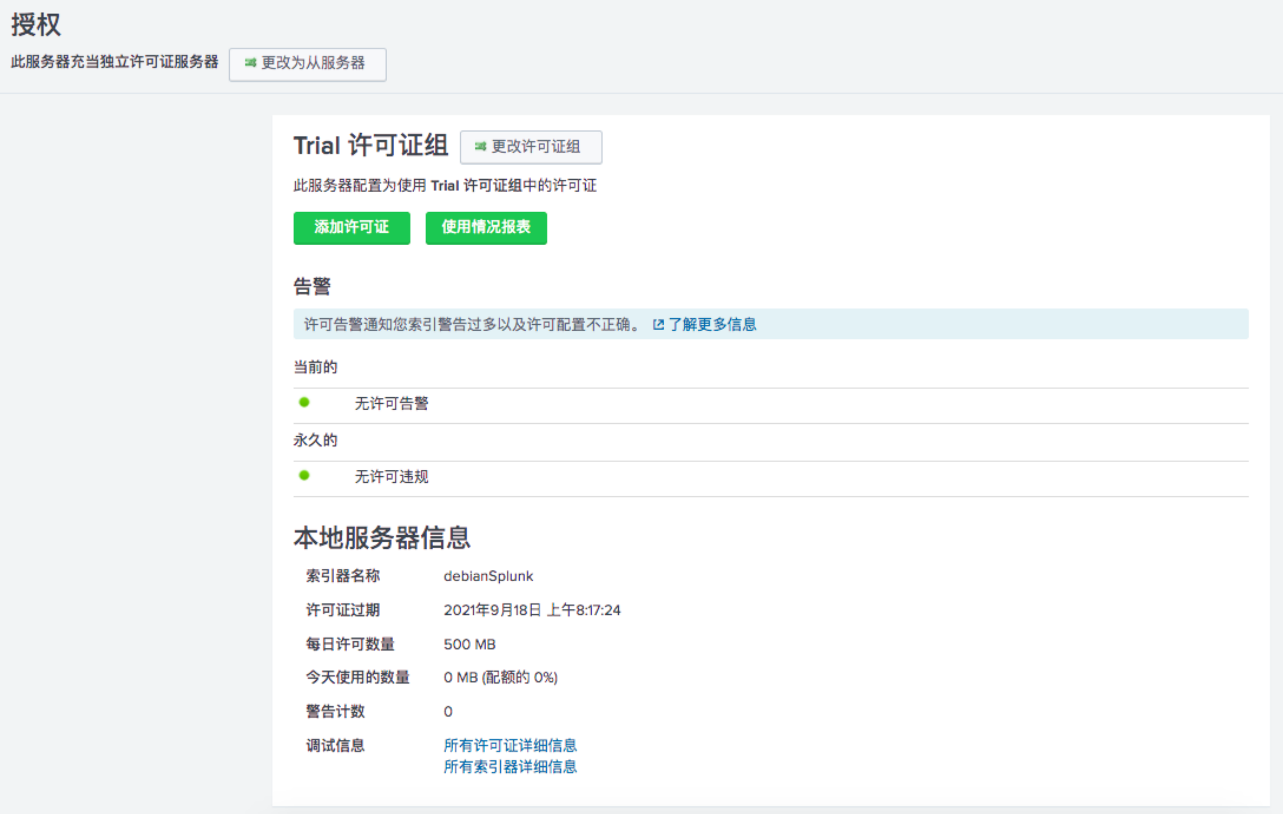
默认许可证池

当您首次在 Splunk Enterprise 实例上安装 Enterprise 许可证时，实例会变成该许可证的许可证主服务器。若干默认配置结果：

- 许可证存在于**许可证堆叠**中，该堆叠被称为 Splunk Enterprise 堆叠
- 堆叠具有默认许可证池，称为 auto_generated_pool_enterprise。
- 任何连接到此许可证主服务器的许可证从服务器都具有默认池的访问权限。

您可更改许可证池集。您还可配置许可证从服务器对该堆叠的访问权限。

以下示例显示 Enterprise 许可证的**设置 > 许可授权**屏幕。



此服务器充当独立许可证服务器

Trial 许可证组

此服务器配置为使用 Trial 许可证组中的许可证

告警

许可告警通知您索引警告过多以及许可配置不正确。

当前的

● 无许可告警

永久的

● 无许可违规

本地服务器信息

索引器名称	debianSplunk
许可证过期	2021年9月18日 上午8:17:24
每日许可数量	500 MB
今天使用的数量	0 MB (配额的 0%)
警告计数	0
调试信息	所有许可证详细信息 所有索引器详细信息

编辑现有的许可证池

您可编辑许可证池以更改池的分配或更改具有池访问权限的索引器集。

1. 在要编辑的许可证池的旁边，单击**编辑**。这将显示“编辑许可证池”页面。
2. （可选）更改池的分配。分配是整个堆叠的许可量中可供访问此池的索引器使用的许可量。分配可以是特定值，也可以是堆叠中的整个可用索引量（只要没有分配给任何其他池）。
3. （可选）更改具有此池访问权限的索引器。这些选项为：
    1. 任何配置为许可证从服务器的索引器均可访问池并在池内使用许可证分配。
    2. 只有特定的许可证可访问池并在池内使用许可证。要允许从池绘制特定的索引器，请单击可用索引器列表中索引器名称旁边的加号，以将其移动到相关的索引器列表中。
4. 单击**提交**。

新建许可证池

要想能够从默认 Enterprise 堆叠创建新许可证池，必须使一些索引量可用，您可以编辑现有的池并减少其分配，也可以删除整个现有的池。单击池名称旁的**删除**来删除池。

要新建许可证池：

1. 单击页面底部的**添加池**。这将显示“新建许可证池”页面。
2. 指定池的名称，也可以添加池的描述。
3. 设置该池的分配。分配是整个堆叠的许可量中可供访问此池的索引器使用的许可量。分配可以是特定值，也可以是堆叠中的整个可用索引量（只要没有分配给任何其他池）。
4. 指定具有此池访问权限的索引器。这些选项为：
    1. 任何配置为许可证从服务器的索引器均可访问池并在池内使用许可证分配。
    2. 只有特定的许可证可访问池并在池内使用许可证。要允许从池绘制特定的索引器，请单击可用索引器列表中索引器名称旁边的加号，以将其移动到相关的索引器列表中。

关于 Splunk Free

如果您想运行 Splunk Enterprise 来进行搜索、数据提取和其他任务而无需担心许可证问题，那么 Splunk Free 是您的理想选择。

- Free 许可证提供了有限的 Splunk Enterprise 功能。
- Free 许可证仅适用于独立的单实例使用安装。
- Free 许可证不会过期。
- Free 许可证允许您每天索引 500 MB 的数据。如果超过该限制，您将收到许可证违规警告。
- 如果有多个许可证违规警告，则 Free 许可证会阻止搜索操作。

Splunk Free 是否适合您？

Splunk Free 的主要限制是许可量有限制，并且有些功能未提供。

- 您每天引入的数据量少于或等于 500 MB 吗？按每天这个数据量来计算，您每月将使用大约 7GB 的存储空间。

- 您是否只打算引入一次大数据集（单天超过 500 MB），然后对其进行分析？Splunk Free 许可证允许您在 30 天内批量加载较大的数据集多达 2 次。这对于大型数据集的取证分析非常有用。

- 如果在 30 天的滚动时间窗口中出现了 3 个许可证警告，则 Free 许可证会阻止搜索操作。如果发生这种情况，Splunk Free 会继续索引您的数据，但会禁用搜索功能。当 30 天内出现的许可证违规警告不足 3 个时，您将重新获得搜索功能。请参阅“关于许可证违规”。

使用 Splunk Free 时哪些功能无法使用？

Splunk Free 仅适用于独立的单实例使用安装。Free 许可证提供大多数 Splunk Enterprise 功能，但以下功能除外：

- 告警（监视）不可用。
- 没有用户或角色。也就是说：
    - 不存在登录机制。您将以管理员级别的用户身份直接进入 Splunk Web。
    - 不会提示您输入用户名/密码，通过命令行或浏览器可以访问和控制 Splunk Free 的所有方面。
    - 只有管理员角色，并且无法配置。您无法添加角色或创建用户帐户。
    - 不支持如用户配额、每个搜索时间范围最大值和搜索过滤条件等搜索限制。
- 分布式搜索配置（包括搜索头群集化）不可用。
- 部署管理功能不可用。
- 索引器群集化不可用。
- 不能以 TCP/HTTP 格式转发。这意味着您可以从 Free 许可证实例向其他 Splunk 平台实例转发数据，但不能向非 Splunk 软件转发。
- 报表加速摘要不可用。

如何获得采用 Free 许可证的 Splunk Enterprise？

1. 在 splunk.com 上创建您的用户帐户。
2. 查看受支持的操作系统列表，以获取“受支持的操作系统”中的 Free 许可证。
3. 从 splunk.com 上的“免费试用版和下载”中下载适用于您的操作系统的最新版 Splunk Enterprise。需要登录。
4. 使用适用于您的操作系统的安装说明。请参阅“安装说明”。
    1. 安装完成后，您将获得有效期为 60 天的 Enterprise Trial 许可证。您可以在 Enterprise Trial 许可证到期之前随时更改为 Free 许可证。请参阅“从 Enterprise Trial 许可证切换到 Free”。
5. 如果您是首次安装 Splunk Enterprise，请参阅*搜索教程*，了解如何将数据索引到 Splunk 软件并使用 Splunk Enterprise 的搜索语言搜索该数据。

从 Enterprise Trial 许可证切换到 Free

首次下载并安装 Splunk Enterprise 时，默认情况下会创建并启用 Enterprise Trial 许可证。您可以根据自己的需求决定继续使用 Enterprise Trial 许可证直至到期，也可以立即切换到 Free 许可证。

切换到 Free 应了解的注意事项

Splunk Enterprise Trial 为您提供了许多在 Splunk Free 中不可用的功能。当您切换到 Free 时，**应注意以下方面**：

- 您所定义的任何告警将不再触发。您将**不再从 Splunk 软件接收告警**。您仍然可以计划搜索运行以达到仪表板和摘要索引的目的。
- outputs.conf 中以 TCP 或 HTTP 格式转发到第三方应用程序的配置将停止工作。
- 您新建的用户帐户或角色将不再起作用。
    - 任何连接到实例的用户将自动以管理员身份登录。不会再显示登录屏幕。
- 任何由管理员以外用户新建且未全局共享的知识对象（如事件类型、交易或来源类型定义）将不再可用。如果您需要在切换到 Splunk Free 之后继续使用这些知识对象，可采取以下做法之一：
    - 在切换之前使用 Splunk Web 将这些知识对象提升为全局可用。请参阅“管理应用和加载项对象”。
    - 手动编辑这些知识对象所在的配置文件以提升这些对象。请参阅“应用架构和对象所有权”。

如果在使用 Enterprise Trial 许可证时尝试在 Splunk Web 中进行任何上述配置，您将收到 Splunk Free 限制警告。

如何切换到 Splunk Free 许可证？

您可以随时从 Enterprise Trial 许可证更改为 Free 许可证。要切换许可证，请执行以下操作：

1. 以具有管理员角色的用户身份登录 Splunk Web
2. 选择**设置 > 许可授权**
3. 单击**更改许可证组**
4. 选择 **Free 许可证**
5. 单击**保存**
6. 将提示您重新启动

如果您的 Enterprise Trial 许可证到期，仍请按照上述步骤进行操作，只是您只能以管理员用户身份登录 Splunk Web。其他凭据都不行。

切换到 Free 许可证后，所有验证以及创建或定义用户的功能都将移除。服务重启后，将不会显示 Splunk Web 登录页面。您将以管理员级别的用户身份直接进入 Splunk Web。

管理 Splunk 许可证

删除许可证

如果某一许可证已到期，您可以删除该许可证。要删除许可证：

1. 在许可证主服务器上，导航到**系统 > 许可授权**。

2. 单击您要删除的许可证旁边的**删除**。

3. 再次单击**删除**确认。

您不能删除许可证列表中的最后一个许可证。

交换许可证主服务器

您可通过将从服务器提升为主服务器并将旧的主服务器降级为从服务器来更改许可证的主服务器。

1. 将许可证从服务器提升为主服务器：
   1. 在从服务器上，导航到**设置 > 许可授权**。
   2. 按照提示将实例配置为许可证主服务器。
   3. 重新启动实例。
2. 在新的许可证主服务器中，添加许可证密钥：
   1. 请参阅“安装许可证”。
   2. 检查许可证密钥是否与旧的许可证主服务器中的密钥匹配。
3. 使其他许可证从服务器指向新的许可证主服务器：在每个从服务器上：
   1. 导航到**设置 > 许可证**。
   2. 更改许可证主服务器 URI 以指向新的许可证主服务器。
   3. 单击**保存**。
   4. 重新启动从服务器实例。
4. 在其中一台许可证从服务器上，确认是否已连接到新的许可证主服务器。
5. 将旧的许可证主服务器降级为从服务器：
   1. 导航到**设置 > 许可授权**
   2. 单击**更改为许可证从服务器**。
   3. 忽略重新启动提示。
   4. 单击**指定其他 Splunk Enterprise 实例作为许可证主服务器**以将实例指向新许可证主服务器。
   5. 停止实例。
   6. 删除 `$SPLUNK_HOME/etc/licenses/enterprise/` 下的旧许可证文件。
   7. 启动实例。
   8. 确认实例是否作为从服务器连接到新的许可证主服务器。

使用 CLI 管理许可证

本主题介绍如何使用 Splunk CLI 命令监视和管理许可证。介绍一些 CLI 许可授权命令的主要用法和选项。任何 CLI 命令的明确引用都属于命令的在线帮助。

有关 Splunk CLI 的一般信息，请参阅“关于 CLI”。

有关通过 Splunk 的 REST API 管理许可证的信息，请参阅《REST API 参考手册》中的“许可证”。

CLI 许可证命令和对象

您可以使用 CLI 添加、编辑、列出和移除许可证和许可证相关对象。可用命令为：

命令	对象	描述
add	licenses, licenser-pools	将许可证或许可证池添加到许可证堆叠。仅当您拥有 Enterprise 许可证时，此命令才可用。
edit	licenser-localslave, licenser-pools	编辑许可证从服务器或许可证池的属性。仅当您拥有 Enterprise 许可证时，此命令才可用。
list	licenser-groups, licenser-localslave, licenser-messages, licenser-pools, licenser-slaves, licenser-stacks, licenses	根据指定的对象，列出该对象或该对象成员的属性。
remove	licenser-pools, licenses	从许可证堆叠中删除许可证或许可证池。

许可证相关对象为：

对象	描述
licenser-groups	可用许可证组集。
licenser-localslave	本地许可证从服务器的配置。
licenser-messages	关于您的许可证状态的告警或警告。
licenser-pools	许可证池集。
licenser-slaves	已联系到主服务器的所有从服务器。
licenser-stacks	许可证堆叠。
licenses	此 Splunk 实例的许可证集。

常用许可证相关任务

以下为您可以使用 CLI 执行的常见许可证相关任务的示例。

管理许可证

要将新许可证添加到许可证堆叠，指定许可证文件的路径：

```
splunk add licenses $SPLUNK_HOME/etc/licenses/enterprise/enterprise.lic
```

要列出许可证堆叠中的所有许可证：

```
splunk list licenses
```

splunk list 命令还显示每个许可证的属性，包括启用的功能 (features)、所属的许可证组和堆叠 (group_id, stack_id)、允许的索引配额 (quota) 以及对每个许可证均唯一的许可证密钥 (license_hash)。

如果许可证期满，您还可以将其从许可证堆叠中删除。要从许可证堆叠中删除许可证，指定许可证的哈希值：

```
splunk remove licenses BM+S8VetLnQEb1F+5Gwx9rR4M4Y91AkIE=781882C56833F36D
```

管理许可证池

您可以用许可证堆叠中的许可证新建许可证池（如果您有 Enterprise 许可证）。一个许可证堆叠可以划分为多个许可证池。多个许可证从服务器可以共享池的配额。

要查看所有许可证堆叠中的所有许可证池：

```
splunk list licenser-pools
```

要将某个许可证池添加到堆叠，您需要：命名该池、指定您要添加到的堆叠，并指定要分配到该池的索引量：

```
splunk add licenser-pools pool01 -quota 10mb -slaves guid1,guid2 -stack_id enterprise
```

您还可以指定该池和作为其成员的许可证从服务器的描述（均为可选）。

您可以编辑许可证池的描述、索引配额和许可证从服务器。例如，在之前的示例中假设您新建了 pool01：

```
splunk edit licenser-pools pool01 -description "Test" -quota 15mb -slaves guid3,guid4 -append_slaves true
```

这样是添加对池的描述 ("Test")，将配额从 10MB 更改为 15MB，向该池添加许可证从服务器 guid3 和 guid4 池。在之前的示例中添加的 guid1 和 guid2 从服务器可继续访问池。

要从堆叠中删除许可证池：

```
splunk remove licenser-pools pool01
```

管理许可证从服务器

许可证从服务器可以访问一个或多个许可证池中的许可证配额。许可证主服务器控制访问权限。

要列出所有联系过许可证主服务器的许可证从服务器：

```
splunk list licenser-slaves
```

要列出本地许可证从服务器的所有属性：

```
splunk list licenser-localslave
```

要添加许可证从服务器，编辑该本地许可证从服务器节点的属性（指定许可证主服务器实例的 URI 或 'self'）：

```
splunk edit licenser-localslave -master_uri 'https://master:port'
```

监视许可证状态

您可以使用 `splunk list` 命令来查看有关许可证状态的消息（告警或警告）。

```
splunk list licenser-messages
```

关于许可证违规

许可证违规会在一系列许可证警告后出现。当您超过您的许可证所允许的每日最大索引量时，就会收到许可证警告。如果您收到多个许可证警告，并且已超出许可证的许可证警告限制，则会收到许可证违规。

什么是许可证警告？

当您超过您的许可证所允许的每日最大索引量时，就会收到许可证警告。触发条件如下：

- 对于每日索引量，系统会基于**许可证主服务器**上的时钟测量从前一天午夜到第二天午夜的数据。
- 如果您在任意一个日历日超过日许可量，系统就会生成一个许可证警告。
- 如果您收到许可证警告，您可以利用午夜前的这段时间（以许可证主服务器上的时钟为准）解决问题，否则该警告将计入许可证允许的警告总数中。有关出现警告时如何处理的指导，请参阅“纠正许可证警告”。

许可证警告是什么样子的？

许可证警告在 Splunk Web 中显示为管理消息。单击消息中的链接可转到**许可授权**页面，相应警告显示在**告警**下方。

以下为生成许可证警告的一些条件：

- 许可证池达到每日许可量上限时。
- 许可证堆栈达到每日许可量上限时。
- 许可证从服务器无法与许可证主服务器进行通信时。要解决通信问题，请参阅“由于许可证主服务器和从服务器之间的问题中断导致违规”。

许可证违规期间发生了什么？

如果收到的警告数量超出许可证允许的警告总数时，就会发生许可证违规。许可证违规条件取决于许可证类型。

以下是许可证违规期间索引和搜索功能发生的变化：

- Splunk Enterprise 会继续对数据建立索引。
- 违规期间禁止使用搜索功能。此限制包括计划的报表和告警。
- 仍可以搜索内部索引。您可以使用监视控制台或针对 `_internal` 运行搜索以诊断许可证问题。

下表是按 Splunk Enterprise 许可证类型列出的许可证违规条件：

许可证	违规条件

Splunk Enterprise 许可证	目前，每日许可数据量为 100 GB 或更高的 Enterprise 许可证堆栈不会出现违规。 如果您的许可证堆栈允许的每日许可数据量少于 100 GB，并且在连续 60 天的时段内产生了 45 个许可证警告，则您对许可证就进行了违规使用。如果该许可证堆栈分为多个池，并且某个池在连续 60 天的时段内生成了 45 个警告，将会禁用该池及其许可证池成员的搜索功能。如果其余许可证池的使用量未超过其分配的许可量，则其他池及其成员仍保持可搜索状态。要重新获得搜索功能，请向 Splunk 销售人员申请重置许可证。
Splunk Enterprise Infrastructure 许可证	当前，基于 vCPU 使用情况的 Enterprise 许可证不会出现违规。
Splunk Enterprise Trial 许可证	如果系统在连续的 30 天的时段内生成了 5 个或更多告警，则您对许可证就进行了违规使用。Splunk Enterprise 会继续为您的数据建立索引，但是您无法使用搜索功能。这些警告会持续 14 天。无重置许可证选项。
开发/测试许可证	如果系统在连续的 30 天的时段内生成了 5 个或更多告警，则您对许可证就进行了违规使用。Splunk Enterprise 会继续为您的数据建立索引，但是您无法使用搜索功能。这些警告会持续 14 天。要启用搜索，请使用“Splunk 客户的个性化开发/测试许可证”中的申请表请求重置许可证。
开发人员许可证	如果系统在连续的 30 天的时段内生成了 5 个或更多告警，则您对许可证就进行了违规使用。Splunk Enterprise 会继续为您的数据建立索引，但是您无法使用搜索功能。这些警告会持续 14 天。要启用搜索，请使用“Splunk 开发人员许可证注册”中的申请表请求重置许可证。
Free 许可证	如果系统在连续的 30 天的时段内生成了 3 个或更多告警，则您对许可证就进行了违规使用。Splunk Enterprise 会继续为您的数据建立索引，但是您无法使用搜索功能。这些警告会持续 14 天。无重置许可证选项。

由于许可证主服务器和从服务器之间的问题中断导致违规

许可证从服务器每分钟都将其许可量使用情况传输给许可证主服务器。如果许可证从服务器在 72 小时或更长的时间内无法连接许可证主服务器，则该从服务器出现违规，因此搜索功能会被禁用。出现违规时，仍可为数据建立索引。用户无法在出现违规的从服务器上执行搜索操作，直到该从服务器与许可证主服务器重新建立连接为止。

要确定许可证从服务器是否无法访问许可证主服务器，请在 _internal 索引或许可证从服务器的 splunkd.log 中搜索错误事件：

```
index=_internal LMTracker error "failed to send rows" OR "unable to connect"
```

避免许可证警告

为避免许可证警告，请监视一段时间内的许可证使用情况，并确保您有足够的许可量来支持您日常的许可证使用：

- 在许可证主服务器上使用许可证使用情况报表视图来故障排除索引量。请参阅“关于 Splunk Enterprise 的许可证使用情况报表视图”。
- 在监视控制台上启用告警以监视许可证使用情况。请参阅*《监视 Splunk Enterprise》*中的“平台告警”。

纠正许可证警告

如果您在午夜之前收到要求您纠正许可证警告的消息，则表示您已经超出了当天的配额。发出此警告是为了让您了解许可证的使用情况，并让您有时间更改或更新许可证配置。每日许可量配额会于午夜在许可证主服务器上重置，届时未清除的警告会记录为许可证警告。对于大多数许可证来说，只有当警告达到一定的有限数量时才会出现违规。

一旦为数据建立索引，就无法更改基于许可证记录的卷。您无法为数据取消索引。或者，您需要用以下方式之一来获得额外的许可量：

- 如果您有另一个许可证池有多余的许可量，请重新配置您的许可证池，并将许可证容量移到需要的地方。
- 购买更多许可证并将其添加到许可证堆栈和池中。

如果以上选项您都无法使用，则可以分析索引量并进行适当更改，以减少使用的许可量比平时更多的数据源。要了解哪些数据源占用的许可证配额最大，请查看许可证使用情况报表视图。

一旦您识别出使用了大量许可量的数据源，就可以确定如何管理这些数据以纠正许可证警告：

- 判断这是否是一次性数据引入问题。例如，在应用日志中启用了调试日志记录以便解决某个问题，但是第二天会重置日志记录级别。
- 根据基础设施的变化判断这是否是新的许可证平均使用量。例如，一个新的应用或服务器群集上线，而相关团队在引入数据前没有知会您。
- 确定是否可以过滤和丢弃某些传入数据。有关丢弃过滤器的示例，请参阅*《转发数据》*手册中的“路由和过滤数据”。

许可证使用情况报表视图

关于 Splunk Enterprise 的许可证使用情况报表视图

如果想查看和监视一段时间内的许可证容量使用情况和索引量，请使用许可证使用情况报表。许可证主服务器和监视控制台角色中都有这些报表。要了解许可证以及许可证堆栈和池，请参阅“分配许可量”。

访问许可证使用情况报表视图

在许可证主服务器上：

1. 导航到**设置** > **许可证**。
2. 选择**使用情况报表**。

在监视控制台上：

1. 导航至**设置** > **监视控制台**。
2. 导航至**索引** > **许可证使用情况**。
3. 选择**许可证使用情况**。

许可证使用情况 - 今天

报表中的这些面板显示了当天的许可证使用情况状态以及警告。这些面板包括：

面板名称	描述
当天的许可证使用情况 (GB)	当天的许可证使用情况以及所有池中的每日许可证总配额。
各池当天的许可证使用情况	当天的许可证使用情况以及各池的每日许可证总配额。
各池当天使用的每日许可证配额的百分比	各池使用的当天许可证配额的百分比。百分比以对数标度进行显示。
池使用情况警告	显示各池在过去 30 天或自应用了最后一个许可证重设密钥以来收到的所有警告。请参阅“关于许可证违规”。
从服务器使用情况警告	每个许可证从服务器的池成员身份、警告次数和违规次数。

许可证使用情况 - 前 30 天

报表中的这些面板显示了许可证使用情况和警告的历史数据。该报表使用从 license_usage.log 中收集的数据，消息类型为 type=RolloverSummary。这些代表针对所有对等节点或从节点记录的每日总数。

如果许可证主服务器在表示当地午夜的时间段内关闭，它不会为当天生成 RolloverSummary 事件，因此您不会在这些面板中看到当天的数据。

如果您的 Splunk Enterprise 许可证堆栈小于 100GB，并且可以有条件地堆叠许可证，则“许可证使用情况”报表将更改为“前 60 天”。

这些面板包括：

面板名称	拆分依据	描述
每日许可证使用情况	是：池、索引器、源类型、主机、源、索引。	一段时间内的每日总许可证使用情况。可使用拆分选项进行排序。
已使用的每日许可证配额的百分比	是：池、索引器、源类型、主机、源、索引。	一段时间内已使用的每日许可证配额的百分比。可使用拆分选项进行排序。
每日平均和峰值数据量	是：池、索引器、源类型、主机、源、索引。	一段时间内的平均和峰值许可证使用情况。可使用拆分选项进行排序。

这些面板中的可视化限制为您可以按主机、数据来源、来源类型、索引、索引器或池拆分的每个字段绘制的值的数量。如果其

中任何一个字段有 10 个以上不同值，第 10 个之后的值将被标记为“其他”。

通过加速报表改善性能

默认情况下，若要使用具有多个值的拆分字段生成历史报表，则系统需要一些时间来运行。如果您计划定期运行报表，则可以加快报表的速度。

针对您计划查看许可情况报表的实例上启用报表加速：许可证主服务器或监视控制台。

当您对源类型、主机、源或索引使用拆分选项时；系统将提示您启用报表加速。您可以在**设置 > 搜索、报表和告警 > 许可证使用数据立方体**中查看用于加速许可情况搜索的选项和时间表。在首次选择报表加速后，它可能会花费长达 10 分钟的时间来开始。在历史数据完成汇总之后，这些数据会使用计划报表保持最新。请参阅*《报表手册》*中的“加速报表”。

压缩字段

每个许可证从服务器会定期按数据来源、来源类型、主机和索引，向许可证主服务器报告已编入索引的数据状态。如果不同元组（数据来源、来源类型、主机、索引）的数量超过配置阈值，主机和来源值会自动压缩。这样做是为了降低内存使用率并防止大量日志事件。压缩时，许可证使用情况报表会发出警告消息。由于主机和来源字段已压缩，因此只有按来源类型和索引拆分选项才能提供完整的报表。

压缩阈值可以配置。增大该值会增加内存使用率。参阅 server.conf 中的 `squash_threshold` 设置。

要在没有压缩的情况下查看更详细信息，可搜索 `per_host_thruput` 的 metrics.log。

在您的许可证使用情况报表中识别指标数据

您可以选择“许可证使用情况 - 前 30 天”并按索引拆分，以此方式识别指标数据。

设置告警

您可以将任何许可证使用情况报表视图面板变成一个告警。例如，假如您要针对许可证使用情况达到配额的 80% 设置一个告警。

1. 前往**今天使用的每日许可证配额的百分比**面板。
2. 单击面板左下角的“在搜索中打开”。
3. 附加 `| where '% used' > 80`
4. 选择**另存为 > 告警**，并遵循告警向导执行操作。

Splunk Enterprise 附带几项您可以启用的预配置告警。请参阅*《监视 Splunk Enterprise》*中的“启用和配置平台告警”。

故障排除许可证使用情况报表视图

“过去 30 天”选项卡中没有结果

如果该面板为空，则作为许可证主服务器 (LM) 的 Splunk Enterprise 实例未找到任何许可事件。这些事件记录在 license_usage.log 文件中，并会引入并存储在 `internal` 索引中。以下是可能导致问题的一些场景：

- 许可证主服务器实例未配置为搜索索引器或群集对等节点。有关配置许可证主服务器以搜索索引器或对等节点的说明，请参阅“添加搜索对等节点到搜索头”。
- 许可证主服务器实例已停止引入其本地 Splunk Enterprise 日志文件。使用 `btool` 命令检查默认的 Splunk Enterprise 日志监视器 `[monitor://$SPLUNK_HOME/var/log/splunk]`，并验证其是否已启用。有关 `btool` 的使用示例，请参阅“使用 btool 排除配置问题”。

如果许可证主服务器在午夜进行许可协调时不可用，则数据中可能会出现间隙。

单个来源类型许可证限制

有单个来源类型许可证和 Enterprise 许可证的实例显示的信息并不总是准确信息。

管理应用键值存储

有关应用键值存储

应用键值存储（或 KV 存储）提供在 Splunk 应用内保存和检索数据的方法，从而可以管理和维护应用程序的状态。

以下是 Splunk 应用可能使用 KV 存储的一些方法：

- 跟踪事件查看系统（将问题从一个用户移动到另一个用户）中的工作流。
- 保留用户提供的环境资产列表。
- 控制任务队列。
- 当用户与应用进行交互时，通过存储用户或应用程序状态管理 UI 会话。
- 存储用户元数据。
- 通过 Splunk 或外部数据存储从搜索查询缓存结果。
- 为模块化输入存储检查点数据。

有关使用 KV 存储的信息，请参阅 Splunk 应用开发者的应用键值存储文档。

KV 存储如何使用您的部署

KV 存储将数据存储为集合中的键值对。主要概念如下：

- **集合**是数据的容器，与数据库表类似。集合存在于给定应用的上下文中。
- **记录**包含数据的每个条目，与数据库表中的行类似。
- **字段**对应键名称，与数据库表中的列类似。字段将数据值包含为 JSON 文件。尽管不需要，您还可强制限定字段值的数据类型（数量、布尔、时间和字符串）。
- **_key** 为包含每个记录的唯一 ID 的预留字段。如果您未显式指定 _key 值，则应用会自动生成一个值。
- **_user** 为包含每个记录的用户 ID 的预留字段。此字段不可以被覆盖。
- **加速**通过使包含加速字段的搜索更快的返回来改进搜索性能。加速在易于遍历的表单中存储集合数据的一小部分。

KV 存储驻留在搜索头的文件。

在搜索头群集中，如果任何节点收到写入，则 KV 存储会将写入委派到 **KV 存储管理员**。但是，KV 存储保持本地读取。

系统要求

KV 存储在所有 Splunk Enterprise 64 位构建中可用并被支持。它在 32 位 Splunk Enterprise 构建中不可用。KV 存储在通用转发器中也不可用。请参阅 Splunk Enterprise 系统要求。

默认情况下，KV 存储使用端口 8191。您可以更改 server.conf 的 [kvstore] 段落中的端口号。有关 Splunk Enterprise 使用的其他端口的信息，请参阅*《分布式搜索手册》*中的“搜索头群集的系统要求和其他部署注意事项”。

有关您可以在 KV 存储中更改的其他配置的信息，请参阅 server.conf.spec 中的“KV 存储配置”部分。

关于 Splunk FIPS

要通过 KV 存储使用 FIPS，请参阅 server.conf.spec 中的“KV 存储配置”部分。

如果未启用 Splunk FIPS，这些设置会被忽略。

如果您启用了 FIPS 但未提供需要的设置（caCertFile、sslKeysPath 和 sslKeysPassword），那么 KV 存储不会运行。请在 splunkd.log 中和在执行 splunk start 的控制台上查找错误消息。

决定您的应用是否使用 KV 存储

默认情况下，KV 存储在 Splunk Enterprise 6.2+ 上启用。

使用 KV 存储的应用通常具有在 $SPLUNK_HOME/etc/apps/<app name>/default 中定义的 collections.conf。另外，transforms.conf 将引用具有 external_type = kvstore 的集合

使用 KV 存储

要使用 KV 存储：

1. 使用配置文件或 REST API 新建集合并选择定义具有数据类型的字段列表。
2. 使用搜索查找命令和 Splunk REST API 执行新建-读取-更新-删除（CRUD）操作。

3. 使用 REST API 管理集合。

在 Splunk Enterprise 部署上监视 KV 存储

您可通过监视控制台上的两个视图监视 KV 存储性能。一个视图可供查看整个部署。其他视图可提供有关每个搜索头上 KV 存储操作的详细信息。请参阅*《监视 Splunk Enterprise》* 中的“KV 存储仪表板”。

重新同步 KV 存储

KV 存储成员用所有的写入操作转换数据失败时，KV 存储成员可能是旧成员。要解决这个问题，您必须重新同步成员。

在将 Splunk Enterprise 降级到 7.1 或更早的版本之前，您必须使用 REST API 重新同步 KV 存储。

辨别旧的 KV 存储成员

您可以用命令行检查 KV 存储状态。

1. 登录任何 KV 存储成员的 shell。
2. 导航到 Splunk Enterprise 安装目录中的 `bin` 子目录。
3. 键入 `./splunk show kvstore-status`。命令行返回您登录的 KV 存储成员摘要，以及 KV 存储群集中每个其他成员的相关信息。
4. 查看 `replicationStatus` 字段，标识有“KV 存储管理员”或“非管理员的 KV 存储成员”值的任何成员。

重新同步旧 KV 存储成员

如果旧成员超过一半，您可以重新建立群集或从其中一个成员重新同步群集。有关从备份恢复的详细信息，请参阅“备份 KV 存储”。

要从其中一个成员重新同步群集，请按照以下步骤进行操作。这个程序会在现有的 KV 存储群集中的所有成员重新同步当前成员（或 -source sourceId 中指定的成员）的所有数据之后，触发 KV 存储群集的重建。重新同步 KV 存储群集的命令只能从用作搜索头群集管理员的节点调用。

1. 确定哪个节点目前是搜索头群集管理员。使用 CLI 命令 `splunk show shcluster-status`。
2. 登录搜索头群集管理员节点上的 shell。
3. 运行命令 `splunk resync kvstore [-source sourceId]` 。如果想要将非搜索头群集管理员成员用作数据来源，则数据来源为可选参数。`SourceId` 是指您想要使用的搜索头成员 GUID。
4. 输入您的管理员登录凭证。
5. 等待命令行上显示确认消息。
6. 使用 `splunk show kvstore-status` 命令验证群集是否已重新同步。

如果旧成员少于一半，请逐个重新同步每个成员。

1. 停止含有旧 KV 存储成员的搜索头。
2. 运行命令 `splunk clean kvstore --local` 。
3. 重新启动搜索头。这会触发来自其他 KV 存储成员的初始同步。
4. 运行命令 `splunk show kvstore-status` 验证同步。

增加操作日志大小防止旧成员

如果您发现因为 KV 存储成员频繁转换到旧模式（每天或甚至可能每小时）而频繁重新同步 KV 存储，这表明应用或用户正在将很多数据写入到 KV 存储且操作日志太小。增加操作日志（或 oplog）大小可能有帮助。

初始同步之后，非管理员 KV 存储成员不再访问管理员集合。相反，KV 存储集合中的新条目会插入操作日志。成员从这里此复制新插入的数据。操作日志达到其分配（默认为 1 Gb）之后，会覆盖 oplog 的开头。考虑与分配大小相近的查找。KV 存储仅在大部分成员访问数据之后才回滚数据（并从 oplog 开始覆盖），例如 KV 存储群集中五分之三的成员。但是发生上述情况后，KV 存储回滚，所以小部分成员（本示例中剩余的一半成员）无法访问 oplog 的开头。这样少数成员就变成了旧成员且需要重新同步，这表明要读取整个集合（这可能比操作日志还要大）。

要确定是否增加操作日志大小，请访问监视控制台 **KV 存储：实例**仪表板或按以下方式使用命令行：

1. 通过从任意群集成员运行 `splunk show shcluster-status` 来确定当前作为管理员的搜索头群集成员。
2. 通过管理员运行 `splunk show kvstore-status`。
3. 比较 oplog 开始和结束时间戳。开始是最早的变化，结束是最新的变化。如果差异在一分钟左右，您可能应该要增加操作日志大小。

尽管过小的操作日志可能带来明显的负面影响（如成员变成旧成员），将操作日志大小设置超出您所需范围也未必是理想之选。无论实际写入日志的数据有多少，KV 存储会立即占据您分配的完整日志大小。读取 oplog 也会占用一点 RAM，即使

oplog 比较松散。用 Splunk 支持确定您的 KV 存储使用的合适的操作日志大小。默认情况下，操作日志大小为 1 GB。

要增加日志大小：

1. 通过从任意群集成员运行 splunk show shcluster-status 来确定当前作为管理员的搜索头群集成员。
2. 通过管理员编辑位于 $SPLUNK_HOME/etc/system/local/ 的 server.conf 文件。提高 [kvstore] 段落中的 oplogSize 设置。默认值为 1000（单位为 MB）。
3. 重新启动管理员。
4. 对于各其他群集成员：
    1. 停止成员。
    2. 运行 splunk clean kvstore --local。
    3. 重新启动成员。这会触发来自其他 KV 存储成员的初始同步。
    4. 运行 splunk show kvstore-status 以验证同步情况。

降级 Splunk Enterprise

在将 Splunk Enterprise 降级到 7.1 或更早版本之前，请用以下命令重新同步 KV 存储：

```
curl -u username:password -XPOST https://<splunk>:8089/services/kvstore/resync/resync?featureCompatibilityVersion=3.4
```

如果您使用此命令并在降级之前重新启动 Splunk，请在降级前重新运行此命令。

备份和恢复 KV 存储

备份 KV 存储并从备份中恢复。定期从运行状况良好的环境中备份，这样出现灾难或您要为群集添加搜索头时可以从备份中恢复。您还可以在迁移到其他机器之前进行备份。有关更多信息，请参阅*《安装手册》*中的“将 Splunk Enterprise 实例从一个物理计算机迁移到另一个”。

确保熟悉标准的备份和恢复工具以及您组织使用的程序。

根据您的部署类型，您可以对 KV 存储执行不同的任务，包括检查状态、进行备份以及将 KV 存储恢复到现有或新的搜索头或搜索头集群。使用下面的图表来决定使用哪种方法。

任务	部署类型	选择此任务的原因
检查 KV 存储状态	任意选项	在进行备份或恢复 KV 存储之前，请检查该 KV 存储是否已准备就绪。您还可以检查正在进行的备份和恢复。
以时间点一致性的方式备份和恢复	单实例	这种方法可保证一致性。系统会在备份过程中捕获对 KV 存储的所有更改，并且在恢复过程中阻止所有更改。 但是，您必须确保所有搜索（特别是实时搜索）在恢复 KV 存储之前已经完成，并且您不能备份特定的应用或集合，只能备份整个 KV 存储。此方法仅适用于单实例部署。
不保证一致性的备份和恢复	任意选项	这种方法不能保证一致性。并不是总能捕获备份期间所做的更改。此方法适用于所有类型的部署，您可以选择备份和恢复特定应用或集合，或整个 KV 存储。

检查 KV 存储状态

要检查任何部署类型上 KV 存储的状态，请使用 show kvstore-status 命令：

```
./splunk show kvstore-status
```

backupRestoreStatus 字段和 status 字段指示 KV 存储的状态。backupRestoreStatus 字段指示节点执行备份的准备情况。status 字段指示存储引擎的状态。两者都必须处于就绪状态才能进行备份。

备份和恢复时间点一致的 KV 存储

使用以下步骤备份 KV 存储，准备恢复 KV 存储数据，然后恢复 KV 存储数据。此方法仅适用于单个搜索头部署。

备份 KV 存储

完成以下步骤，以时间点一致性的方式备份 KV 存储。

1. 在 CLI 中，运行 splunk show kvstore-status 命令。
2. 确保 backupRestoreStatus 字段和 status 字段都处于就绪状态。
3. 如果您正在运行任何使用带有默认 append=f 参数的 outputlookup 的搜索，请在进行备份之前结束它们或让它们完成，否

则备份将失败。

4. **可选：**为您的备份目录创建一个单独的分区，以便在 $SPLUNK_DB/kvstore 目录失败时保留备份。
5. 使用搜索头中的 splunk backup kvstore -pointInTime true 命令。此命令将在 $SPLUNK_DB/kvstorebackup 目录中创建归档文件。该命令的 -pointInTime true 部分需要进行一致性备份。

要自定义备份，请检查备份命令的完整参数列表：

```
./splunk backup kvstore [-pointInTime <true|false>] [-cancel <true|false>] [-parallelCollections <num>] [-archiveName
<archive>]
```

参数	描述
-pointInTime	默认为 false。要进行一致备份，请将其设置为 true。
-cancel	默认为 false。将该参数设置为 true 以取消正在进行的备份。
-parallelCollections	默认为 1。提高此数字以增加要并行备份的集合数量。
-archiveName	默认为 kvdump_<epoch>.tar.gz。设置以更改备份文件的名称。

准备恢复 KV 存储数据

接下来，完成以下步骤以准备恢复 KV 存储数据：

1. 确保 KV 存储集合 collections.conf 文件存在于将恢复 KV 存储的 Splunk 实例上。如果您在恢复 KV 存储数据之后创建集合 collections.conf，则 KV 存储数据将会丢失。
2. 确保您的备份归档文件存在于 $SPLUNK_DB/kvstorebackup 目录中。
3. 检查是否从您正在恢复的同一集合中新建了备份归档文件。您无法将备份恢复到其他集合。

您只能用以一致性方式进行的备份文件恢复具有一致性的 KV 存储。以一致性方式进行的备份使用了备份命令中的 -pointInTime true 参数。通过使用 ./splunk show kvstore -archiveName <archive file></archive> 命令来检查备份文件是否是以一致性方式进行的。

将 KV 存储数据恢复到现有的单一搜索头部署中

现在完成以下步骤来恢复 KV 存储数据：

1. 确保所有搜索都完整，尤其是实时搜索。为确保计划程序不会启动使用 KV 存储的搜索，您还可以暂时禁用计划程序。
2. 使用 splunk enable kvstore-maintenance-mode 命令启用维护模式。启用维护模式后，您将无法对 KV 存储进行任何更改，并且尝试修改 KV 存储内容的搜索将失败。
3. 使用 splunk restore kvstore -pointInTime true -archiveName <archive> 命令恢复 KV 存储数据。
4. 使用 splunk show kvstore-status 命令验证恢复过程是否完成。
5. 使用 splunk disable kvstore-maintenance-mode 命令禁用维护模式。如果您禁用了计划程序，请立即启用它。

要自定义恢复，请检查恢复命令的完整参数列表：

```
./splunk restore kvstore [-pointInTime <true|false>] -archiveName <archive> [-parallelCollection <num>] [-
insertionsWorkersPerCollection <num>] [-cancel]
```

参数	描述
-pointInTime	默认为 false。要从具有一致性的备份中恢复，请将参数设置为 true。
-cancel	默认为 false。将该参数设置为 true 以取消正在进行的恢复。
-parallelCollections	默认为 1。提高此数字以增加要并行恢复的集合数量，从而加快存储速度。
-archiveName	**必填**。指定要使用的备份文件的名称。
-insertionsWorkersPerCollection	默认为 1。提高此数字以增加每个集合的插入工作器的数量，从而加快恢复速度。

在不保证一致性的情况下备份和恢复 KV 存储

使用以下步骤备份 KV 存储，准备恢复 KV 存储数据，然后将 KV 存储数据恢复到现有部署或新部署。此方法适用于单个搜索头或集群部署。

备份 KV 存储

完成以下步骤以备份 KV 存储：

1. 在 CLI 中，运行 splunk show kvstore-status 命令。
2. 在进行备份之前，确保 backupRestoreStatus 字段和 status 字段都处于 ready 状态。
3. **可选**：为您的备份目录创建一个单独的分区，以便在 $SPLUNK_DB/kvstore 目录失败时保留备份。
4. 使用搜索头中的 splunk backup kvstore 命令。或者，在搜索头集群上，从具有最新数据的节点运行该命令。此命令将在 $SPLUNK_DB/kvstorebackup 目录中创建归档文件。

   或者，您可以添加以下参数来指定备份归档文件的名称，或指定要备份的特定集合或应用，而不是整个 KV 存储：
   ./splunk backup kvstore [-archiveName <archive>] [-collectionName <collection>] [-appName <app>]

准备恢复 KV 存储数据

完成以下步骤以准备恢复 KV 存储数据：

1. 确保 KV 存储集合 collections.conf 文件存在于将恢复 KV 存储的 Splunk 实例上。如果您在恢复 KV 存储数据之后创建集合 collections.conf，则 KV 存储数据将会丢失。
2. 确保您的备份归档文件存在于 $SPLUNK_DB/kvstorebackup 目录中。在集群环境中，确保它位于要从中恢复的节点上的此目录中。您只需要从一个节点进行恢复。恢复会自动跨所有其他节点进行复制。
3. 检查是否从您正在恢复的同一集合中新建了备份归档文件。您无法将备份恢复到其他集合。

将 KV 存储数据恢复到现有搜索头群集中

完成以下步骤将 KV 存储数据恢复到现有搜索头群集中：

1. 使用 splunk restore kvstore 命令恢复 KV 存储数据。或者，您可以添加以下参数来指定备份归档文件的名称，或指定要恢复的特定集合或应用，而不是整个 KV 存储： ./splunk restore kvstore [-archiveName <archive>] [-collectionName <collection>] [-appName <app>]
2. 通过运行 splunk show kvstore-status 命令验证恢复过程是否完成。

将 KV 存储数据恢复到新搜索头群集上

完成以下步骤以使用新的 Splunk Enterprise 实例新建搜索头群集。只有在不使用 -pointInTime true 参数的情况下从集群部署中进行备份时，此过程才有效。

1. 从您进行备份的当前搜索头集群中的同一搜索头上备份 KV 存储数据。
2. 在将存在于新搜索头群集环境中的该搜索头上，使用和您正在恢复的 KV 存储数据相同的集合名称新建 KV 存储集合。
3. 初始化搜索头群集 replication_factor=1
4. 使用 splunk restore kvstore 命令将 KV 存储数据恢复到新搜索头群集上。
5. 从 CLI 运行以下命令： splunk clean kvstore --cluster
6. 通过新搜索头启动 Splunk 实例和引导程序。
7. 将 KV 存储恢复到新搜索头之后，添加其他新搜索头群集成员。
8. 完成之后，将每个搜索头上的 replication_factor 更改为所需的复制因子数。
9. 执行滚动重新启动部署。

迁移 KV 存储的存储引擎

从 Splunk Enterprise 版本 8.1 开始，您可以将 KV 存储的存储引擎从内存映射 (MMAP) 存储引擎迁移到 WiredTiger 存储引擎。将您的 KV 存储迁移到 WiredTiger 存储引擎，以显著减少所需的存储量并提高性能。

使用下表选择最适合您的迁移路径。迁移取决于您是否已完成 Splunk Enterprise 版本 8.1 的安装或升级到 Splunk Enterprise 版本 8.1，以及是使用单实例部署还是群集部署。

如果 KV 存储的单个实例位于搜索头、群集管理器或任何索引器节点上，请完成单实例 KV 存储部署的步骤。如果整个搜索头群集中有多个 KV 存储节点，则请完成群集 KV 存储部署的步骤。

迁移 KV 存储的存储引擎所花费的时间与 KV 存储中的总数据量成正比。

当前版本	KV 存储部署	说明
无，新安装版本 8.1	任意选项	使用 WiredTiger 存储引擎安装 Splunk Enterprise 8.1
8.0 或更低版本	单实例	在单实例部署中升级到 Splunk Enterprise 8.1 的过程中迁移 KV 存储
8.1 或更高版本	单实例	在单实例部署中升级到 Splunk Enterprise 8.1 之后迁移 KV 存储
8.0 或更低版本	群集	请完成以下步骤： 1. 升级为 Splunk Enterprise 8.1。请参见*《安装手册》*中的“如何升级 Splunk Enterprise”。 2. 在群集部署中升级到 Splunk Enterprise 8.1 之后迁移 KV 存储。

8.1 或更高版本	群集	在群集部署中升级到 Splunk Enterprise 8.1 之后迁移 KV 存储

使用 WiredTiger 存储引擎安装 Splunk Enterprise 8.1

如果要全新安装 Splunk Enterprise 8.1，而不是从旧版本升级，请完成以下步骤以使用 WiredTiger 存储引擎。

1. 下载并安装 Splunk Enterprise 8.1 版，但不要启动 Splunk Enterprise。
2. 打开 *nix 平台中 `$SPLUNK_HOME/etc/system/local/` 目录下，或 Windows 中 `%SPLUNK_HOME\etc\system\local\` 目录下的 server.conf。
3. 在 `[kvstore]` 段落中，将存储引擎设置更改为 `storageEngine=wiredTiger`。如果文件未包含 `[kvstore]` 段落，请将以下行粘贴到文件中。
   ```
   [kvstore]
   storageEngine=wiredTiger
   ```
   请勿对 `[kvstore]` 段落中的存储引擎设置进行任何其他更改。如果 server.conf 中指定的存储引擎与 Splunk Enterprise 使用的存储引擎不匹配，则 KV 存储不会启动。
4. 保存 server.conf 文件。
5. 启动 Splunk Enterprise。
6. 要检查您是否正在使用 WiredTiger，请使用以下命令确认状态为就绪，并且存储引擎为 WiredTiger。在群集 KV 存储部署中，针对每个群集成员使用以下命令：
   ```
   splunk show kvstore-status
   ```

有关安装 Splunk Enterprise 的信息，请参阅*《安装手册》*中的“安装概述”。

在单实例部署中升级到 Splunk Enterprise 8.1 的过程中迁移 KV 存储

当您准备使用单实例 KV 存储将 Splunk Enterprise 8.0 或更低版本的部署升级到版本 8.1 时，可以同时将 KV 存储迁移到 WiredTiger 存储引擎。迁移过程会将数据导出到新目录，使用 WiredTiger 重新启动存储引擎，然后还原之前导出的数据。

在迁移过程中，将 KV 存储的备份保存到 *nix 平台的 `$SPLUNK_DB/kvstore/old_db` 目录或 Windows 平台的 `%SPLUNK_DB%\kvstore\old_db` 目录中。可用存储空间必须为 KV 存储目录的两倍才能完成迁移。

1. 打开 *nix 平台中 `$SPLUNK_HOME/etc/system/local/` 目录下，或 Windows 平台中 `%SPLUNK_HOME%\etc\system\local\` 目录下的 server.conf。
2. 编辑 `storageEngineMigration` 设置以匹配以下示例：
   ```
   [kvstore]
   storageEngineMigration=true
   ```
3. 保存 server.conf 文件。
4. 开始升级到 Splunk Enterprise 8.1。有关升级到 Splunk Enterprise 8.1 的详细信息，请参阅*《安装手册》*中的“如何升级 Splunk Enterprise”。
5. 当提示您选择是否执行 KV 存储迁移时，请选择 `yes`。如果在开始升级 Splunk Enterprise 时使用 `--answer-yes` 选项，则 KV 存储迁移会在升级过程中自动完成，不会出现提示。
6. 要检查您是否已完成迁移，请使用以下命令确认状态为就绪，并且存储引擎为 WiredTiger：
   ```
   splunk show kvstore-status
   ```
7. （可选）在确认迁移已成功完成之后，请删除 *nix 平台中 `$SPLUNK_DB/kvstore/old_db` 目录下，或 Windows 平台中 `%SPLUNK_DB%\kvstore\old_db` 目录下的 KV 存储备份数据。

在单实例部署中升级到 Splunk Enterprise 8.1 之后迁移 KV 存储

如果当前在 Splunk Enterprise 8.1 中使用单实例 KV 存储，则可以将 KV 存储迁移到 WiredTiger 存储引擎。迁移过程会将数据导出到新目录，使用已启用的 WiredTiger 重新启动存储引擎，然后还原之前导出的数据。

在迁移过程中，将 KV 存储的备份保存到 *nix 平台的 `$SPLUNK_DB/kvstore/old_db` 目录或 Windows 平台的 `%SPLUNK_DB%\kvstore\old_db` 目录中。可用存储空间必须为 KV 存储目录的两倍才能完成迁移。

1. 停止 Splunk Enterprise。不要使用 `-f` 选项。
2. 打开 `$SPLUNK_HOME/etc/system/local/` 目录中的 server.conf。
3. 编辑 `storageEngineMigration` 设置以匹配以下示例：
   ```
   [kvstore]
   storageEngineMigration=true
   ```
4. 保存 server.conf 文件。
5. 要开始迁移，请使用以下命令：

```
splunk migrate kvstore-storage-engine --target-engine wiredTiger
```

要减少迁移所需的存储空间，请使用 `--enable-compression` 选项来压缩备份数据。此选项会导致 CPU 使用率略微升高。

6. 查看 *nix 平台中的 `$SPLUNK_HOME/var/log/splunk/mongod.log` 文件或 Windows 平台中的 `%SPLUNK_HOME\var\log\splunk\mongod.log` 文件，了解迁移的状态。
7. 确认迁移成功后，再次启动 Splunk Enterprise。
8. （可选）删除 *nix 平台中 `$SPLUNK_DB/kvstore/old_db` 目录下，或 Windows 平台中 `%SPLUNK_DB%\kvstore\old_db` 目录下的 KV 存储备份数据。

在群集部署中升级到 Splunk Enterprise 8.1 之后迁移 KV 存储

如果当前在 Splunk Enterprise 8.1 中使用群集 KV 存储，则可以将 KV 存储迁移到 WiredTiger 存储引擎。

如果开始迁移时您在 KV 存储节点上运行了搜索，则不管是什么搜索都可能会失败。开始迁移后启动的搜索则不会受到影响。在迁移过程中，请勿对 KV 存储进行大量写入操作，否则迁移可能会失败。

使用 `curl -k -u admin:changeme https://localhost:8099/services/shcluster/captain/kvmigrate/stop` 命令可以随时停止迁移过程。

KV 存储的非管理员节点会以滚动方式与管理员节点保持同步，一次同步一个节点，并且迁移过程不会自动将 KV 存储的数据备份到一个单独位置。您可以在开始迁移过程之前备份您的 KV 存储数据。

启动 KV 存储的存储引擎迁移

编辑每个节点上的 server.conf 文件以准备部署，然后启动迁移。

1. 打开 *nix 平台中 `$SPLUNK_HOME/etc/system/local/` 目录下，或 Windows 中 `%SPLUNK_HOME\etc\system\local\` 目录下的 server.conf。
2. 编辑 `storageEngineMigration` 设置以匹配以下示例：
```
[kvstore]
storageEngineMigration=true
```
3. 重新启动搜索头，然后对每个搜索头重复这些步骤。
4. 使用以下命令之一检查实例是否已准备好迁移。您可以使用 REST API 或 Splunk Enterprise 命令行界面（CLI）进行此检查。
REST API：
```
curl -k -u admin:changeme https://localhost:8099/services/shcluster/captain/kvmigrate/start -d storageEngine=wiredTiger -d isDryRun=true
```
CLI：
```
splunk start-shcluster-migration kvstore -storageEngine wiredTiger -isDryRun true
```
5. 解决所有阻碍迁移的问题。只有当所有检查都通过后才能执行迁移。
6. 要启动迁移，请选择是要按节点百分比还是按特定的 URI 进行迁移。如果您未指定任何选项，那么所有节点会以滚动方式一次迁移一个。

选项	REST API 示例	CLI 示例
按百分比	curl -k -u admin:changeme https://localhost:8099/services/shcluster/captain/kvmigrate/start -X POST -d storageEngine=wiredTiger -d clusterPerc=50	splunk start-shcluster-migration kvstore -storageEngine wiredTiger -clusterPerc 50
按 URI	curl -k -u admin:changeme https://localhost:8099/services/shcluster/captain/kvmigrate/start -X POST -d storageEngine=wiredTiger -d peersList="server1:8192,server2:8192,server3:8192"	splunk start-shcluster-migration kvstore -storageEngine wiredTiger -peersList "server1:8192,server2:8192,server3:8192"

监视和确认 KV 存储的存储引擎迁移

一旦迁移开始后，您可以使用多种方法来监视迁移过程，并确认迁移是否成功完成。

- 要检查当前正在迁移哪个节点，请使用以下命令。您可以使用 REST API 或 Splunk Enterprise 命令行界面（CLI）进行此检查。
REST API：
```
curl -k -u admin:changeme https://localhost:8099/services/shcluster/captain/kvmigrate/status
```
CLI：
```
splunk show shcluster-kvmigration-status
```
- 若需升级状态的更多信息，请使用以下命令：
```
splunk show kvstore-status
```

- 要检查群集成员的迁移进度，请针对该成员查看 *nix 平台中的 KVStoreReplicaSetStats 条目（位于 $SPLUNK_HOME/var/log/introspection/kvstore.log 文件中），或 Windows 平台中的该条目（位于 %SPLUNK_HOME\var\log\introspection\kvstore.log 文件中）。此状态每 30 秒更新一次。

如果备份了 KV 存储，请确认迁移成功，然后删除 KV 存储备份数据。

KV 存储故障排除工具

本主题介绍查看 KV 存储状态及其日志文件的工具，还介绍了一些您可以在 Splunk Enterprise 中使用的监视工具。

检查 KV 存储状态

您可以通过以下方式检查 KV 存储状态：

- 使用命令行。
- 做出 REST API GET 请求。
- 在监视控制台中运行 KV 存储运行状况检查。请参阅《*监视 Splunk Enterprise*》中的“访问和自定义运行状况检查”。

KV 存储状态 CLI 命令

在任何 KV 存储成员的命令行的 $SPLUNK_HOME/bin 中键入以下命令：

```
./splunk show kvstore-status
```

有关在 Splunk 软件中使用 CLI 的信息，请参阅“关于 CLI”。

KV 存储状态 REST 端点

使用 cURL 通过 REST API 发出 GET 请求：

```
          curl -k -u user:pass https://<host>:<mPort>/services/kvstore/status
```

有关 REST API 的详细信息，请参阅《*REST API 用户手册*》中的“基本概念”。

KV 存储状态定义

以下是 status 和 replicationStatus 及其定义的可能值列表。有关 KV 存储成员异常状态的详细信息，请查看 mongod.log 和 splunkd.log 获取错误和警报信息。

KV 存储状态	定义
开始	• 如果是独立搜索头，此状态在定义的集合、加速字段等列表同步之后切换为 ready。 • 如果是搜索头群集，此状态在搜索头群集启动后（选择搜索头群集管理员之后）切换为 ready，搜索头群集管理员传输状态到所有搜索头群集成员。
disabled	已在本实例的 server.conf 中禁用 KV 存储。如果该成员是搜索头群集成员，仅在搜索头群集所有其他成员禁用 KV 存储时该成员保持禁用状态。
就绪	KV 存储已准备就绪。
失败	无法启动并加入搜索头群集。
关机	Splunk 软件已通知 KV 存储关机程序。

KV 存储复制状态	定义
开始	成员正在开始。
KV 存储管理员	成员是选定的 KV 存储管理员。
非管理员的 KV 存储成员	运行状况良好的 KV 存储群集中的非管理员成员。
最初同步	该成员正在重新同步一个其他 KV 存储群集成员的数据。如果经常发生这种情况或成员处于这种状态中，查看该成员的 mongod.log 和 splunkd.log，验证该成员的连接和连接速度。

关机	成员已停止。
已删除	已将成员从 KV 存储群集中删除或正在删除。
回滚/恢复/未知状态	成员可能有问题。查看该成员的 mongod.log 和 splunkd.log。

示例命令行响应：

```
This member:
                                     date : Tue Jul 21 16:42:24 2016
                                  dateSec : 1466541744.143000
                                 disabled : 0
                                     guid : 6244DF36-D883-4D59-AHD3-5276FCB4BL91
                        oplogEndTimestamp : Tue Jul 21 16:41:12 2016
                     oplogEndTimestampSec : 1466541672.000000
                      oplogStartTimestamp : Tue Jul 21 16:34:55 2016
                   oplogStartTimestampSec : 1466541295.000000
                                     port : 8191
                               replicaSet : splunkrs
                        replicationStatus : KV store captain
                               standalone : 0
                                   status : ready

 Enabled KV store members:
        10.140.137.128:8191
                                     guid : 6244DF36-D883-4D59-AHD3-5276FCB4BL91
                              hostAndPort : 10.140.137.128:8191
        10.140.137.119:8191
                                     guid : 8756FA39-F207-4870-BC5D-C57BABE0ED18
                              hostAndPort : 10.140.137.119:8191
        10.140.136.112:8191
                                     guid : D6190F30-C59A-423Q-AB48-80B0012317V5
                              hostAndPort : 10.140.136.112:8191

 KV store members:
        10.140.137.128:8191
                            configVersion : 1
                             electionDate : Tue Jul 21 16:42:02 2016
                          electionDateSec : 1466541722.000000
                              hostAndPort : 10.140.134.161:8191
                               optimeDate : Tue Jul 21 16:41:12 2016
                            optimeDateSec : 1466541672.000000
                        replicationStatus : KV store captain
                                   uptime : 108
        10.140.137.119:8191
                            configVersion : 1
                              hostAndPort : 10.140.134.159:8191
                            lastHeartbeat : Tue Jul 21 16:42:22 2016
                        lastHeartbeatRecv : Tue Jul 21 16:42:22 2016
                     lastHeartbeatRecvSec : 1466541742.490000
                         lastHeartbeatSec : 1466541742.937000
                               optimeDate : Tue Jul 21 16:41:12 2016
                            optimeDateSec : 1466541672.000000
                                   pingMs : 0
                        replicationStatus : Non-captain KV store member
                                   uptime : 107
        10.140.136.112:8191
                            configVersion : -1
                              hostAndPort : 10.140.133.82:8191
                            lastHeartbeat : Tue Jul 21 16:42:22 2016
                        lastHeartbeatRecv : Tue Jul 21 16:42:00 2016
                     lastHeartbeatRecvSec : 1466541720.503000
                         lastHeartbeatSec : 1466541742.959000
                               optimeDate : ZERO_TIME
                            optimeDateSec : 0.000000
                                   pingMs : 0
```

```
                replicationStatus : Down
                           uptime : 0
```

KV 存储消息

KV 存储在内部日志中记录错误和警告消息，包括 splunkd.log 和 mongod.log。这些错误消息将发布到 Splunk Web 公告板上。有关内部日志文件概述，请参阅“Splunk 记录有关自身的哪些内容”。

最新的 KV 存储错误消息也会出现在 REST `/services/messages` 端点。您可以使用 cURL 按如下方式为端点作出 GET 请求：

```
curl -k -u user:pass https://<host>:<mPort>/services/messages
```

有关自检端点的更多信息，请阅读*《REST API 参考手册》*中的“系统端点描述”。

KV 存储迁移消息

如果您使用 KV 存储时遇到迁移问题，那么 mongod.log 文件中将显示以下行：

```
2018-07-17T15:44:12.122-0700 F STORAGE [initandlisten] BadValue: Invalid value for version, found 3.2, expected '3.6' or '3.4'.
Contents of featureCompatibilityVersion document in admin.system.version: { _id: "featureCompatibilityVersion", version: "3.2"
}. See http://dochub.mongodb.org/core/3.6-feature-compatibility.

2018-07-17T15:44:12.122-0700 F CONTROL [initandlisten] ** IMPORTANT: UPGRADE PROBLEM: Unable to parse the
featureCompatibilityVersion document. The data files need to be fully upgraded to version 3.4 before attempting an upgrade to
3.6. If you are upgrading to 3.6, see http://dochub.mongodb.org/core/3.6-upgrade-fcv.
```

如果您看到这些行，请完成以下步骤手动迁移 KV 存储：

1. 输入 `splunk migrate mongod-fix-voting-priority` 命令。

   除非此命令已成功完成，否则请勿进行下一步。
2. 输入 `splunk migrate migrate-kvstore` 命令。

将 Splunk Enterprise 从版本 7.2 降级到 7.1 会导致 mongod.log 文件中出错。

如果您将 Splunk Enterprise 从版本 7.2 降级到 7.1，您可能会收到以下 mongod.log 错误讯息：

```
2018-07-17T15:49:23.035-0700 I - [initandlisten] Fatal assertion 18523 InvalidOptions: The field 'uuid' is not a valid
collection option. Options: { capped: true, size: 10485760, uuid: BinData(4, 3EC1315074984FEC94A1AE35848760B6) } at
src/mongo/db/storage/mmap_v1/mmap_v1_database_catalog_entry.cpp 901
2018-07-17T15:49:23.035-0700 I - [initandlisten]

***aborting after fassert() failure

2018-07-17T15:49:23.043-0700 F - [initandlisten] Got signal: 6 (Abort trap: 6).
```

在将 Splunk Enterprise 从版本 7.2 降级到 7.1 之前，请用以下命令重新同步 KV 存储：

```
curl -u username:password -XPOST https://localhost:8089/services/kvstore/resync/resync?featureCompatibilityVersion=3.4
```

如果您使用此命令并在降级之前重新启动 Splunk，请在降级前重新运行此命令。

升级 KV 存储服务器的 IP 地址需要重新同步

如果您升级 KV 存储服务器的 IP 地址，您可能会在 mongod.log 中收到以下错误讯息：

```
Did not find local replica set configuration document at startup; NoMatchingDocument
Did not find replica set configuration document in local.system.replset
```

要重新配置群集挑选新的 IP 地址，重新同步以强制群集配置进行刷新：

```
splunk resync shcluster-replicated-config
```

使用此命令手动重新刷新会覆盖该 KV 存储服务器上的任何本地更改。有关手动重新同步群集成员的更多信息，请参阅*《分布式搜索》*手册中的“为什么正在恢复的成员可能需要手动重新同步”。

有关重新同步 KV 存储的更多信息，请参阅“重新同步 KV 存储”。

监视 KV 存储性能

您可通过监视控制台上的两个视图监视 KV 存储性能。KV 存储：部署仪表板提供跨 Splunk Enterprise 部署中所有 KV 存储所聚合的信息。KV 存储：实例仪表板显示运行 KV 存储的单个 Splunk Enterprise 实例的性能信息。请参阅*《监视 Splunk Enterprise》* 中的“KV 存储仪表板”。

认识 Splunk 应用

应用和加载项

应用和加载项允许您扩展 Splunk 平台的功能。

应用

应用是运行在 Splunk 平台上的应用程序。应用旨在分析和显示围绕特定数据源或数据集的知识。

应用可能包含以下任何或所有配置：

- 集成了数据源和结构知识的仪表板和辅助搜索。
- 验证管理和其他数据源管理接口。
- 一个应用可能需要使用一个或多个加载项，以方便它收集或配置数据。

有些应用是免费的，有些是需要付费的。免费应用的示例包括：Splunk App for Microsoft Exchange、Splunk App for AWS 和 Splunk DB Connect。

加载项

加载项提供特定的功能来协助收集、规范化和丰富数据源。

加载项可能包含以下任何或所有配置：

- 数据源输入配置。
- 数据解析和转换配置，以便为 Splunk Enterprise 整理数据。
- 查找文件以丰富数据。
- 辅助知识对象。

示例包括：Splunk Add-on for Checkpoint OPSEC LEA、Splunk Add-on for Box 和 Splunk Add-on for McAfee。

应用和加载项支持

任何人都可以为 Splunk 软件开发应用或加载项。Splunk 和我们社区的成员创建应用和加载项，并通过在线应用市场 Splunkbase 与 Splunk 软件的其他用户共享这些应用和加载项。Splunk 不支持 Splunkbase 上的所有应用和加载项。

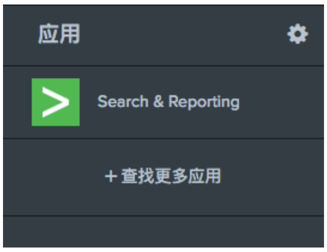
- 有关应用和加载项的支持选项列表，请参阅 Splunk 开发人员门户中的“Splunkbase 中应用的支持类型”。
- 有关开发应用的指导，请参阅 Splunk 开发人员门户中的“Splunk Cloud 和 Splunk Enterprise 开发人员指南”。

搜索和报表应用

默认情况下，Splunk Enterprise 提供“搜索和报表”应用。该界面提供了 Splunk Enterprise 的核心功能。当您首次登录 Splunk Web 时，Splunk 主页会提供指向该应用程序的链接。

查找 Splunk 搜索和报表

1. 如果不在 Splunk Home 页面中，请单击 Splunk 栏上的 **Splunk** 徽标转到 Splunk Home。
2. 从 Splunk Home 上，在**应用**面板中单击**搜索和报表**。

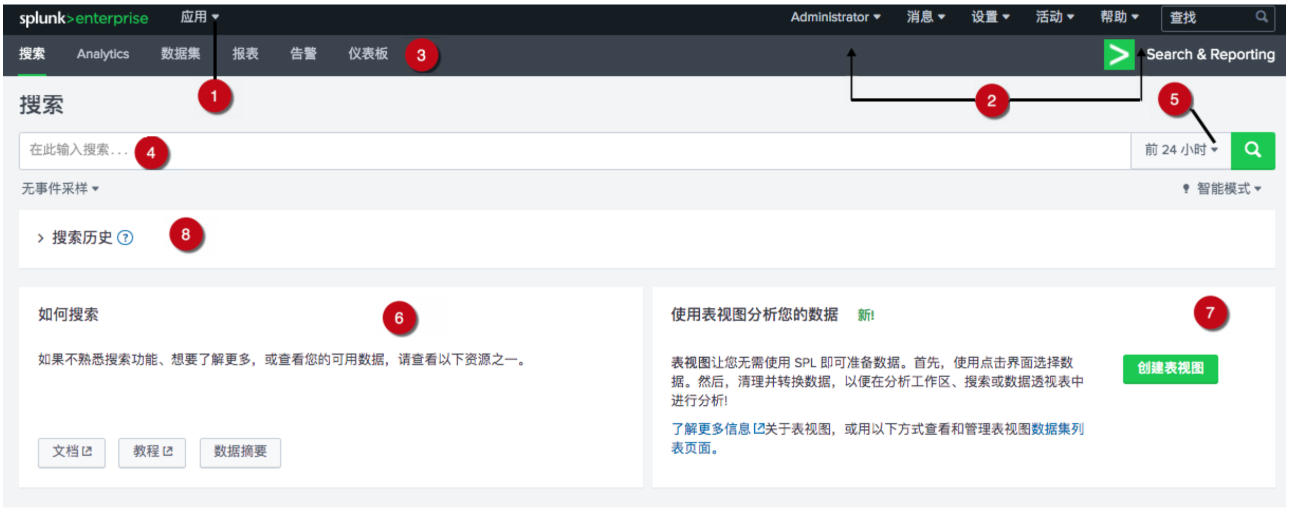


搜索应用中的“搜索摘要”视图随即打开。

搜索摘要视图

搜索摘要视图显示与其他视图通用的元素，包括应用程序菜单、Splunk 栏、应用栏、搜索栏和时间范围挑选器；面板还包括搜

索摘要视图特定的元素，这些元素位于搜索栏下方：**如何搜索**面板、**搜索内容**面板及**搜索历史**面板。



如果不熟悉搜索功能、想要了解更多，或查看您的可用数据，请查看以下资源之一。

表视图让您无需使用 SPL 即可准备数据。首先，使用点击界面选择数据。然后，清理并转换数据，以便在分析工作区、搜索或数据透视表中进行分析!

了解更多信息关于表视图，或用以下方式查看和管理表视图数据集列表页面。

数字	元素	描述
1	**应用程序菜单**	在已安装的 Splunk 应用程序间进行切换。当前列出 “搜索和报表” 应用程序。此菜单位于 Splunk 栏中。
2	**Splunk 栏**	编辑 Splunk 配置，查看系统级别的消息，获取产品使用帮助。
3	**应用栏**	在当前应用程序中不同视图间进行导航。搜索和报表应用中的视图有：搜索、指标、数据集、报表、告警和仪表板。
4	**搜索栏**	指定搜索条件。
5	**时间范围挑选器**	指定搜索时间周期，例如过去 30 分钟或昨天。默认时间范围为**过去 24 小时**。
6	**如何搜索**	包含*《搜索手册》*和*《搜索教程》*的链接。
7	**搜索内容**	显示此 Splunk 实例上已上载的、您有权查看的数据的摘要。
8	**搜索历史**	可查看已运行搜索的列表。在您运行首次搜索后，即会显示搜索历史。

将 Splunk Web 配置为直接在应用中打开

您可以配置 Splunk Web 以便绕过 Splunk 主页，改为在您选择的特定应用中打开。这就是所说的设置默认应用。我们建议按角色执行这项操作时，您也可以为所有用户或针对每个用户设置默认应用。为特定用户设置的默认应用优先于该用户角色的默认应用。

按角色设置默认应用

您可以为每个具有特定角色的用户设置默认应用。例如，您可以将具有 “用户” 角色的所有用户发送到您新建的应用中，将所有管理员用户发送到监视控制台。

要为具有特定角色的所有用户绕过 Splunk 主页：

1. 在 Splunk Web 中，单击**设置** > **访问控制**。
2. 单击**角色**。
3. 单击要配置的角色名称。
4. 在屏幕顶部，使用**默认应用**下拉菜单选择新的默认应用。
5. 单击**保存**。

无需重新启动更改即可生效。

为所有用户设置默认应用

您可以为所有用户指定当它们登录后进入的默认应用。例如，要将 “搜索” 应用作为全局默认应用：

1. 新建或编辑 `$SPLUNK_HOME/etc/apps/user-prefs/local/user-prefs.conf` (*nix) 或 `%SPLUNK_HOME%\etc\apps\user-prefs\local\user-prefs.conf` (Windows)。
2. 指定

```
[general_default]
default_namespace = search
```

3. 重新启动 Splunk Enterprise 使更改生效。

参阅 user-prefs.conf.spec。

为单个用户设置默认应用

大多数情况下，您可以按角色设置默认应用。但是如果您的使用案例要求您为特定用户设置默认应用，您可以通过 Splunk Web 进行设置。

使“搜索”应用成为用户的默认登录应用：

1. 在 Splunk Web 中，单击**设置** > **访问控制**。
2. 单击**用户**。
3. 单击要配置的用户名称。
4. 在**默认应用**下，选择您想要设置为默认应用的应用。
5. 单击**保存**。

无需重新启动更改即可生效。

关于应用权限

如果出现以下情况，则用户将会看到错误：

- 用户无权访问默认应用，或
- 默认应用不存在（例如，如果在 user-prefs.conf 中输入错误的话）。

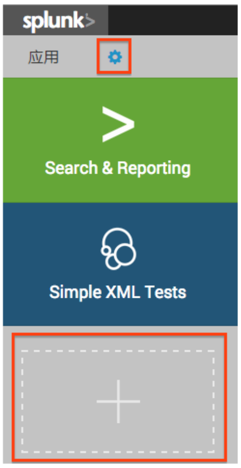
有关管理应用权限的信息，请参阅“管理应用和加载项配置和属性”。

从哪里获得更多应用和加载项

您可以在 Splunkbase 中找到新的应用和加载项：**https://splunkbase.splunk.com/**您也可以在 Splunk Enterprise 主页中浏览新应用。

如果您已连接到 Internet

如果 Splunk Enterprise 服务器或客户端计算机已连接到 Internet，则可以从主页导航到应用浏览器。



- 您可以单击您上一次安装的应用下方的 + 号以直接转到应用浏览器。

- 您也可以单击**应用**旁边的齿轮以转到应用管理器页面。单击**浏览更多应用**以转到应用浏览器。

重要提示：如果 Splunk Web 位于代理服务器之后，您可能会在访问 Splunkbase 时遇到问题。要解决此问题，您需要遵照“使用带反向代理配置的 Splunk Web”中的说明来设置 HTTP_PROXY 环境变量。

如果您未连接到 Internet

如果您的 Splunk Enterprise 服务器和客户端未连接到 Internet，则必须首先从 Splunkbase 下载应用，然后将其复制到您的服务器上：

1. 从具有 Internet 连接的计算机上，浏览 Splunkbase 以找到所需的应用或加载项。

2. 下载应用或加载项。

3. 下载之后，将其复制到您的 Splunk Enterprise 服务器上。

4. 将其放入您的 `$SPLUNK_HOME/etc/apps` 目录中。

5. 通过诸如 `tar -xvf`（在 *nix 上）或 WinZip（在 Windows 上）等工具来解压您的应用或加载项。请注意，虽然 Splunk 应用和加载项使用 `.SPL` 扩展名进行打包，但其内部仍为 tar 和 gzip 格式。您可以需要强制您的工具识别此扩展名。

6. 您可能需要重新启动 Splunk Enterprise，这取决于应用或加载项的内容。

7. 现在，应用或加载项已安装就绪。如果应用或加载项具有 Web UI 组件，您还可以从 Splunk 主页上使用。

应用部署概述

本主题提供关于您可在常见 Splunk 软件环境中部署 Splunk 应用和加载项的方法概述。

有关应用和加载项部署的更多详细信息，请参阅特定的 Splunk 应用文档或 *Splunk 加载项*手册中的“将 Splunk 加载项安装于何处”。

前提条件

您必须具有一个现成的 Splunk 平台部署，Splunk 应用和加载项安装在该平台上。

部署方法

有几种方法可将应用和加载项部署到 Splunk 平台上。要使用正确的部署方法取决于特定 Splunk 软件部署的以下特性：

- 部署架构（单实例或分布式）
- 群集类型（搜索头群集和/或索引器群集）
- 位置（本地或在 Splunk Cloud 中）

Guided Data Onboarding

Guided Data Onboarding (GDO) 提供端对端指导，以便将特定数据来源导入至特定的 Splunk 平台部署。您必须启动并运行 Splunk 部署，且只有当您具有管理员或等同的角色时，您才可以安装加载项。

从 Splunk Web 主页面中，单击**添加数据**查找数据导入指南。您可以搜索数据来源或浏览不同的数据来源类别。选择数据来源后，您可选择部署方案。这样您可查看方案图和高级步骤来设置和配置数据来源。

Splunk Web 链接到更详细说明如何设置和配置数据来源的文档。您可以单击 Splunk Enterprise 文档网站中的**添加数据**选项卡查找所有 Guided Data Onboarding 手册。

部署架构

有两种基本的 Splunk Enterprise 部署架构：

- **单实例部署**：在单实例部署中，一个 Splunk Enterprise 实例既用作搜索头，又用作索引器。
- **分布式部署**：分布式部署会包括多个 Splunk Enterprise 组件，其中包含搜索头、索引器和转发器。请参阅*分布式部署手册*中的“使用 Splunk Enterprise 组件调整部署规模”。分布式部署也包括标准独立组件和/或群集组件，其中包含搜索头群集、索引器群集和多站点群集。请参阅*分布式部署手册*中的“分布式 Splunk Enterprise 概述”。

单实例部署

要在单实例上部署应用，从 **Splunkbase** 下载应用到本地主机，然后使用 **Splunk Web** 安装应用。

一些应用目前不支持通过 Splunk Web 安装。确保在安装之前查看特定应用的安装说明。

分布式部署

您可以使用以下方法在分布式环境中部署应用：

- 使用 Splunk Web 在每个组件上手动安装应用，或通过命令行手动安装应用。

- 使用**部署服务器**安装应用。部署服务器自动分发新的应用、应用更新和某些配置更新到搜索头、索引器和转发器上。请参阅*《更新 Splunk Enterprise 实例》*中的“关于部署服务器和转发器管理”。

或者，您可以使用第三方配置管理工具来部署应用，例如：

- Chef
- Puppet
- Salt
- Windows 配置工具

大多数情况下，您必须将 Splunk 应用安装在搜索头、索引器和转发器上。要确定您必须将应用安装在哪个 Splunk Enterprise 组件上，请参阅特定应用的安装说明。

将应用部署到群集

Splunk 分布式部署包括以下这些群集类型：

- **搜索头群集**
- **索引器群集**

您可以使用**配置软件包**方法将应用部署到索引器和搜索头群集成员上。

搜索头群集

要将应用部署到搜索头群集，您必须使用 **Deployer**。Deployer 是将应用和配置更新分发给搜索头群集成员的 Splunk Enterprise 实例。Deployer 不能是搜索头群集成员，而且必须在搜索头群集之外运行。请参阅*《分布式搜索》*手册中的“使用部署程序分布应用和配置更新”。

警告：切勿将配置软件包部署到 deployer 之外的任何实例上的搜索头群集。如果您在非-deployer 实例（例如群集成员）上运行 `apply shcluster-bundle` 命令，该命令会删除所有现有的应用和所有搜索头群集成员上用户生成的内容！

索引器群集

要将应用部署到索引器群集中的对等节点（索引器）上，首先您必须将应用放在索引器群集管理器节点上适当的位置，然后使用配置软件包方法来将应用分发到对等节点。您可以使用 Splunk Web 或 CLI 将配置软件包应用到对等节点。有关更多信息，请参阅*管理索引器和索引器群集*中的“更新通用对等节点配置和应用”。

当您无法使用部署服务器将应用部署到对等节点时，您可以使用它来分发应用到索引器群集管理器节点。有关更多信息，请参阅*《管理索引器和索引器群集》*中的“使用部署服务器分发应用到管理器节点”。

部署应用到 Splunk Cloud

如果您想将应用或加载项部署至 Splunk Cloud，请参阅 Splunk Cloud 部署中的“安装应用”。

部署加载项到 Splunk Light

您可以安装并启用选择有限的加载项，在 Splunk Light 实例上配置新的数据输入。请参阅 Splunk Light *入门手册*中的“配置加载项来添加数据”。

应用架构和对象所有权

应用通常由 Splunk **知识对象**构建而成。Splunk 知识包括诸如保存的搜索、事件类型、标记（用于增强您的 Splunk 部署，方便您找到所需信息的项目）等对象。

注意：偶尔您可能也会将对象保存到加载项，但这并不常见。应用和加载项都存储在应用目录中。在很少的情况下您需要将对象保存到加载项，您可按照本主题中为应用介绍的管理方式来管理加载项。

任何登录到 Splunk Web 的用户都可以在所使用的应用下新建知识对象并将其保存到相应的用户目录下（假设具有足够权限）。这是一种默认行为 – 当用户保存某个对象时，该对象会进入当前所运行的应用下相应的用户目录中。用户目录位于 `$SPLUNK_HOME/etc/users/<user_name>/<app_name>/local` 中。一旦用户在该应用中保存了对象之后，这一对象仅对此用户（当其使用该应用时）可用，除非用户采取以下做法之一：

- 提升此对象，以使其对有权访问该应用的所有用户可用
- 将此对象限定于特定角色或用户（仍然在该应用上下文中）
- 使此对象对所有应用、加载项和用户全局可用（除非您明确将其限定于特定角色/用户）

注意：用户必须对应用或加载项具有写入权限，方能将对象提升到该级别。

提升和共享 Splunk 知识

用户可以通过“权限”对话框与其他用户共享他们的 Splunk 知识对象。这意味着对应用或加载项具有读取权限的用户可以看到共享的对象并使用它们。例如，如果某个用户共享了一个保存的搜索，则其他用户可以看到此搜索，但必须处于新建搜索所在的应用中。因此，如果您在应用 "Fflanda" 中新建了一个保存的搜索并共享，则 Fflanda 的其他用户可以看到保存的搜索，前提是他们对 Fflanda 具有读取权限。

具有写入权限的用户可以将其对象提升到应用级别。这意味着对象将从其用户目录复制到应用的目录 – 从：

```
$SPLUNK_HOME/etc/users/<user_name>/<app_name>/local/
```

至：

```
$SPLUNK_HOME/etc/apps/<app_name>/local/
```

只有那些在应用中具有写入权限的用户可以执行此操作。

使 Splunk 知识对象全局可用

最后，在提升对象时，用户可以决定他们是否希望自己的对象全局可用，这意味着所有的应用都能够看到它。同样，用户必须对原始应用具有写入权限。最方便的做法是在 Splunk Web 中完成此操作，不过您也可以直接将相关对象移动到所需目录中。

要将应用 D 中属于用户 C 的对象 A（在 B.conf 中定义）全局可用：

1. 将定义对象 A 的段落从 `$SPLUNK_HOME/etc/users/C/D/B.conf` 移动到 `$SPLUNK_HOME/etc/apps/D/local/B.conf`。

2. 在该应用的 `local.meta` 文件中，向对象 A 的段落部分添加设置 `export = system`。如果此对象的段落不存在，您可以添加相应的段落。

例如，要提升由用户 fflanda 在 *Nix 应用中新建的事件类型 rhallen 以使其全局可用：

1. 将 [rhallen] 段落从 `$SPLUNK_HOME/etc/users/fflanda/unix/local/eventtypes.conf` 移动到 `$SPLUNK_HOME/etc/apps/unix/local/eventtypes.conf`。

2. 添加以下段落：

```
[eventtypes/rhallen]
export = system
```

至 `$SPLUNK_HOME/etc/apps/unix/metadata/local.meta`。

注意：如果您是从“搜索”应用中共享事件类型，则无需将 `export = system` 设置添加到 `local.meta`，因为默认情况下该应用会全局导出其所有事件。

这适用于哪些对象？

这里讨论的知识对象仅限于那些受访问控制机制影响的对象。这些对象也称为应用级别对象，可以通过在“用户”菜单栏中选择**应用 > 管理应用**来查看它们。所有用户都可以使用此页面来管理他们新建和共享的任何对象。这些对象包括：

- 保存的搜索和报表
- 事件类型
- 视图和仪表板
- 字段提取

还有一些仅具有管理员权限（或对特定对象具有读取/写入权限）用户可用的系统级别对象。这些对象包括：

- 用户
- 角色
- 验证
- 分布式搜索
- 输入
- 输出
- 部署
- 许可证
- 服务器设置（例如：主机名、端口等）

重要提示：如果您添加了一个输入，Splunk 会将该输入添加到属于您当前所用应用的 `inputs.conf` 副本中。这意味着如果您直

接从“搜索”导航到您的应用，则您的输入将被添加到 `$SPLUNK_HOME/etc/apps/search/local/inputs.conf`，而这可能并不是您希望的行为。

应用配置和知识优先顺序

当您向 Splunk 添加知识时，是在您当前所在的应用上下文中添加的。Splunk 评估配置和知识时，会按照特定的优先顺序来评估它们，因此您可以控制在哪种上下文中使用哪些知识定义与配置。参阅“关于配置文件”以了解有关 Splunk 配置文件和优先顺序的更多信息。

管理应用和加载项对象

当 Splunk 用户新建**应用**或**加载项**时，将新建一个构成应用或加载项的对象集合。这些对象可以包括**视图**、命令、导航项目、**事件类型**、**保存的搜索**、**报表**等等。其中每个对象均具有关联的权限，以确定谁能够查看或改变它们。默认情况下，管理员用户有**权限**改变 Splunk 系统中的所有对象。

参阅这些主题以了解更多信息：

- 有关应用和加载项的概述，请参阅本手册中的“应用和加载项是什么？”。
- 有关应用和加载项权限的更多信息，请参阅本手册中的“应用架构和对象所有权”。
- 要了解有关如何新建您自己的应用和加载项的更多信息，请参阅*开发用于 Splunk Web 的视图和应用*。

在 Splunk Web 中查看应用或加载项对象

要使用 Splunk Web 来查看您的 Splunk 平台部署中的对象，您可以采用以下方法：

- 要一次查看您的系统中所有应用和加载项的对象：**设置** > **所有配置**。
- 要查看所有保存的搜索和报表对象：**设置** > **搜索和报表**。
- 要查看所有事件类型：**设置** > **事件类型**。
- 要查看所有字段提取：**设置** > **字段**。

您可以：

- 在任何具有排序箭头 ⬍ 的页面上查看和操作对象
- 使用“应用”上下文栏，可以对视图进行过滤以只查看那些来自给定应用或加载项的对象、特定用户拥有的对象或包含特定字符串的对象。

使用应用上下文栏上的“搜索”字段来在相关字段中搜索字符串。默认情况下，Splunk 平台会在所有可用字段中搜索字符串。要在特定字段中执行搜索，应指定相应的字段。支持通配符。

注意：有关搜索命令页面上各个搜索命令的信息，请参阅*《搜索参考手册》*。

管理群集环境中的应用和加载项

通过为索引器群集和搜索头群集的 Deployer 在管理器节点上更改**配置软件包**，管理群集环境中的应用和配置。访问相关群集文档了解详细信息：

- *《管理索引器和索引器群集》*中的“更新通用节点配置和应用”。
- *《分布式搜索》*中的“使用 deployer 分布应用和配置更新”。

管理独立实例中的应用和加载项

在 CLI 中更新应用或加载项

要使用 CLI 来更新独立 Splunk 实例中的现有应用：

```
./splunk install app <app_package_filename> -update 1 -auth <username>:<password>
```

Splunk 会根据从安装软件包中找到的信息来更新应用或加载项。

使用 CLI 禁用应用或加载项

要使用 CLI 来禁用独立 Splunk 实例中的应用：

```
./splunk disable app [app_name] -auth <username>:<password>
```

注意：如果您正在运行 Splunk Free，则无需提供用户名和密码。

卸载应用或加载项

要从独立 Splunk 平台安装中移除已安装的应用：

1. （可选）删除该应用或加载项的索引数据。通常，Splunk 平台不会从已删除的应用或加载项访问索引数据。但是，您可以使用 Splunk CLI 的 clean 命令移除应用中的索引数据，然后再删除该应用。参阅“使用 CLI 命令来删除索引数据”。
2. 删除应用及其目录。应用及其目录通常位于 `$SPLUNK_HOME/etc/apps/<appname>`。您可在 CLI 中运行以下命令：`./splunk remove app [appname] -auth <username>:<password>`
3. 您可能需要删除为您的应用或加载项新建的用户特定目录，做法是删除这里查找到的任何文件：`$SPLUNK_HOME/etc/users/*/<appname>`
4. 重新启动 Splunk 平台。

管理应用和加载项配置及属性

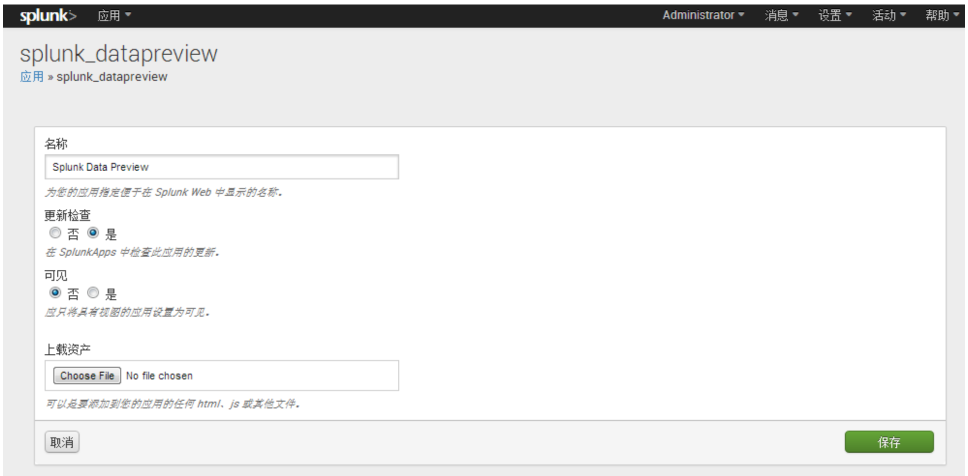
您可以从“应用”菜单中管理安装在 Splunk Enterprise 实例中的应用的配置与属性。单击“用户”栏中的**应用**以选择一个已安装的应用或管理一个应用。从“管理应用”页面上，您可以：

- 编辑应用或加载项的权限
- 启用或禁用应用或加载项
- 执行诸如启动应用、编辑属性和查看应用对象等操作。

编辑应用和加载项属性

您对配置和属性的编辑，取决于您是应用的所有者还是用户。

选择**应用 > 管理应用**，然后为要编辑的应用或加载项单击**编辑属性**。您可以对该 Splunk Enterprise 实例中安装的应用进行以下编辑。



splunk_datapreview

应用 » splunk_datapreview

名称

Splunk Data Preview

为您的应用指定便于在 Splunk Web 中显示的名称。

更新检查

○ 否 ● 是

在 SplunkApps 中检查此应用的更新。

可见

● 否 ○ 是

应只将具有视图的应用设置为可见。

上载资产

Choose File No file chosen

可以是要添加到您的应用的任何 html、js 或其他文件。

- **名称：**更改应用或加载项在 Splunk Web 中的显示名称。

- **更新检查：**默认情况下，更新检查处于启用状态。您可以禁用更新检查和覆盖默认设置。有关详细信息，请参阅下面的“检查应用或加载项更新”。

- **可见：**带有视图的应用应是可见的。通常没有视图的加载项应禁用可见属性。

- **上载资产：**使用此字段选择可通过应用或加载项访问的本地文件资产文件，例如 HTML、JavaScript 或 CSS 文件。从此面板一次只能上载一个文件。

关于应用和加载项的配置和属性详情，请参阅 Splunk 开发人员门户中的“为 Splunk Cloud 或 Splunk Enterprise 开发 Splunk 应用”。

检查更新

您可以配置 Splunk Enterprise 在 Splunkbase 中检查应用或加载项更新。默认情况下，启用了检查更新。您可以禁用应用更新检查：在**设置 > 应用 > 编辑属性**中编辑此属性。

但是，如果从 Splunk Web 无法访问此属性，您还可以手动编辑应用 app.conf 文件来禁用更新检查。在 $SPLUNK_HOME/etc/apps/<app_name>/local/app.conf 中新建或编辑以下段落以禁用更新检查：

```
[package]
check_for_updates = 0
```

注意：编辑 app.conf 的本地版本，而非默认版本。这样可避免用下一个应用更新覆盖您的设置。

管理用户

关于用户和角色

您可以新建具有密码的用户，然后将这些用户分配给您已新建的**角色**。Splunk Enterprise Free 不支持用户验证。

新建用户

Splunk Enterprise 支持三种类型的验证系统，并且在*《确保 Splunk Enterprise 安全》*手册中有所说明。

- **本机验证**。有关更多信息，请参阅“设置带有 Splunk Enterprise 本机验证的用户验证”。
- **LDAP**。Splunk 支持使用其内部验证服务或您的现有 LDAP 服务器进行验证。有关更多信息，请参阅“设置使用 LDAP 进行的用户验证”。
- **脚本式验证 API**。使用脚本式验证将 Splunk 本机验证与外部验证系统（如 RADIUS 或 PAM）连接起来。有关更多信息，请参阅“设置使用外部系统进行的用户验证”。

关于角色

用户会被分配给角色。角色包含一组**操作**。这些功能规定了角色可以执行哪些操作。例如，操作决定是否允许具有特定角色的人员添加输入或编辑保存的搜索。各种功能已在*《确保 Splunk Enterprise 安全》*手册中的“关于定义带功能的角色”中列出。

默认情况下，Splunk Enterprise 具有以下预定义角色：

- 管理员--该角色被分配有最多的操作。
- 高级用户--该角色可以编辑所有共享对象（保存的搜索等），以及告警、标记事件或其他类似任务。
- 普通用户--该角色可以新建并编辑自己的已保存搜索，运行搜索，编辑其首选项，新建并编辑事件类型和其他类似任务。
- 可以删除--此角色允许用户按关键字删除。在使用删除搜索运算符时，才需要此功能。

注意不要编辑预定义角色，而是应该新建继承内置角色属性的自定义角色，并按照要求修改自定义角色。

有关角色和如何将用户分配给角色的详细信息，请参阅*《确保 Splunk Enterprise 安全》*手册中的“用户和基于角色的访问控制”一章。

查找现有用户和角色

要在 Splunk Web 中查找某个现有用户或角色，可通过选择**设置 > 访问控制**，使用“访问控制”部分中的“用户或角色”页面顶部的搜索栏。支持通配符。默认情况下，Splunk Enterprise 在所有您输入字符串的可用字段中搜索。要在特定字段中执行搜索，应指定相应的字段。例如，要只搜索电子邮件地址，可键入 email=<*电子邮件地址或地址片段*>:，要只搜索“全名”字段，可键入 realname=<*姓名或姓名片段*>。要搜索给定角色中的用户，应使用 "roles="。

配置用户语言和区域设置

当用户登录时，Splunk 会自动使用在用户浏览器中所设置的语言。要切换语言，请更改浏览器的区域设置。区域设置配置因浏览器不同而异。

Splunk 会检测区域配置字符串。区域配置字符串包含两个组件：语言指示符和本地化区域指示符。它通常表示为两个小写字母和两个大写字母，中间以下划线相连。例如 "en_US" 表示美国英语，"en_GB" 表示英国英语。

用户的区域设置还会影响日期、时间和数字的格式，因为不同国家或地区在这些方面具有不同的格式标准。

Splunk 针对以下区域设置提供内置支持：

```
de_DE
en_GB
en_US
fr_FR
it_IT
ja_JP
```

ko_KR
zh_CN
zh_TW

如果您要针对其他语言添加本地化支持，请参阅《开发人员手册》中的“翻译 Splunk”以获得相关指南。然后，您需要告诉您的用户在其浏览器中指定适当的区域设置。

浏览器区域设置如何影响时间戳格式

默认情况下，根据浏览器区域设置来确定 Splunk 中的时间戳格式。如果浏览器被配置为美国英语，则时间戳将采用美国的日期格式：MM/DD/YYYY:HH:MM:SS。如果浏览器配置为英国英语，则时间戳将采用欧洲日期格式：DD/MM/YYYY:HH:MM:SS。

有关时间戳格式的更多信息，请参阅*《数据导入》*中的“配置时间戳识别”。

您还可以通过在搜索中直接包含格式来指定时间戳在搜索输出中的显示方式。请参阅*《搜索参考》*中的“数据和时间格式变量”。

覆盖浏览器区域设置

您可以通过修改用来访问 Splunk 的 URL，更改 Splunk 针对给定会话所采用的区域设置。Splunk URL 会遵循 http://host:port/locale/... 格式。例如，当您访问并登录 Splunk 时，对于美国英语，URL 会显示为 https://hostname:8000/en-US/account/login。要使用英国英语设置，您可以将区域设置字符串更改为 https://hostname:8000/en-GB/account/login。然后，该会话将以英国英语格式显示时间戳，并且在此期间接受这种格式的时间戳。

如果请求 Splunk 界面不支持尚未本地化的区域设置，则会显示消息：Invalid language Specified。

参阅《开发人员手册》中的“翻译 Splunk”以获得有关本地化 Splunk 的更多信息。

配置用户会话超时

Splunk 平台实例的用户会话超时之前经历的时间取决于以下三项超时设置之间的相互作用：

- splunkweb 会话超时。
- splunkd 会话超时。
- 浏览器会话超时。

会话超时后，用户下次向 Splunk 平台实例发送网络请求时，会提示用户再次登录。

splunkweb 和 splunkd 超时决定了浏览器与 Splunk 平台实例间相互作用的最大空闲时间。浏览器会话超时决定了用户与浏览器间相互作用的最大空闲时间。

splunkweb 和 splunkd 超时通常具有相同的值，因为它们通过同一字段进行设置。

在 Splunk Web 中设置用户会话超时

1. 单击 Splunk Web 右上角的**设置**。
2. 在“系统”下，单击**服务器设置**。
3. 单击**常规设置**。
4. 在**会话超时**字段中，输入超时值。
5. 单击**保存**。

这将同时为 splunkweb 和 splunkd 服务设置用户会话超时值。它们的初始值均为 60 分钟。如果您通过 Splunk Web 来更改超时值，则它们的值始终保持相同。

如果由于某些原因，您需要为 splunkweb 和 splunkd 设置不同的超时值，那么您可以编辑其基本配置文件 web.conf（tools.sessions.timeout 设置）和 server.conf（sessionTimeout 设置）来做到这一点。就实际应用而言，没有理由为它们指定不同的超时值。在任何情况下，如果用户正在使用 Splunk Web（splunkweb）来访问 Splunk 实例（splunkd），那么这两个超时属性中以值较小的为准。因此，如果 web.conf 中的 tools.sessions.timeout 值为 "90"（分钟），server.conf 中的 sessionTimeout 值为 "1h"（1 小时；60 分钟），则会话将在 60 分钟后超时。

除了设置 splunkweb/splunkd 会话值之外，您还可以通过编辑 web.conf 中的 ui_inactivity_timeout 值来指定用户浏览器会话的超时。Splunk 浏览器会话将在达到该值时超时。默认值为 60 分钟。如果 ui_inactivity_timeout 被设为小于 1，则不会发生超时 -- 只要浏览器处于开启状态，会话就不会超时。

只有当浏览器会话达到其超时值之后，splunkweb/splunkd 会话超时才会开始倒计时。因此，要确定在超时之前要经历多长时间，应将 ui_inactivity_timeout 值加上 splunkweb 和 splunkd 超时值中较小的一个。例如，假设以下条件：

- splunkweb 超时：15m

- splunkd 超时：20m
- 浏览器（ui_inactivity_timeout）超时：10m

则用户会话的活动状态将保持 25 分钟（15 分钟 + 10 分钟）。无活动时间达 25 分钟时，会话结束，并且在下次用户向实例发送网络请求时实例会提示用户再次登录。

如果通过 Splunk Web 或配置文件更改了超时值，则必须重新启动 Splunk 平台实例以使更改生效。

配置 Splunk Enterprise 以使用代理

为 Splunkd 使用转发代理服务器

您可以设置 HTTP/S 代理服务器，这样 Splunkd 产生的所有 HTTP/S 流量都会通过代理服务器。这使您可以管理和控制不同 Splunkd 实例之间的通信，让您管理 Splunkd 在网络上的请求。

如何工作

客户端（Splunkd）发送请求到 HTTP 代理服务器之后，转发代理服务器验证请求。

- 如果请求无效，代理会拒绝请求，客户端收到错误或重新定向。
- 如果请求有效，转发代理检查是否已缓存请求的信息。
    - 如果有缓存副本可用，转发代理会作为缓存信息。
    - 如果请求信息未缓存，则请求会发送到实际内容服务器，该服务器会将信息发送到转发代理。然后转发代理会将响应传递到客户端。

此过程通过代理服务器配置 Splunk 到 Splunk 通信。此处记录的设置不支持 Splunk 之外的互动，如：

- 通过 Splunk Web 访问 Splunkbase
- Splunk 外部查找
- REST API 调用防火墙外的外部服务操作

为 Splunkd 配置转发代理服务器

为 Splunkd 设置 HTTP 代理服务器支持：

1.下载并配置 HTTP 代理服务器，并配置该服务器以与 Splunk 节点上的 Splunkd 通信。Splunk Enterprise 支持以下代理服务器：

- Apache Server 2.4
- Apache Server 2.2
- Squid Server 3.5

2.通过设置 `server.conf` 中的代理变量或使用 REST 端点配置 Splunkd 代理设置

注意：目前不支持 TLS 代理，代理服务器必须配置为侦听非 SSL 端口。

安装和配置 HTTP 代理服务器用于 Splunkd

您可以为 Splunkd 设置 HTTP 代理服务器，这样 Splunkd 产生的所有 HTTP/S 流量都会通过代理服务器，更易于管理流量。

Splunk 软件正式支持以下 HTTP 代理服务器：

- Apache Server 2.4
- Apache Server 2.2
- Squid Server 3.5

注意：Splunk Enterprise 支持 HTTPS 请求的 HTTP CONNECT 方法。不支持 TLS 代理，且代理服务器无法侦听 SSL 端口。

配置 Apache Server 2.4

1.通过 http://httpd.apache.org/download.cgi 下载最新版本的 Apache server 2.4。

2.解压缩并安装在运行代理服务器的计算机上。以下示例通过数据来源编译服务器。

```
gzip -d httpd-2.4.25.tar.gz
tar xvf httpd-2.4.25.tar
cd httpd-NN
./configure --prefix=$PROXY_HOME
make install
```

3. 自定义 Apache 服务器 httpd.conf 文件。

```
Listen = 8000 <IP addresses and ports that the server listens to>
ProxyRequests = On < Enables forward (standard) proxy requests>
SSLProxyEngine = On <This directive toggles the usage of the SSL/TLS Protocol Engine for proxy>
AllowCONNECT = 443 <Ports that are allowed to CONNECT through the proxy>
```

其他配置（可选）

在配置或禁用这些值之前，请阅读 Apache 文档获取其他信息。

```
SSLProxyVerify = optional <When a proxy is configured to forward requests to a remote SSL server, this setting can configure certificate verification of the remote server>
SSLProxyCheckPeerCN = on <determines whether the remote server certificate's CN field is compared against the hostname of the request URL>
SSLProxyCheckPeerName = on <turns on host name checking for server certificates when mod_ssl is acting as an SSL client>
SSLProxyCheckPeerExpire = on <enables certificate expiration checking>
```

配置 Apache Server 2.2

1. 通过 http://httpd.apache.org/download.cgi 下载最新版本的 Apache server 2.2。

2. 解压缩并安装在运行代理服务器的计算机上。以下示例通过数据来源编译服务器。

```
$ gzip -d httpd-2.2.32.tar.gz
$ tar xvf httpd-2.2.32.tar
$ cd httpd-NN
$ ./configure --prefix="PROXY_HOME" --enable-ssl --enable-proxy --enable-proxy-connect --enable-proxy-http
$ make install
```

3. 自定义 Apache 服务器的 httpd.conf 文件：

```
Listen 8000 <This is the list of IP addresses and ports that the server listens to>
ProxyRequests = On <Enables forward (standard) proxy requests>
SSLProxyEngine = On <This directive toggles the usage of the SSL/TLS Protocol Engine for proxy>
AllowCONNECT 443 <Ports that are allowed to CONNECT through the proxy>
```

其他配置（可选）

在更改或禁用环境中的这些设置之前，请阅读 Apache 文档获取其他信息。

```
SSLProxyVerify = optional <When a proxy is configured to forward requests to a remote SSL server, this directive can be used to configure certificate verification for the remote server.>
SSLProxyCheckPeerCN = on <Determines whether the remote server certificate's Common Name field is compared against the hostname of the request URL>
SSLProxyCheckPeerName = on <Configures host name checking for server certificates when mod_ssl is acting as an SSL client>
SSLProxyCheckPeerExpire = on <when turned on, the systems checks whether if the remote server certificate is expired or not>
```

配置 Squid 3.5

1. 通过 http://httpd.apache.org/download.cgi 下载最新版本的 Squid server 3.5。

2. 解压缩并将下载内容安装在运行代理服务器的计算机上。以下示例通过数据来源编译 Squid server 3.5。

```
$ tar xzf squid-3.5.23.tar.gz
$ cd squid-3.5.23
$ ./configure --with-openssl
$ make
$ make install
```

3. 配置 Squid 服务器的 squid.conf 文件

```
acl localnet src = <configure all possible internal network ports, a new line for each port>
acl SSL_ports = <configure all acl SSL_ports, a new line for each port>
acl CONNECT method CONNECT <ACL for CONNECT method>
http_port 8000 <Port on which the Squid server will listen for requests>
```

其他配置（可选）

在配置或禁用环境中的这些设置之前，请阅读 Squid 文档获取其他信息。

```
sslproxy_cert_error deny all <Use this ACL to bypass server certificate validation errors>
sslproxy_flags DONT_VERIFY_PEER <Various flags modifying the use of SSL while proxying https URLs>
hosts_file PROXY_HOME/hosts <Location of the host-local IP name-address associations database>
```

配置 Splunkd 以使用 HTTP 代理服务器

您可以为 Splunkd 设置 HTTP 代理服务器，这样 Splunkd 产生的所有 HTTP/S 流量都会通过代理服务器。

要为 Splunkd 设置代理服务器，您可以配置 server.conf 中的 Splunk 代理变量或配置 REST 端点。

此过程通过代理服务器配置 Splunk 到 Splunk 通信。此处记录的设置不支持 Splunk 之外的互动，如：

- 通过 Splunk Web 访问 Splunkbase
- Splunk 外部查找
- REST API 调用防火墙外的外部服务操作

编辑 server.conf 以将 Splunkd 配置为和服务器代理结合使用

对于单个 Splunk Enterprise 实例，您可以在 %SPLUNK_HOME/etc/system/local 中添加代理配置，或部署一个自定义应用并确保该应用包含带代理设置的 server.conf 文件。要配置多个实例（索引器池、搜索头群集等），请使用部署管理工具（如 Deployer、部署服务器或群集管理器节点）来部署包含带代理设置的 server.conf 文件的应用。

```
[proxyConfig]
http_proxy = <string that identifies the server proxy. When set, splunkd sends all HTTP requests through this proxy server. The default value is unset.>
https_proxy = <string that identifies the server proxy. When set, splunkd sends all HTTPS requests through the proxy server defined here. If not set, splunkd uses the proxy defined in http_proxy. The default value is unset.>
no_proxy = <string that identifies the no proxy rules. When set, splunkd uses the [no_proxy] rules to decide whether the proxy server needs to be bypassed for matching hosts and IP Addresses. Requests going to localhost/loopback address are not proxied. Default is "localhost, 127.0.0.1, ::1">
```

使用 REST 端点以将 Splunkd 配置为和服务器代理结合使用

您还可以通过更改 /services/server/httpsettings/proxysettings REST 端点将 Splunkd 配置为和 HTTP 代理服务器结合使用。要使用 REST 端点设置变量，您必须具有 edit_server 功能。

新建 [proxyConfig] 段落：

```
curl -k /services/server/httpsettings/proxysettings --data name="proxyConfig"
```

向段落中写入：

```
curl -k /services/server/httpsettings/proxysettings/proxyConfig --data "http_proxy=....&https_proxy=...&no_proxy=...."
```

从段落中读取：

```
curl -k /services/server/httpsettings/proxysettings/proxyConfig
```

删除段落：

```
curl -k -X DELETE /services/server/httpsettings/proxysettings/proxyConfig
```

有关请求和响应的详细信息和示例，请参阅*《REST API 参考》*中的 server/httpsettings/proxysettings 和 server/httpsettings/proxysettings/proxyConfig。

将群集配置为和代理结合使用

要使用索引器群集或搜索头群集中的通信代理服务器，请更新 `server.conf` 中的以下其他设置。

```
[clustering]
register_replication_address = <IP address, or fully qualified machine/domain name. This is the address on which a slave will
be available for accepting replication data. This is useful in the cases where a slave host machine has multiple interfaces and
only one of them can be reached by another splunkd instance>
Only valid for mode=slave



[shclustering]
register_replication_address = <IP address, or fully qualified machine/domain name. This is the address on which a member will
be available for accepting replication data. This is useful in the cases where a member host machine has multiple interfaces
and only one of them can be reached by another splunkd instance.>
```

配置用于 Splunkd 的 HTTP 代理服务器时的最佳实践

您可以为 Splunkd 设置 HTTP 代理服务器，这样 Splunkd 产生的所有 HTTP/S 流量都会通过代理服务器。

须知要点

1.Splunk 仅支持非 TLS 代理。不支持直接在 HTTPS 上侦听的代理服务器。

2.验证代理设置的准确性，确保它们符合组织的网络政策。

3.有关代理服务器的性能问题，请参阅下方的性能调整提示。

用 Apache 服务器进行性能调整

如果您有大量客户端通过代理服务器通信，您可能会看到对这些客户端的性能影响。如果出现性能影响：

- 检查代理服务器在 CPU 和内存资源方面是否配置充分。
- 使用其他多处理模块 (MPM) 并根据环境要求调整这些设置。请查看 Apache 文档获取其他信息。

```
ServerLimit  <Upper limit on configurable number of processes>
StartServers  <Number of child server processes created at startup>
MaxRequestWorkers  <Maximum number of connections that will be processed simultaneously>
MinSpareThreads  <Minimum number of idle threads available to handle request spikes>
MaxSpareThreads  <Maximum number of idle threads>
ThreadsPerChild  <Number of threads created by each child process>
```

Squid 服务器的性能配置文件

如果您有大量客户端通过代理服务器通信，您可能会看到对这些客户端的性能影响。确保代理服务器在 CPU 和内存资源方面配置充分。请查看 Squid 配置文件文档获取其他信息。

Splunk Web 与反向代理配置结合使用

Splunk Web 可放在反向代理配置类型的代理后面。如果您将 Splunk Web 托管到未将 Splunk Web 放置于代理根的代理中，则可能需要在 `$SPLUNK_HOME/etc/system/local/web.conf` 中配置 `root_endpoint` 设置。

比如说，如果您的代理在 "yourhost.com:9000/splunk" 托管 Splunk Web，则 `root_endpoint` 应该设置为 `/splunk`。

注意：“应用管理器”不支持用于代理服务器，如果您使用带有 Splunk Web 的代理服务器，您必须手动下载和更新应用。

典型的反向代理配置

例如，Splunk Web 通过 `http://splunk.example.com:8000/lzone` 而不是 `http://splunk.example.com:8000/` 进行访问。

要启用此行为，请在 `web.conf`

```
root_endpoint=/lzone
```

有关 Apache 代理服务器，您将通过在 `httpd.conf` 中将其映射来显示给代理。请查看文档获取其他信息。

```
# Maps remote servers into the local server URL-space
ProxyPass /lzone http://splunkweb.splunk.com:8000/lzone

#Adjusts the URL in HTTP response headers sent from a reverse proxied server
ProxyPassReverse /lzone http://splunkweb.splunk.com:8000/lzone
```

认识 Splunk AMI

关于 Splunk Enterprise AMI

Splunk Enterprise 可作为 Amazon Web Services 市场中的 Amazon Machine Image。

Splunk Enterprise AMI 是什么？

Splunk Enterprise AMI 是由运行在 Amazon Linux 上的 Splunk Enterprise 组成的 Amazon Machine Image。

图片含 Splunk Enterprise Trial 许可证。要了解许可证功能和时间限制，请参阅“Splunk Enterprise 许可证的类型”。

通过 1-click 获得 Splunk Enterprise AMI

1. 在 AWS 市场中选择 Splunk Enterprise AMI。
2. 在“概览”选项卡中，选择“继续订阅”。
3. 一旦订阅授权完成，选择“继续配置”。
4. 确认 Splunk Enterprise 版本和所选区域。选择“继续启动”。
5. 在“启动此软件”页面中：
    1. 选择 EC2 实例类型。选择拥有足够存储空间和资源可以支持您的用例的实例类型。有关更多信息，请参阅*容量规划手册*中的“适用于 Splunk Enterprise 容量规划介绍”。
    2. 在“安全组设置”中，选择一个安全组。
    3. 在“密钥对设置”中，选择或创建一个密钥对。
6. 选择“启动”
7. 记下在您选择的安全组中打开的端口。典型的端口包括：8089（Splunk Enterprise 管理）、8000（Splunk Web)、9997（Splunk 转发器侦听器）、22（SSH）和 443（SSL/HTTPS)。有关开放端口和安全的更多信息，请参阅*《确保 Splunk Enterprise 安全》*中的“关于确保 Splunk 软件安全”和“如何保护和强化 Splunk 软件安装”。

使用 Splunk Enterprise AMI 启动

如果您已经在 AWS 市场上启动 Splunk Enterprise AMI 的副本，那么您将拥有一个以 Splunk 用户身份运行的 Splunk Enterprise 实例。Splunk Enterprise 服务将在计算机启动时启动。

查找 Splunk Web

1. 在您的 EC2 管理控制台中，查找运行 Splunk Enterprise 的实例。记下实例 ID 和公共 IP 地址。
2. 将公共 IP 粘贴到新的浏览器选项卡中。先不要按 Enter 键。
    1. 将 Splunk Web 端口附加到 IP 地址结尾。示例：http://$aws_public_ip:8000
    2. 按 Enter 键。
3. 使用默认 AMI 凭据登录 Splunk Enterprise：
    1. 对于 Splunk Enterprise 版本 7.2.5 及更高版本：
        1. 用户名： `admin`
        2. 密码： `SPLUNK-$instance id$`
        3. 建议您登录后更改密码。
    2. 对于较旧的 Splunk Enterprise 版本：
        1. 用户名： `admin`
        2. 密码： `$instance id$`
        3. 在下一屏幕中，设置新密码。

下一个任务

- 遵循搜索教程，了解如何运行简单搜索并通过 Splunk Enterprise 中的数据生成报告。
- 在 Amazon Elastic Compute Cloud 文档的 Connect to your Linux instance（连接到您的 Linux 实例）中了解如何使用 SSH 访问您的 AMI 实例文件系统。
- 在《知识管理器》手册中了解 Splunk Enterprise 知识对象。
- 有关 Splunk Enterprise 中的任务概述以及您可以在何处找到更多相关信息，请参阅*《管理员手册》*中的“Splunk 管理：更多内容”。

升级

升级 Splunk Enterprise 版本

请参见*安装手册*中的“如何升级 Splunk”。开始升级之前，务必要运行备份。

升级 AWS 存储容量

请参阅有关 Amazon EBS 的 AWS 文档。

升级 AWS 计算容量

请参阅有关 Amazon EC2 的 AWS 文档。

获取帮助

要查找社区资源并获取帮助，请参阅“Splunk 社区入门”。要购买 Splunk Enterprise 许可证和支持，请联系 sales@splunk.com。

配置文件参考

alert_actions.conf

以下为 alert_actions.conf 的规范和示例文件。

alert_actions.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure global saved search actions in the alert_actions.conf file.
# Saved searches are configured in the savedsearches.conf file.
#
# There is an alert_actions.conf file in the $SPLUNK_HOME/etc/system/default/
# directory. Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name
# alert_actions.conf in the $SPLUNK_HOME/etc/system/local/ directory.
# Then add the specific settings that you want to customize to the local
# configuration file.
# For examples, see alert_actions.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top
#    of the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, settings are combined. In the case of
#    multiple definitions of the same setting, the last definition in the
#    file wins.
#  * If a setting is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.

maxresults = <integer>
* The global maximum number of search results sent through alerts.
* Default: 100

hostname = [protocol]<host>[:<port>]
* The hostname in the web link (URL) that is sent in alerts.
* This value accepts two forms:
  * hostname
       examples: splunkserver, splunkserver.example.com
  * protocol://hostname:port
       examples: http://splunkserver:8000, https://splunkserver.example.com:443
* When this value is a hostname, the protocol and port that
  are configured in the Splunk platform are used to construct the base of
  the URL.
* When this value begins with 'http://', it is used verbatim.
```

```
  NOTE: This means the correct port must be specified if it is not
  the default port for http or https.
* This is useful in cases when the Splunk server is not aware of
  how to construct an externally referenceable URL, such as SSO
  environments, other proxies, or when the Splunk server hostname
  is not generally resolvable.
* Default: The current hostname provided by the operating system,
  or if that fails, "localhost".

ttl = <integer>[p]
* The minimum time to live, in seconds, of the search artifacts,
  if this action is triggered.
* If 'p' follows '<integer>', then '<integer>' is the number of scheduled periods.
* If no actions are triggered, the ttl for the artifacts are determined
  by the 'dispatch.ttl' setting in the savedsearches.conf file.
* Default: 10p
* Default (for email, rss)                    : 86400 (24 hours)
* Default (for script)                        :   600 (10 minutes)
* Default (for summary_index, populate_lookup):   120 (2 minutes)

maxtime = <integer>[m|s|h|d]
* The maximum amount of time that the execution of an action is allowed to
  take before the action is aborted.
* Use the d, h, m and s suffixes to define the period of time:
  d = day, h = hour, m = minute and s = second.
  For example: 5d means 5 days.
* Default (for all stanzas except 'rss': 5m
* Default (for the 'rss' stanza): 1m

track_alert = <boolean>
* Whether or not the execution of this action signifies a trackable alert.
* Default: 0 (false).

command = <string>
* The search command (or pipeline) that is responsible for executing
  the action.
* Generally the command is a template search pipeline which is realized
  with values from the saved search. To reference saved search
  field values enclose the values in dollar signs ($).
* For example, to reference the saved search name, use "$name$". To
  reference the search, use "$search$"

is_custom = <boolean>
* Whether or not the alert action is based on the custom alert
  actions framework and is supposed to be listed in the search UI.

payload_format = [xml|json]
* Configure the format the alert script receives the configuration via
  STDIN.
* Default: xml

label = <string>
* For custom alert actions, defines the label that is shown in the UI.
  If not specified, the stanza name is used instead.
* Default: The stanza name for the custom alert action.

description = <string>
* For custom alert actions, specifies the description shown in the UI.

icon_path = <string>
* For custom alert actions, defines the icon shown in the UI for the alert
  action. The path refers to the 'appserver/static' directory in the app
  that the alert action is defined in.

forceCsvResults = [auto|true|false]
* If set to "true", any saved search that includes this action
  always stores results in CSV format, instead of the internal SRS format.
* If set to "false", results are always serialized using the internal SRS format.
* If set to "auto", results are serialized as CSV if the 'command' setting
```

```
  in this stanza starts with "sendalert" or contains the string
  "$results.file$".
* Default: auto

alert.execute.cmd = <string>
* For custom alert actions, explicitly specifies the command to run
  when the alert action is triggered. This refers to a binary or script
  in the 'bin' folder of the app that the alert action is defined in, or to a
  path pointer file, also located in the 'bin' folder.
* If a path pointer file (*.path) is specified, the contents of the file
  is read and the result is used as the command to run.
  Environment variables in the path pointer file are substituted.
* If a python (*.py) script is specified, it is prefixed with the
  bundled python interpreter.

alert.execute.cmd.arg.<n> = <string>
* Provide additional arguments to the 'alert.execute.cmd'.
  Environment variables are substituted.

python.version = {default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.

################################################################################
# EMAIL: these settings are prefaced by the [email] stanza name
################################################################################
```

[email]

```
* Set email notification options under this stanza name.
* Follow this stanza name with any number of the following
  setting/value pairs.
* If you do not specify an entry for each setting, the default value is used.

from = <string>
* Email address from which the alert originates.
* Default: splunk@$LOCALHOST

to      = <string>
* The To email address receiving the alert.

cc      = <string>
* Any courtesy copy (cc) email addresses receiving the alert.

bcc     = <string>
* Any blind courtesy copy (bcc) email addresses receiving the alert.

allowedDomainList = <comma-separated list of domains>
* Optional. This setting specifies a list of domains to which users are allowed
  to send email.
* If this setting is set for an alert, and a user adds an address with a domain
  not on this list, the Splunk software removes that address from the
  recipients list.
* 'action.email.allowedDomainList' in savedsearches.conf will not be honored.
* No default.

message.report = <string>
* Specify a custom email message for scheduled reports.
* Includes the ability to reference settings from the result,
  saved search, or job.

message.alert = <string>
* Specify a custom email message for alerts.
* Includes the ability to reference settings from result,
  saved search, or job.

subject = <string>
* Specify an alternate email subject if useNSSubject is "false".
* Default: SplunkAlert-<savedsearchname>

subject.alert = <string>
* Specify an alternate email subject for an alert.
* Default: SplunkAlert-<savedsearchname>

subject.report = <string>
* Specify an alternate email subject for a scheduled report.
* Default: SplunkReport-<savedsearchname>

useNSSubject = <boolean>
* Whether or not to use the namespaced subject, for example, subject.report or the
  subject.
* Default: 0

escapeCSVNewline = <boolean>
* Whether to escape newlines as "\r\n" or "\n" or not in emailed CSV files.
* Default: true

footer.text = <string>
* Specify an alternate email footer.
* Default: "If you believe you've received this email in error,
    please see your Splunk administrator.\r\n\r\nsplunk > the engine
    for machine data."

format = [table|raw|csv]
* Specify the format of inline results in the email.
* Previously accepted values "plain" and "html" are no longer respected
  and equate to "table".
* To make emails plain or HTML use the 'content_type' setting.
* Default: table

include.results_link = <boolean>
* Whether or not to include a link to the results.

include.search = <boolean>
* Whether or not to include the search that caused an email to be sent.

include.trigger = <boolean>
* Whether or not to show the trigger condition that caused the alert to
  fire.

include.trigger_time = <boolean>
* Whether or not to show the time that the alert was fired.

include.view_link = <boolean>
* Whether or not to show the title and a link to enable the user to edit
  the saved search.

content_type = [html|plain]
* Specify the content type of the email.
* When set to "plain", sends email as plain text.
* When set to "html", sends email as a multipart email that includes both
  text and HTML.

sendresults = <boolean>
* Whether or not the search results are included in the email. The
  results can be attached or inline, see inline (action.email.inline)
* Default: 0 (false)

inline = <boolean>
* Whether or not the search results are contained in the body of the alert
  email.
* If the events are not sent inline, they are attached as a CSV file.
* Default:  0 (false).
```

```
priority = [1|2|3|4|5]
* Set the priority of the email as it appears in the email client.
* Value mapping: 1 highest, 2 high, 3 normal, 4 low, 5 lowest.
* Default: 3

mailserver = <host>[:<port>]
* You must have a Simple Mail Transfer Protocol (SMTP) server available
  to send email. This is not included with the Splunk instance.
* Specifies the SMTP mail server to use when sending emails.
* <host> can be either the hostname or the IP address.
* Optionally, specify the SMTP <port> that the Splunk instance should connect to.
* When the 'use_ssl' setting (see below) is set to 1 (true), you
  must specify both <host> and <port>.
  (Example: "example.com:465")
* Default: $LOCALHOST:25

use_ssl    = <boolean>
* Whether to use SSL when communicating with the SMTP server.
* When set to 1 (true), you must also specify both the server name or
  IP address and the TCP port in the 'mailserver' setting.
* Default: 0 (false)

use_tls    = <boolean>
* Whether or not to use TLS (transport layer security) when
  communicating with the SMTP server (starttls).
* Default: 0 (false)

auth_username   = <string>
* The username to use when authenticating with the SMTP server. If this is
  not defined or is set to an empty string, no authentication is attempted.
  NOTE: your SMTP server might reject unauthenticated emails.
* Default: an empty string

auth_password   = <password>
* The password to use when authenticating with the SMTP server.
  Normally this value is set when editing the email settings, however
  you can set a clear text password here and it is encrypted on the
  next Splunk software restart.
* Default: an empty string

sendpdf = <boolean>
* Whether or not to create and send the results as a PDF file.
* Default: 0 (false)

sendcsv = <boolean>
* Whether or not to create and send the results as a CSV file.
* Default: 0 (false)

allow_empty_attachment = <boolean>
* Whether or not the Splunk software attaches a CSV or PDF file to
  an alert email even when the triggering alert search does not have
  results.
* This setting sets a default for alerts that use the email alert
  action.  Override it for specific alerts by setting
  'action.email.allow_empty_attachment' for those alerts in
  'savedsearches.conf'.
* Default: false

pdfview = <string>
* The name of the view to send as a PDF file.

reportPaperSize = [letter|legal|ledger|a2|a3|a4|a5]
* Default paper size for PDFs.
* Accepted values: letter, legal, ledger, a2, a3, a4, a5
* Default: letter

reportPaperOrientation = [portrait|landscape]
* The orientation of the paper.
* Default: portrait

reportIncludeSplunkLogo = <boolean>
* Whether or not to include a Splunk logo in Integrated PDF Rendering.
* Default: 1 (true)

reportCIDFontList = <string>
* Specify the set (and load order) of CID fonts for handling
  Simplified Chinese(gb), Traditional Chinese(cns),
  Japanese(jp), and Korean(kor) in Integrated PDF Rendering.
* Specify in a space-separated list.
* If multiple fonts provide a glyph for a given character code, the glyph
  from the first font specified in the list is used.
* To skip loading any CID fonts, specify the empty string.
* Default: gb cns jp kor

reportFileName = <string>
* Specify the name of the attached PDF or CSV file.
* Default: $name$-$time:%Y-%m-%d$

width_sort_columns = <boolean>
* Whether or not columns should be sorted from least wide
  to most wide, left to right.
* Valid only if "format=text".
* Default: true

preprocess_results = <search-string>
* Supply a search string to preprocess results before emailing the results.
  Usually the preprocessing consists of filtering out unwanted internal fields.
* Default: an empty string (no preprocessing)

pdf.footer_enabled = [1 or 0]
  * Set whether or not to display a footer in the PDF.
  * Default: 1 (true)

pdf.header_enabled = [1 or 0]
  * Set whether or not to display a header in the PDF.
  * Default: 1 (true)

pdf.logo_path = <string>
* Define the PDF logo using the syntax <app>:<path-to-image>.
* If set, the PDF is rendered with this logo instead of the Splunk logo.
* If not set, the Splunk logo is used by default.
* The logo is read from the
  $SPLUNK_HOME/etc/apps/<app>/appserver/static/<path-to-image>
  path if <app> is provided.
* The current app is used if <app> is not provided.
* Default: the Splunk logo

pdf.header_left = [logo|title|description|timestamp|pagination|none]
* Set which element is displayed on the left side of header.
* Nothing is displayed if this option is not set, or set to "none".
* Default: none

pdf.header_center = [logo|title|description|timestamp|pagination|none]
* Set which element is displayed on the center of header.
* Nothing is displayed if this option is not set, or set to "none".
* Default: description

pdf.header_right = [logo|title|description|timestamp|pagination|none]
* Set which element is displayed on the right side of header.
* Nothing is displayed if this setting is not set, or set to "none".
* Default: none

pdf.footer_left = [logo|title|description|timestamp|pagination|none]
* Set which element is displayed on the left side of footer.
* Nothing is displayed if this setting is not set, or set to "none".
* Default: logo
```

```
pdf.footer_center = [logo|title|description|timestamp|pagination|none]
* Set which element is displayed on the center of footer.
* Nothing is displayed if this setting is not set, or set to "none".
* Default: title

pdf.footer_right = [logo|title|description|timestamp|pagination|none]
* Set which element is displayed on the right side of footer.
* Nothing is displayed if this setting is not set, or set to "none".
* Default: timestamp,pagination

pdf.html_image_rendering = <boolean>
* Whether or not images in HTML should be rendered in the PDF file.
* If rendering images in HTML breaks the PDF for whatever reason,
  change this setting to "false". The old HTML rendering is used.
* Default: true

sslVersions = <string>
* Comma-separated list of SSL versions to support.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* The special version "*" selects all supported versions.  The version "tls"
  selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list but does nothing.
* When configured in FIPS mode, ssl3 is always disabled regardless
  of this configuration.
* Used exclusively for the email alert action and the sendemail search command.
* The default can vary. See the 'sslVersions' setting in the
  $SPLUNK_HOME/etc/system/default/alert_actions.conf file for the current default.

sslVerifyServerCert = <boolean>
* If set to "true", make sure that the server that is being connected to is
  a valid server (authenticated). Both the common name and the alternate
  name of the server are then checked for a match if they are specified in this
  configuration file. A certificate is considered verified if either is matched.
* If set to "true", make sure 'server.conf/[sslConfig]/sslRootCAPath'
  has been set correctly.
* Used exclusively for the email alert action and the sendemail search command.
* Default: false

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* Optional.
* Check the common name of the server's certificate against this list of names.
* 'sslVerifyServerCert' must be set to "true" for this setting to work.
* Used exclusively for the email alert action and the sendemail search command.
* Default: no common name checking is performed

sslAltNameToCheck =  <alternateName1>, <alternateName2>, ...
* Optional.
* Check the alternate name of the server's certificate against this list of names.
* If there is no match, assume that Splunk is not authenticated against this
  server.
* 'sslVerifyServerCert' must be set to "true" for this setting to work.
* Used exclusively for the email alert action and the sendemail search command.
* Default: no alternate name checking is performed

cipherSuite = <cipher suite string>
* If set, the specified cipher string is used for the communication with
  with the SMTP server.
* Used exclusively for the email alert action and the sendemail search command.
* The default can vary. See the 'cipherSuite' setting in the
* $SPLUNK_HOME/etc/system/default/alert_actions.conf file for the current default.

################################################################################
# RSS: these settings are prefaced by the [rss] stanza
################################################################################
```

[rss]

```
* Set RSS notification options under this stanza name.
* Follow this stanza name with any number of the following setting/value pairs.
* If you do not specify an entry for each setting, the default value is used.

items_count = <number>
* The number of saved RSS feeds.
* Cannot be more than 'maxresults' (in the global settings).
* Default: 30

################################################################################
# script: Used to configure any scripts that the alert triggers.
################################################################################
```

[script]

```
filename = <string>
* The filename, with no path, of the script to trigger.
* The script should be located in: $SPLUNK_HOME/bin/scripts/
* For system shell scripts on UNIX, or .bat or .cmd on Windows, there
  are no further requirements.
* For other types of scripts, the first line should begin with a '#!' marker,
  followed by a path to the interpreter that runs the script.
  * Example: #!C:\Python27\python.exe
* Default: an empty string

################################################################################
# lookup: These settings are prefaced by the [lookup] stanza. They enable the
          Splunk software to write scheduled search results to a new or existing
          CSV lookup file.
################################################################################
```

[lookup]

```
filename = <string>
* The filename, with no path, of the CSV lookup file. Filename must end with
  ".csv".
* If this file does not yet exist, Splunk software creates the file on
  the next scheduled run of the search. If the file currently exists, the
  file is overwritten on each run of the search unless "append=1".
* The file is placed in the same path as other CSV lookup files:
  $SPLUNK_HOME/etc/apps/search/lookups.
* Default: an empty string

append = <boolean>
* Whether or not to append results to the lookup file defined for the
  'filename' setting.
* Default: 0 (false)

################################################################################
# summary_index: these settings are prefaced by the [summary_index] stanza
################################################################################
```

[summary_index]

```
inline = <boolean>
* Whether or not the summary index search command is run as part of the
  scheduled search or as a follow-on action. When the results of the scheduled
  search are expected to be large, keep the default setting "inline=true".
* Default: 1 (true)

_name = <string>
* The name of the summary index where the events are written to.
* Default: summary
```

```
################################################################################
# summary_metric_index: these settings are prefaced by the [summary_metric_index] stanza
################################################################################
```

[summary_metric_index]

```
inline = <boolean>
* Whether or not the summary index search command is run as part of the
  scheduled search or as a follow-on action. When the results of the scheduled
  search are expected to be large, keep the default setting "inline=true".
* Default: 1 (true)

_name = <string>
* The name of the summary index where the events are written to.
* Default: summary

################################################################################
# populate_lookup: these settings are prefaced by the [populate_lookup] stanza
################################################################################
```

[populate_lookup]

```
dest = <string>
* Name of the lookup table to populate (stanza name in the transforms.conf file),
  or the lookup file path where you want the data written to. If a path is
  specified it MUST be relative to $SPLUNK_HOME and a valid lookups
  directory.
  For example: "etc/system/lookups/<file-name>" or
  "etc/apps/<app>/lookups/<file-name>"
* The user executing this action MUST have write permissions to the app for
  this action to work properly.
```

[<custom_alert_action>]

alert_actions.conf.example

```
#   Version 8.2.0
#
# This is an example alert_actions.conf.  Use this file to configure alert
# actions for saved searches.
#
# To use one or more of these configurations, copy the configuration block into
# alert_actions.conf in $SPLUNK_HOME/etc/system/local/.  You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[email]
# keep the search artifacts around for 24 hours
ttl = 86400

# if no @ is found in the address the hostname of the current machine is appended
from = splunk

format = table

inline = false

sendresults = true
```

```
hostname = CanAccessFromTheWorld.com

command = sendemail "to=$action.email.to$" "server=$action.email.mailserver{default=localhost}$"
"from=$action.email.from{default=splunk@localhost}$" "subject=$action.email.subject{recurse=yes}$"
"format=$action.email.format{default=csv}$" "sssummary=Saved Search [$name$]: $counttype$($results.count$)"
"sslink=$results.url$" "ssquery=$search$" "ssname=$name$" "inline=$action.email.inline{default=False}$"
"sendresults=$action.email.sendresults{default=False}$" "sendpdf=$action.email.sendpdf{default=False}$"
"pdfview=$action.email.pdfview$" "searchid=$search_id$" "graceful=$graceful{default=True}$"
maxinputs="$maxinputs{default=1000}$" maxtime="$action.email.maxtime{default=5m}$"
_validate-1 = action.email.sendresults, validate( is_bool('action.email.sendresults'), "Value of argument
'action.email.sendresults' must be a boolean")

use_tls = 1
sslVersions = tls1.2
sslVerifyServerCert = true
sslCommonNameToCheck = host1, host2

[rss]
# at most 30 items in the feed
items_count=30

# keep the search artifacts around for 24 hours
ttl = 86400

command = createrss "path=$name$.xml" "name=$name$" "link=$results.url$" "descr=Alert trigger: $name$,
results.count=$results.count$ " "count=30" "graceful=$graceful{default=1}$" maxtime="$action.rss.maxtime{default=1m}$"

[summary_index]
# don't need the artifacts anytime after they're in the summary index
ttl = 120

# make sure the following keys are not added to marker (command, ttl, maxresults, _*)
command = summaryindex addtime=true index="$action.summary_index._name{required=yes}$" file="$name$_$#random$.stash"
name="$name$" marker="$action.summary_index*{format=$KEY=\\\"$VAL\\\",
key_regex="action.summary_index.(?!(?:command|maxresults|ttl|(?:_.*))$)(.*)"}$"

[summary_metric_index]
# don't need the artifacts anytime after they're in the summary index
ttl = 120

# make sure that "mcollect" is the SPL command and has the option "split=allnums"
command = mcollect index="$action.summary_index._name{required=yes}$" file="$name_hash$_$#random$.stash" name="$name$"
marker="$action.summary_index*{format=$KEY=\\\"$VAL\\\",
key_regex="action.summary_index.(?!(?:command|forceCsvResults|inline|maxresults|maxtime|python\\.version|ttl|track
_alert|(?:_.*))$)(.*)"}$" split=allnums $action.summary_index._metric_dims$

[custom_action]
# flag the action as custom alert action
is_custom = 1

# configure appearance in the UI
label = Custom Alert Action
description = Triggers a custom alert action
icon_path = custom_alert.png

# override default script execution
# java.path is a path pointer file in <app>/bin pointing to the actual java executable
alert.execute.cmd = java.path
alert.execute.cmd.arg.1 = -jar
alert.execute.cmd.arg.2 = $SPLUNK_HOME/etc/apps/myapp/bin/custom.jar
alert.execute.cmd.arg.3 = --execute
```

app.conf

以下为 app.conf 的规范和示例文件。

app.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file maintains the state of a given app in the Splunk platform. It can
# also be used to customize certain aspects of an app.
#
# An app.conf file can exist within each app on the Splunk platform.
#
# You must restart the Splunk platform to reload manual changes to app.conf.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[author=<name>]

```
email = <email-address>
company = <company-name>
```

[id]

```
group = <group-name>
name = <app-name>
version = <version-number>
```

[launcher]

```
* Settings in this stanza determine how an app appears in the Launcher in the Splunk
  platform and online on Splunkbase.

# Global Settings:

remote_tab = <boolean>
* Determines whether the Launcher interface connects to apps.splunk.com
  (Splunkbase).
* This setting only applies to the Launcher app. Do not set it in any
  other app.
* Default: true

# Per-application Settings:

version = <string>
* Version numbers are a number followed by a sequence of dots and numbers.
* The best practice for version numbers for releases is to use three digits
  formatted as Major.Minor.Revision.
* Pre-release versions can append a single-word suffix like "beta" or
  "preview".
* Use lower case and no spaces when you designate a pre-release version.
* Example versions:
  * 1.2.0
  * 3.2.1
  * 11.0.34
  * 2.0beta
  * 1.3beta2
  * 1.0preview

description = <string>
* A short explanatory string that appears below the title of the app in
```

```
  Launcher.
* Limit descriptions to 200 characters or less for user readability.

author = <string>
* For apps that you intend to upload to Splunkbase, list the username of your
  splunk.com account.
* For apps that are for internal use only, include your full name and/or contact
  info, such as your email address.

# Your app can include an icon which appears next to your app in Launcher
# and on Splunkbase. You can also include a screenshot, which shows up on
# Splunkbase when the user views information about your app before downloading it.
# If you include an icon file, the file name must end with "Icon" before the
# file extension and the "I" must be capitalized. For example, "mynewIcon.png".
# Screenshots are optional.
#
# There is no setting in app.conf for screenshot or icon images.
# Splunk Web places files you upload with your app into
# the <app_directory>/appserver/static directory.
# These images do not appear in your app.
#
# Move or place icon images in the <app_directory>/static directory.
# Move or place screenshot images in the <app_directory>/default/static directory.
# Launcher and Splunkbase automatically detect the images in those locations.
#
# For example:
#
#     <app_directory>/static/appIcon.png    (the capital "I" is required!)
#     <app_directory>/default/static/screenshot.png
#
# An icon image must be a 36px by 36px PNG file.
# An app screenshot must be a 623px by 350px PNG file.
```

[package]

```
* This stanza defines upgrade-related metadata that streamlines app upgrade
  to future versions of Splunk Enterprise.

id = <string>
* Omit this setting for apps that are for internal use only and not intended
  for upload to Splunkbase.
* id is required for all new apps that you upload to Splunkbase. Future versions of
  Splunk Enterprise will use appid to correlate locally-installed apps and the
  same app on Splunkbase (e.g. to notify users about app updates).
* id must be the same as the folder name in which your app lives in
  $SPLUNK_HOME/etc/apps.
* id must adhere to these cross-platform folder name restrictions:
  * must contain only letters, numbers, "." (dot), and "_" (underscore)
    characters.
  * must not end with a dot character.
  * must not be any of the following names: CON, PRN, AUX, NUL,
      COM1, COM2, COM3, COM4, COM5, COM6, COM7, COM8, COM9,
      LPT1, LPT2, LPT3, LPT4, LPT5, LPT6, LPT7, LPT8, LPT9

check_for_updates = <boolean>
* Determines whether Splunk Enterprise checks Splunkbase for updates to this
  app.
* Default: true

show_upgrade_notification = <boolean>
* Determines whether Splunk Enterprise shows an upgrade notification in Splunk
  Web for this app.
* Default: false
```

[install]

```
* This stanza defines install settings for this app.

state = disabled | enabled
* Determines whether an app is disabled or enabled on the Splunk platform.
* If an app is disabled, its configurations are ignored.
* Default: enabled

state_change_requires_restart = <boolean>
* Determines whether changing an app's state ALWAYS requires a restart of Splunk
  Enterprise.
* State changes include enabling or disabling an app.
* When set to true, changing an app's state always requires a restart.
* When set to false, modifying an app's state might or might not require a
  restart, depending on what the app contains. This setting cannot be used to
  avoid all restart requirements.
* Default: false

is_configured = <boolean>
* Stores an indication of whether the application's custom setup has been
  performed.
* Default: false

build = <integer>
* Required.
* Must be a positive integer.
* Increment this whenever you change files in appserver/static.
* Every release must change both 'version' and 'build' settings.
* Ensures browsers don't use cached copies of old static files
  in new versions of your app.
* 'build' is a single integer, unlike 'version' which can be a complex string,
  such as 1.5.18.

allows_disable = <boolean>
* Determines whether an app allows itself to be disabled.
* Default: true

install_source_checksum = <string>
* Records a checksum of the tarball from which a given app was installed.
* Splunk Enterprise automatically populates this value upon install.
* Do not set this value explicitly within your app!

install_source_local_checksum = <string>
* Records a checksum of the tarball from which a given app's local configuration
  was installed.
* Splunk Enterprise automatically populates this value upon install.
* Do not set this value explicitly within your app!

python.version = {default|python|python2|python3}
* When 'installit.py' exists, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.
```

[triggers]

```
* This stanza controls reloading of custom configuration files included in
  the app (4.2+ versions only).
* Include this stanza if your app includes custom configuration files.

# Conf-level reload triggers
reload.<conf_file_name> = [ simple | never | rest_endpoints | access_endpoints <handler_url> | http_get <handler_url> |
http_post <handler_url> ]
* Splunk Enterprise reloads app configuration after every app-state change:
  install, update, enable, and disable.
* If your app does not use a custom config file (e.g.myconffile.conf)
  then it does not require a [triggers] stanza. This is because
  $SPLUNK_HOME/etc/system/default/app.conf includes a [triggers]
  stanza, which automatically reloads config files used by Splunk Enterprise.
* If your app uses a custom config file (e.g. myconffile.conf) and you want to
  avoid unnecessary Splunk Enterprise restarts, you can add a reload value in
  the [triggers] stanza.
* If you do not include [triggers] settings and your app uses a custom config
  file, Splunk Enterprise requires a restart after every state change.
* If set to "simple", Splunk Enterprise takes no special action
  to reload your custom configuration file.
* If you specify "access_endpoints" with a URL to a REST endpoint, Splunk
  Enterprise calls its _reload() method at every app state change.
* If you specify "http_get" with a URL to a REST endpoint, Splunk Enterprise
  simulates an HTTP GET request against the URL at every app state change.
* If you specify "http_post" with a URL to a REST endpoint, Splunk Enterprise
  simulates an HTTP POST request against the URL at every app state change.
* If set to "never", Splunk Enterprise initiates a restart after any state change.
* "rest_endpoints" is reserved for Splunk Enterprise internal use for reloading
  restmap.conf.

# Stanza-level reload triggers
reload.<conf_file_name>.<conf_stanza_prefix> = [ simple | never | access_endpoints <handler_url> | http_get <handler_url> |
http_post <handler_url> ]
* Stanza-level reload triggers for indexer-cluster slaves to reload only the
  config file stanzas that are changed in the newly pushed cluster bundle.
* With the stanza level reload triggers, we can have more granular control over
  which subset of existing reload handlers to invoke depending on which stanzas
  of a given config file have changed in the newly pushed cluster bundle. See
  example below for more information.
* Stanza level reload trigger values operate identically to conf-level reload
  trigger values, i.e. "simple", "never","access_endpoints", "http_get", "http_post".
* For any stanza of <conf_file_name> that does NOT have a corresponding stanza-level
  reload trigger listed under the [triggers] section of app.conf, cluster slave
  will fallback to the "rolling restart behavior" upon detecting changes of those
  "missing" stanzas in the newly pushed cluster bundle.
* NOTE: This setting is ONLY used by cluster slave indexers and ONLY supported
  by inputs.conf.
```

[shclustering]

```
deployer_lookups_push_mode = preserve_lookups | always_preserve | always_overwrite
* Determines the deployer_lookups_push_mode for the 'splunk apply
  shcluster-bundle' command.
* If set to "preserve_lookups", the 'splunk apply shcluster-bundle' command
  honors the '-preserve-lookups' option as it appears on the command line. If
  '-preserve-lookups' is flagged as "true", then lookup tables for this app are
  preserved. Otherwise, lookup tables are overwritten.
* If set to "always_preserve", the 'splunk apply shcluster-bundle' command ignores
  the '-preserve-lookups' option as it appears on the command line and lookup
  tables for this app are always preserved.
* If set to "always_overwrite", the 'splunk apply shcluster-bundle' command
  ignores the '-preserve-lookups' option as it appears on the command line and
  lookup tables for this app are always overwritten.
* Default: preserve_lookups

deployer_push_mode = full | merge_to_default | local_only | default_only
* How the deployer pushes the configuration bundle to search head cluster
  members.
* If set to "full": Bundles all of the app's contents located in default/,
  local/, users/<app>/, and other app subdirs. It then pushes the bundle to
  the members. When applying the bundle on a member, the non-local and
  non-user configurations from the deployer's app folder are copied to the
  member's app folder, overwriting existing contents. Local and user
  configurations are merged with the corresponding folders on the member,
  such that member configuration takes precedence.  This option should not
  be used for built-in apps, as overwriting the member's built-in apps can
  result in adverse behavior.
* If set to "merge_to_default": Merges the local and default folders into
```

```
  the default folder and pushes the merged app to the members. When
  applying the bundle on a member, the default configuration on the member
  is overwritten. User configurations are copied and merged with the user
  folder on the member, such that the existing configuration on the member
  takes precedence. In versions 7.2 and prior, this was the only behavior.
* If set to "local_only": This option bundles the app's local directory (and its
  metadata) and pushes it to the cluster. When applying the bundle to a
  member, the local configuration from the deployer is merged with the
  local configuration on the member, such that the member's existing
  configuration takes precedence. Use this option to push the local
  configuration of built-in apps, such as search. If used to push an app
  that relies on non-local content (such as default/ or bin/), these
  contents must already exist on the member.
* If set to "default_only": Bundles all of the configuration files except
  for local and users/<app>/.  When applying the bundle on a member, the
  contents in the member's default folder are overwritten.
* Default (all apps except built-in apps): "merge_to_default"
* Default (built-in apps): "local_only"

#
# Set UI-specific settings for this app
#
```

[ui]

```
* This stanza defines UI-specific settings for this app.

is_visible = <boolean>
* Indicates if this app is visible/navigable as an app in Splunk Web.
* Apps require at least one view to be available in Splunk Web.

show_in_nav = <boolean>
* Determines whether this app appears in the global app dropdown.

is_manageable = <boolean>
* Support for this setting has been removed. It no longer has any effect.

label = <string>
* Defines the name of the app shown in Splunk Web and Launcher.
* Recommended length between 5 and 80 characters.
* Must not include "Splunk For" prefix.
* Label is required.
* Examples of good labels:
    IMAP Monitor
    SQL Server Integration Services
    FISMA Compliance

docs_section_override = <string>
* Defines override for auto-generated app-specific documentation links.
* If not specified, app-specific documentation link includes
  [<app-name>:<app-version>].
* If specified, app-specific documentation link includes
  [<docs_section_override>].
* This setting only applies to apps with documentation on the Splunk
  documentation site.

attribution_link = <string>
* URL that users can visit to find third-party software credits and attributions
  for assets the app uses.
* External links must start with http:// or https://.
* Values that do not start with http:// or https:// get interpreted as Quickdraw
  location strings and translated to internal documentation references.

setup_view = <string>
* Optional.
* Defines custom setup view found within the /data/ui/views REST endpoint.
```

[credentials_settings]

```
* This stanza controls credential-verification scripting (4.2+ versions only).
* Credential entries are superseded by passwords.conf from 6.3 onwards.
* While the entries here are still honored post-6.3, updates to these occur in
  passwords.conf, which overrides any values present here.

verify_script = <string>
* Optional setting.
* Command line to invoke to verify credentials used for this app.
* For scripts, the command line must include both the interpreter and the
  script for it to run.
    * Example: "$SPLUNK_HOME/bin/python" "$SPLUNK_HOME/etc/apps/<myapp>/bin/$MY_SCRIPT"
* The invoked program is communicated with over standard in / standard out via
  the same protocol as splunk scripted auth.
* Paths incorporating variable expansion or explicit spaces must be quoted.
  * For example, a path including $SPLUNK_HOME should be quoted, as likely
    will expand to C:\Program Files\Splunk

python.version = {default|python|python2|python3}
* This property is used only when verify_script begins with the canonical path
  to the Python interpreter, in other words, $SPLUNK_HOME/bin/python.  If any
  other path is used, this property is ignored.
* For Python scripts only, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.
```

[credential:<realm>:<username>]

```
password = <string>
* Password that corresponds to the given username for the given realm.
* Realm is optional.
* The password can be in clear text, but when saved from splunkd the
  password is always encrypted.
```

[diag]

```
* This stanza applies to diag app extensions, 6.4+ only.

extension_script = <filename>
* Setting this variable declares that this app puts additional information
  into the troubleshooting & support oriented output of the 'splunk diag'
  command.
* Must be a python script.
* Must be a simple filename, with no directory separators.
* The script must exist in the 'bin' subdirectory in the app.
* Full discussion of the interface is located on the Splunk developer portal.
  See http://dev.splunk.com/view/SP-CAAAE8H
* Default: not set (no app-specific data collection will occur).

data_limit = <positive integer>[b|kb|MB|GB]
* Defines a soft ceiling for the amount of uncompressed data that can be
  added to the diag by the app extension.
* Large diags damage the main functionality of the tool by creating data blobs
  too large to copy around or upload.
* Use this setting to ensure that your extension script does not accidentally
  produce far too much data.
* After data produced by this app extension reaches the limit, diag does not add
  any further files on behalf of the extension.
* After diag has finished adding a file which goes over this limit, all further files
  are not be added.
* Must be a positive number followed by a size suffix.
  * Valid suffixes: b: bytes, kb: kilobytes, mb: megabytes, gb: gigabytes
  * Suffixes are case insensitive.
* Default: 100MB

# Other diag settings

default_gather_lookups = <filename> [, <filename> ...]
* Set this variable to declare that the app contains lookups that diag must
  always gather by default.
* Essentially, if there are lookups which are useful for troubleshooting an
  app, and will never contain sensitive (user) data, add the lookups to this
  list so that they appear in generated diags for use when troubleshooting
  the app from customer diags.
* Any files in lookup directories that are not listed here are not gathered by
  default. You can override this behavior with the diag flag --include-lookups.
* This setting is new in Splunk Enterprise/Light version 6.5. Older versions
  gather all lookups by default.
* This does not override the size-ceiling on files in etc. Large lookups are
  still excluded unless the etc-filesize-limit is raised or disabled.
* This only controls files in the same app directory as this conf file.  For
  example, if you have an app directory in etc/slave-apps (index clustering),
  this setting must appear in etc/slave-apps/appname/default/app.conf or
  local/app.conf
* Additional lists can be created with default_gather_lookups-classname = ...
* Default: not set
```

app.conf.example

```
#   Version 8.2.0
#
# The following are example app.conf configurations. Configure properties for
# your custom application.
#
# There is NO DEFAULT app.conf.
#
# To use one or more of these configurations, copy the configuration block into
# app.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[launcher]
author=<author of app>
description=<textual description of app>
version=<version of app>

[triggers]
########## Conf-level reload triggers ##########
# Do not force a restart of Splunk Enterprise for state changes of MyApp
# Do not run special code to tell MyApp to reload myconffile.conf
# Apps with custom config files usually pick this option:
reload.myconffile = simple

# Do not force a restart of Splunk Enterprise for state changes of MyApp.
# Splunk Enterprise calls the /admin/myendpoint/_reload method in my custom
# EAI handler.
# Use this advanced option only if MyApp requires custom code to reload
# its configuration when its state changes
reload.myotherconffile = access_endpoints /admin/myendpoint

########## Stanza-level reload triggers ##########
# For any changed inputs.conf stanzas in the newly pushed cluster
# bundle that start with the "monitor" stanza prefix, e.g.
# [monitor://*], invoke the corresponding monitor input reload handler
# as specified, i.e. /data/inputs/monitor/_reload
```

```
#
# NOTE: The scripted input reload handler and the http input reload
# will NOT be invoked if the only changed inputs stanzas in the
# newly pushed cluster bundle are monitor inputs.
reload.inputs.monitor = access_endpoints /data/inputs/monitor
reload.inputs.script  = access_endpoints /data/inputs/script
reload.inputs.http    = access_endpoints /data/inputs/http
```

audit.conf

以下为 audit.conf 的规范和示例文件。

audit.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attributes and values you can use to configure
# auditing and event signing in audit.conf.
#
# There is NO DEFAULT audit.conf. To set custom configurations, place an
# audit.conf in $SPLUNK_HOME/etc/system/local/. For examples, see
# audit.conf.example.  You must restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top of the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, attributes are combined. In the case of multiple
#    definitions of the same attribute, the last definition in the file wins.
#  * If an attribute is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.

#########################################################################################
# KEYS: specify your public and private keys for encryption.
#########################################################################################

queueing = <boolean>
* Whether or not audit events are sent to the indexQueue.
* If set to "true", audit events are sent to the indexQueue.
* If set to "false", you must add an inputs.conf stanza to tail the
  audit log for the events reach your index.
* Default: true
```

audit.conf.example

```
#   Version 8.2.0
#
# This is an example audit.conf.  Use this file to configure auditing.
#
# There is NO DEFAULT audit.conf.
#
# To use one or more of these configurations, copy the configuration block into
# audit.conf in $SPLUNK_HOME/etc/system/local/.  You must restart Splunk to
# enable configurations.
```

```
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

authentication.conf

以下为 authentication.conf 的规范和示例文件。

authentication.conf.spec

```
#   Version 8.2.0
#
# This file contains possible settings and values for configuring
# authentication via authentication.conf.
#
# There is an authentication.conf file in $SPLUNK_HOME/etc/system/default/.  To
# set custom configurations, place an authentication.conf in
# $SPLUNK_HOME/etc/system/local/. For examples, see
# authentication.conf.example. You must restart the Splunk platform to enable
# configurations.
#
# To learn more about configuration files, including precedence, see
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles.
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top
#     of the file.
#   * Each .conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file wins.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

[authentication]
* Follow this stanza name with any number of the following setting/value
  pairs.

authType = [Splunk|LDAP|Scripted|SAML|ProxySSO]
* Specify which authentication system to use.
* Supported values: Splunk, LDAP, Scripted, SAML, ProxySSO.
* Default: Splunk

authSettings = <authSettings-key>,<authSettings-key>,...
* Key to look up the specific configurations of chosen authentication
  system.
* <authSettings-key> is the name of a stanza header that specifies
  settings for scripted authentication, SAML, ProxySSO and for an LDAP
  strategy. Those stanzas are defined below.
* For LDAP, specify the LDAP strategy name(s) here. If you want Splunk
  software to query multiple LDAP servers, provide a comma-separated list
  of all strategies. Each strategy must be defined in its own stanza.
  The order in which you specify the strategy names is the order Splunk
  software uses to query their servers when looking for a user.
* For scripted authentication, <authSettings-key> should be a single
  stanza name.

passwordHashAlgorithm = [SHA512-crypt|SHA256-crypt|SHA512-crypt-<num_rounds>|SHA256-crypt-<num_rounds>|MD5-crypt]
* This controls how hashed passwords are stored in the
```

```
  $SPLUNK_HOME/etc/passwd file for the default "Splunk" authType.
* "MD5-crypt" is an algorithm originally developed for FreeBSD in the early
  1990s, which became a widely used standard among UNIX machines. Splunk
  Enterprise also used it through the 5.0.x releases. MD5-crypt runs the
  salted password through a sequence of 1000 MD5 operations.
* "SHA256-crypt" and "SHA512-crypt" are newer versions that use 5000 rounds
  of the Secure Hash Algorithm-256 (SHA256) or SHA512 hash functions.
  This is slower than MD5-crypt and therefore more resistant to dictionary
  attacks.  SHA512-crypt is used for system passwords on many versions of Linux.
* These SHA-based algorithm can optionally be followed by a number of rounds
  to use. For example, "SHA512-crypt-10000" uses twice as many rounds
  of hashing as the default implementation. The number of rounds must be at
  least 1000.
  If you specify a very large number of rounds (i.e. more than 20x the
  default value of 5000), splunkd might become unresponsive and connections to
  splunkd (from Splunk Web or CLI) time out.
* This setting only affects new password settings (either when a user is
  added or a user's password is changed).  Existing passwords work but retain their
  previous hashing algorithm.
* Default: SHA512-crypt

defaultRoleIfMissing = <splunk role>
* Applicable for LDAP authType. If the LDAP server does not return any groups, or if
  groups cannot be mapped to Splunk roles, then this value is used, if provided.
* This setting is optional.
* Default: empty string

externalTwoFactorAuthVendor = <string>
* A valid multifactor vendor string enables multifactor authentication
  and loads support for the corresponding vendor if supported by the the Splunk platform.
* An empty string disables multifactor authentication in the the Splunk platform.
* Currently Splunk supports Duo and RSA as multifactor authentication vendors.
* This setting is optional.
* No default.

externalTwoFactorAuthSettings = <externalTwoFactorAuthSettings-key>
* Key to look up the specific configuration of chosen multifactor
  authentication vendor.
* This setting is optional.
* No default.
```

LDAP 设置

```
[<authSettings-key>]
* Follow this stanza name with the following setting/value pairs.
* For multiple strategies, specify multiple instances of
  this stanza, each with its own stanza name and a separate set of
  settings.
* The <authSettings-key> must be one of the values listed in the
  authSettings setting, which must be specified in the previous [authentication]
  stanza.

host = <string>
* The hostname of the LDAP server.
* Confirm that your Splunk server can resolve the host name through DNS.
* Required.
* No default.

SSLEnabled = [0|1]
* Specifies whether SSL is enabled.
* See the file $SPLUNK_HOME/etc/openldap/ldap.conf for SSL LDAP settings
* This setting is optional.
* Default: 0 (disabled)
```

```
port = <integer>
* The port that the Splunk platform should use to connect to your LDAP server.
* This setting is optional.
* Default (non-SSL): 389
* Default (SSL): 636

bindDN = <string>
* The LDAP Distinguished Name of the user that retrieves the LDAP entries.
* This user must have read access to all LDAP users and groups you wish to
  use in the auth system.
* This setting is optional.
* Leave this setting blank to retrieve your LDAP entries using
  anonymous bind (which must be supported by the LDAP server)
* No default.

bindDNpassword = <password>
* Password for the bindDN user.
* This setting is optional.
* Leave this blank if anonymous bind is sufficient.
* No default.

userBaseDN = <string>
* The distinguished names of LDAP entries whose subtrees contain the users.
* Enter a ';' delimited list to search multiple trees.
* Required.
* No default.

userBaseFilter = <string>
* The LDAP search filter to use when searching for users.
* Highly recommended, especially when there are many entries in your LDAP
  user subtrees.
* When used properly, search filters can significantly speed up LDAP queries
* Here is an example that matches users in the IT or HR department:
    * userBaseFilter = (|(department=IT)(department=HR))
    * See RFC 2254 for more detailed information on search filter syntax
* This setting is optional.
* Default: empty string (no filtering)

userNameAttribute = <string>
* This is the username.
* NOTE: This setting should use case insensitive matching for its values,
  and the values should not contain whitespace
    * Usernames are case insensitive in the the Splunk platform
* In Active Directory, this is 'sAMAccountName'
* Required.
* A typical value is 'uid'.
* No default.

realNameAttribute = <string>
* The user's real, human readable name.
* Required.
* A typical value is 'cn'.
* No default.

emailAttribute = <string>
* The user's email address.
* This setting is optional.
* Default: mail

groupMappingAttribute = <string>
* The value that group entries use to declare membership.
* Groups are often mapped with user DN, so this defaults to 'dn'
* Set this if groups are mapped using a different setting
  * Usually only needed for OpenLDAP servers.
  * A typical setting is 'uid'
    * For example, assume a group declares that one of its members is
      'splunkuser' - every user with the 'uid' value 'splunkuser' is
      mapped to that group.
* This setting is optional.
* No default.

groupBaseDN = [<string>;<string>;...]
* The LDAP Distinguished Names of LDAP entries whose subtrees contain
  the groups.
* Required.
* Enter a semicolon (;) delimited list to search multiple trees.
* If your LDAP environment does not have group entries, there is a
  configuration that can treat each user as its own group:
  * Set groupBaseDN to the same as userBaseDN, which means you search
    for groups in the same place as users.
  * Next, set the groupMemberAttribute and groupMappingAttribute to the same
    setting as userNameAttribute.
    * This means the entry, when treated as a group, uses the username
      value as its only member.
  * For clarity, also set groupNameAttribute to the same
    value as userNameAttribute.
* No default.

groupBaseFilter = <string>
* The LDAP search filter the Splunk platform uses when searching for static groups
* Like 'userBaseFilter', this is highly recommended to speed up LDAP queries
* See Request for Comments (RFC) 2254 on the Internet Engineering Task Force
  (IETF) website for more information.
* This setting is optional.
* Default: empty string (no filtering).

dynamicGroupFilter = <string>
* The LDAP search filter the Splunk platform uses when searching for dynamic groups.
* Configure this setting only if you intend to retrieve dynamic groups
  on your LDAP server.
* Example: '(objectclass=groupOfURLs)'
* This setting is optional.
* Default: empty string

dynamicMemberAttribute = <string>
* This setting contains the LDAP URL needed to retrieve members dynamically.
* Only configure this if you intend to retrieve dynamic groups on your
  LDAP server.
* This setting is required if you want to retrieve dynamic groups.
* Otherwise, it is optional.
* Example: 'memberURL'
* No default.

groupNameAttribute = <string>
* This is the group entry setting whose value stores the group name.
* A typical setting for this is 'cn' (common name)
* Recall that if you are configuring LDAP to treat user entries as their own
  group, user entries must have this setting
* Required.
* Default: empty string

groupMemberAttribute = <string>
* This is the group entry setting whose values are the groups members
* Typical setting for this are 'member' and 'memberUid'
* For example, consider the groupMappingAttribute example above using
  groupMemberAttribute 'member'
  * To declare 'splunkuser' as a group member, its setting 'member' must
    have the value 'splunkuser'
* Required.
* Default: empty string

nestedGroups = <boolean>
* Controls whether the Splunk platform expands nested groups using the
  'memberof' extension.
* Set to 1 if you have nested groups you want to expand and the 'memberof'
  extension on your LDAP server.
* This setting is optional.
```

```
charset = <string>
* Only set this for an LDAP setup that returns non-UTF-8 encoded data. LDAP
  is supposed to always return UTF-8 encoded data (See RFC 2251), but some
  tools incorrectly return other encodings.
* Follows the same format as 'CHARSET' in props.conf (see props.conf.spec)
* An example value would be "latin-1"
* This setting is optional.
* Default: empty string

anonymous_referrals = [0|1]
* Set this to 0 to turn off referral chasing
* Set this to 1 to turn on anonymous referral chasing
* NOTE: the Splunk platform only chases referrals using anonymous bind.
        It does not support rebinding using credentials.
* If you do not need referral support, set this to 0.
* If you wish to make referrals work, set this to 1 and confirm your server
  allows anonymous searching
* This setting is optional.
* Default: 1

sizelimit = <integer>
* Limits the amount of entries that the Splunk platform requests in LDAP search.
* NOTE: The max entries returned is still subject to the maximum
        imposed by your LDAP server.
  * Example: If you set this to 5000 and the server limits it to 1000,
             the software only returns 1000 entries.
* This setting is optional.
* Default: 1000

pagelimit = <integer>
* The maximum number of entries to return in each page.
* Enables result sets that exceed the maximum number of entries defined for the
  LDAP server.
* If set to -1, ldap pagination is off.
* IMPORTANT: The maximum number of entries a page returns is subject to
  the maximum page size limit of the LDAP server. For example: If you set 'pagelimit =
  5000' and the server limit is 1000, you cannot receive more than 1000 entries in
  a page.
* This setting is optional.
* Default: -1

enableRangeRetrieval = <boolean>
* The maximum number of values that can be retrieved from one attribute in a
  single LDAP search request is determined by the LDAP server. If the number of
  users in a group exceeds the LDAP server limit, enabling this setting fetches all
  users by using the "range retrieval" mechanism.
* Enables result sets for a given attribute that exceed the maximum number of
  values defined for the LDAP server.
* If set to false, ldap range retrieval is off.
* This setting is optional.
* Default: false

timelimit = <integer>
* Limits the amount of time, in seconds, that the Splunk platform waits for an LDAP search
  request to complete.
* If your searches finish quickly, lower this value from the default.
* Maximum value is 30 seconds
* Default: 15

network_timeout = <integer>
* Limits the amount of time a socket polls a connection without activity
* This is useful for determining if your LDAP server cannot be reached
* NOTE: As a connection could be waiting for search results, this value
        must be higher than 'timelimit'.
* Like 'timelimit', if you have a fast connection to your LDAP server,
  lower this value.
* This setting is optional.
* Default: 20
```

```
ldap_negative_cache_timeout = <nonnegative decimal>
* The amount of time, in seconds, that the Splunk platform remembers that a non-existent
  user on an LDAP provider does not exist.
* This setting is useful when you want to avoid frequent LDAP queries for users
  that do not exist on the LDAP provider.
* This setting does not prevent LDAP queries on login. Login always queries the LDAP
  provider to confirm that a user exists.
* Default: 86400
```

映射角色

```
[roleMap_<authSettings-key>]
* The mapping of Splunk roles to LDAP groups for the LDAP strategy specified
  by <authSettings-key>
* Follow this stanza name with several Role-to-Group(s) mappings as defined
  below.
* NOTE: This role mapping ONLY applies to the specified strategy.
* Importing groups for the same user from different strategies is not
  supported.

<Splunk RoleName> = <LDAP group string>
* Maps a Splunk role (from authorize.conf) to LDAP groups
* This LDAP group list is semicolon delimited (no spaces).
* List several of these setting/value pairs to map several Splunk roles to
  LDAP Groups
```

脚本式验证

```
[<authSettings-key>]
* Follow this stanza name with the following setting/value pairs:

python.version = {default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.

scriptSearchFilters = [1|0]
* Whether or not to call the script to add search filters.
* Set this to 1 to call the script to add search filters.
* Default: 0

[cacheTiming]
* Use these settings to adjust how long the Splunk platform uses the answers returned
  from script functions before calling them again.
* All timeouts can be expressed in seconds or as a search-like time range
* Examples include "30" (30 seconds), "2mins" (2 minutes), "24h" (24 hours), etc.
* You can opt to use no caching for a particular function by setting the
  value to "0".
  * Be aware that this can severely hinder performance as a result of heavy
    script invocation.
* Choosing the correct values for cache timing involves a tradeoff between
  new information latency and general performance.
  * High values yield better performance from calling the script less, but
    introduces a latency in picking up changes.
  * Low values pick up changes in your external auth system more
    quickly, but can slow down performance due to increased script
    invocations.

userLoginTTL = <time range string>
* The timeout for the 'userLogin' script function.
* These return values are cached on a per-user basis.
* Default: 0 (no caching)

userInfoTTL = <time range string>
* How long the auth system caches information that it retrieves with the
  'getUserInfo' and 'getUsers' scripts.
* These return values are cached on a per-user basis.
* Default (if you have configured either 'getUserInfoTTL' or 'getUsersTTL'): the larger value of these settings
* Default (otherwise): 10s

getUserInfoTTL = <time range string>
* DEPRECATED; use 'userInfoTTL' instead.
* How long the auth system caches information that it retrieves with the
  'getUserInfo' script.
* These return values are cached on a per-user basis.
* Default: 10s

getUsersTTL = <time range string>
* DEPRECATED; use 'userInfoTTL' instead.
* The timeout for the getUsers script function.
* There is only one global getUsers cache (it is not tied to a
  specific user).
* Default: 10s
```

Splunk 验证模式设置

```
[splunk_auth]
* Settings for Splunk's internal authentication system.


minPasswordLength = <positive integer>
* Specifies the minimum permitted password length in characters when
  passwords are set or modified.
* Password modification attempts which do not meet this requirement are
* explicitly rejected.
* Values less than 1 are ignored.
* This setting is optional.
* Default: 8

minPasswordUppercase = <positive integer>
* Specifies the minimum permitted uppercase characters when passwords are set
  or modified.
* The Splunk platform ignores negative values.
* This setting is optional.
* Password modification attempts which do not meet this requirement are
  explicitly rejected.
* Default: 0

minPasswordLowercase = <positive integer>
* Specifies the minimum permitted lowercase characters when passwords are set
  or modified.
* The the Splunk platform ignores negative values.
* This setting is optional.
* Password modification attempts which do not meet this requirement are
  explicitly rejected.
* Default: 0

minPasswordDigit = <positive integer>
* Specifies the minimum permitted digit or number characters when passwords are
  set or modified.
* The Splunk platform ignores negative values.
* This setting is optional.
* Password modification attempts which do not meet this requirement are
  explicitly rejected.
* Default: 0
```

```
minPasswordSpecial = <positive integer>
* Specifies the minimum permitted special characters when passwords are set
  or modified.
* The semicolon character is not allowed.
* The Splunk platform ignores negative values.
* This setting is optional.
* Password modification attempts which do not meet this requirement are
  explicitly rejected.
* Default: 0

expirePasswordDays = <positive integer>
* Specifies the number of days before the password expires after a reset.
* Minimum value: 0
* Maximum value: 3650
* the Splunk platform ignores negative values.
* This setting is optional.
* Default: 90

expireAlertDays = <positive integer>
* Specifies the number of days to issue alerts before password expires.
* Minimum value: 0
* Maximum value: 120
* The Splunk platform ignores negative values.
* This setting is optional.
* Alerts appear in splunkd.log.
* Default: 15

expireUserAccounts = <boolean>
* Specifies whether password expiration is enabled.
* This setting is optional.
* Default: false (user passwords do not expire)

forceWeakPasswordChange = <boolean>
* Specifies whether users must change a weak password.
* This setting is optional.
* Default: false (users can keep weak password)

lockoutUsers = <boolean>
* Specifies whether locking out users is enabled.
* This setting is optional.
* If you enable this setting on members of a search head cluster, user lockout
  state applies only per SHC member, not to the entire cluster.
* Default: true (users are locked out on incorrect logins)

lockoutMins = <positive integer>
* The number of minutes that a user is locked out after entering an incorrect
  password more than 'lockoutAttempts' times in 'lockoutThresholdMins' minutes.
* Any value less than 1 is ignored.
* Minimum value: 1
* Maximum value: 1440
* This setting is optional.
* If you enable this setting on members of a search head cluster, user lockout
  state applies only per SHC member, not to the entire cluster.
* Default: 30

lockoutAttempts = <positive integer>
* The number of unsuccessful login attempts that can occur before a user is locked out.
* The unsuccessful login attempts must occur within 'lockoutThresholdMins' minutes.
* Any value less than 1 is ignored.
* Minimum value: 1
* Maximum value: 64
* This setting is optional.
* If you enable this setting on members of a search head cluster, user lockout
  state applies only per SHC member, not to the entire cluster.
* Default: 5

lockoutThresholdMins = <positive integer>
* Specifies the number of minutes that must pass from the time of the first failed
```

```
  login before the failed login attempt counter resets.
* Any value less than 1 is ignored.
* Minimum value: 1
* Maximum value: 120
* This setting is optional.
* If you enable this setting on members of a search head cluster, user lockout
  state applies only per SHC member, not to the entire cluster.
* Default: 5

enablePasswordHistory = <boolean>
* Specifies whether password history is enabled.
* When set to "true", the Splunk platform maintains a history of passwords
  that have been used previously.
* This setting is optional.
* Default: false

passwordHistoryCount = <positive integer>
* The number of passwords that are stored in history. If password
  history is enabled, on password change, user is not allowed to pick an
  old password.
* This setting is optional.
* Minimum value: 1
* Maximum value: 128
* Default: 24

constantLoginTime = <decimal>
* The amount of time, in seconds, that the authentication manager
  waits before returning any kind of response to a login request.
* This setting helps mitigate login timing attacks. If you want to use the
  setting, test it in your environment first to determine the appropriate
  value.
* When you configure this setting, login is guaranteed to take at least the
  amount of time you specify. The authentication manager
  adds a delay to the actual response time to keep this guarantee.
* The values can use decimals. "0.025" would make responses take a
  consistent 25 milliseconds or slightly more.
* This setting is optional.
* Minimum value: 0 (Disables login time guarantee)
* Maximum value: 5.0
* Default: 0

verboseLoginFailMsg = <boolean>
* Specifies whether or not the login failure message explains
  the failure reason.
* When set to true, the Splunk platform displays a message on login
  along with the failure reason.
* When set to false, the Splunk platform displays a generic failure
  message without a specific failure reason.
* This setting is optional.
* Default: true
```

安全断言标记语言（SAML）设置

```
[<saml-authSettings-key>]
* Follow this stanza name with the following setting/value pairs.
* The <authSettings-key> must be one of the values listed in the
* authSettings setting, specified above in the [authentication] stanza.

fqdn = <string>
* The fully qualified domain name where this splunk instance is running.
* If this value is not specified, the Splunk platform uses the value specified
  in server.conf.
* If this value is specified and 'http://' or 'https://' prefix is not
  present, the Splunk platform uses the SSL setting for Splunk Web.
* This setting is optional.
* the Splunk platform uses this information to populate the 'assertionConsumerServiceUrl'.
* Default: empty string

redirectPort = <port number>
* The port where SAML responses are sent.
* Typically, this is the web port.
* If internal port redirection is needed, set this port and the
  'assertionconsumerServiceUrl' in the AuthNRequest contains this port
  instead of the Splunk Web port.
* To prevent any port information to be appended in the
  'assertionConsumerServiceUrl' setting, set this to 0.
* No default.

idpSSOUrl = <url>
* The protocol endpoint on the IDP (Identity Provider) where the
  AuthNRequests should be sent.
* Required.
* SAML requests fail if this information is missing.
* No default.

idpAttributeQueryUrl = <url>
* The protocol endpoint on the IDP (Identity Provider) where the setting
  query requests should be sent.
* Attribute queries can be used to get the latest 'role' information,
  if there is support for Attribute queries on the IDP.
* This setting is optional.
* When this setting is absent, the Splunk platform caches the role information
  from the SAML assertion and use it to run saved searches.
* No default.

idpCertPath = <string>
* This value is relative to $SPLUNK_HOME/etc/auth/idpCerts.
* The value for this setting can be the name of the certificate file or a directory.
* If it is empty, the Splunk platform automatically verify with certificates in all
  subdirectories present in $SPLUNK_HOME/etc/auth/idpCerts.
* If the SAML response is to be verified with a IdP (Identity Provider) certificate that
  is self signed, then this setting holds the filename of the certificate.
* If the SAML response is to be verified with a certificate that is a part of a
  certificate chain(root, intermediate(s), leaf), create a subdirectory and place the
  certificate chain as files in the subdirectory.
* If there are multiple end certificates, create a subdirectory such that, one
  subdirectory holds one certificate chain.
* If multiple such certificate chains are present, the assertion is considered verified,
  if validation succeeds with any certificate chain.
* The file names within a certificate chain should be such that root certificate
  is alphabetically before the intermediate which is alphabetically before of
  the end cert.
  ex. cert_1.pem has the root, cert_2.pem has the first intermediate cert,
      cert_3.pem has the second intermediate certificate and cert_4.pem has the
      end certificate.
* This setting is required if 'signedAssertion' is set to true.
* Otherwise, it is optional.
* No default.

idpSLOUrl = <string>
* The protocol endpoint on the IDP (Identity Provider) where a SP
  (Service Provider) initiated Single logout request should be sent.
* This setting is optional.
* No default.

errorUrl = <string>
* The URL to be displayed for a SAML error.
* Errors may be due to erroneous or incomplete configuration in either
  the IDP or the Splunk platform.
* This URL can be absolute or relative.
  * Absolute URLs should follow the pattern
    <protocol>:[//]<host> e.g. https://www.external-site.com.
  * Relative URLs should start with '/'. A relative url shows up as an
    internal link of the Splunk instance, for
    example: https://splunkhost:port/relativeUrlWithSlash
* No default.

errorUrlLabel = <string>
* Label or title of the content pointed to by errorUrl.
* This setting is optional.
* No default.

entityId = <string>
* The entity ID for SP connection as configured on the IDP.
* Required.
* No default.

issuerId = <string>
* Required.
* The unique identifier of the identity provider.
  The value of this setting corresponds to the setting "entityID" of
  "EntityDescriptor" node in IdP metadata document.
* If you configure SAML using IdP metadata, this field is extracted from
  the metadata.
* If you configure SAML manually, then you must configure this setting.
* When the Splunk platform tries to verify the SAML response, the issuerId
  specified here must match the 'Issuer' field in the SAML response. Otherwise,
  validation of the SAML response fails.

signAuthnRequest = <boolean>
* Whether or not the Splunk platform should sign AuthNRequests.
* This setting is optional.
* Default: true

signedAssertion = <boolean>
* Whether or not the SAML assertion has been signed by the IDP.
* If set to false, the Splunk platform does not verify the signature
  of the assertion using the certificate of the IDP.
* The software accepts both signed and encrypted assertions.
* Changing this to false will not affect encrypted assertions.
* This setting is optional.
* Default: true

attributeQuerySoapPassword = <password>
* The password to be used when making an attribute query request.
* Attribute query requests are made using SOAP using basic authentication
* This setting is required if 'attributeQueryUrl' is specified.
* Otherwise, it is optional.
* This string is obfuscated upon splunkd startup.
* No default.

attributeQuerySoapUsername = <string>
* The username to be used when making an attribute query request.
* Attribute Query requests are made using SOAP using basic authentication
* This setting is required if 'attributeQueryUrl' is specified.
* Otherwise, it is optional.
* No default.

attributeQueryRequestSigned = <boolean>
* Whether or not to sign attribute query requests.
* Default: true

attributeQueryResponseSigned = <boolean>
* Specifies whether attribute query responses are signed.
* If set to false, the Splunk platform does not verify the signature in
  the response using the certificate of the IDP.
* This setting is optional.
* Default: true

partialChainCertVerification = <boolean>
* Whether or not authentication uses the OpenSSL X509_V_FLAG_PARTIAL_CHAIN
* flag when performing validation on a SAML certificate chain.
* Configuring this setting to "true" lets verification of SAML certificates
* succeed even in cases where a complete certificate chain cannot be built
* back to a self-signed trust anchor certificate.
* When set to "true", intermediate certificates in the trust store are
* treated as trust-anchors in the same way as self-signed root certificate
* authority certificates.
* Uses X509_V_FLAG_PARTIAL_CHAIN flag during certificate verification.
* This setting is optional.
* Default: false

redirectAfterLogoutToUrl = <string>
* The user is redirected to this url after logging out of the Splunk platform.
* If this is not specified, and 'idpSLO' is also not set, the user is
  redirected to splunk.com after logout.
* This setting is optional.
* No default.

defaultRoleIfMissing = <string>
* If the IdP does not return any AD groups or Splunk roles as a part of the
  assertion, the Splunk platform uses this value if provided.
* This setting is optional.
* No default.

skipAttributeQueryRequestForUsers = <comma separated list of users>
* To skip attribute query requests being sent to the IDP for certain users,
  add them with this setting.
* By default, attribute query requests are skipped for local users.
* For non-local users, use this in conjunction with 'defaultRoleIfMissing'.
* This setting is optional.
* No default.

maxAttributeQueryThreads = <integer>
* Number of threads to use to make attribute query requests.
* Changes to this setting require a restart to take effect.
* This setting is optional.
* Maximum value: 10
* Default: 2

maxAttributeQueryQueueSize = <integer>
* The number of attribute query requests to queue, set to 0 for infinite
  size.
* Changes to this setting require a restart to take effect.
* This setting is optional.
* Default: 50

attributeQueryTTL = <integer>
* Determines the time for which the Splunk platform caches the user and role
  information (time to live).
* After the ttl expires, the Splunk platform makes an attribute query request to
  retrieve the role information.
* This setting is optional.
* Default: 3600

scriptPath = <string>
* The name of the authentication extension script to run.
* The auth system expects the script to be in Python version 3, and looks for
  it in the $SPLUNK_HOME/etc/auth/scripts directory.
* No default.

python.version = {default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.

scriptTimeout = <string>
* The maximum time the script can run before the auth system forcefully terminates it.
* If you set to zero, the auth system never kills the script.
* If you set to below 500ms, the auth system uses a minimum of 500 ms.
* Optional
* Default: 10s

scriptFunctions = <semicolon-separated list>
* Script functions to be enabled for authentication extensions.
* Expressed as a list.
* Supported values are 'getUsers', 'getUserInfo', and 'login'.
* To use the 'getUsers' function, you must also enable the 'getUserInfo' function.
* You must set this if you define 'scriptPath'.
* No default.

getUsersPrecacheLimit = <integer>
* The number of users to pre-cache on startup for the 'getUsers' script function.
* If you enable the 'getUsers' function, the script executes when splunkd starts up.
* As part of startup, splunkd caches user information that the 'getUsers' script returns,
  and this setting specifies how many users to cache.
* If you set 'getUsersPrecacheLimit' to 0, splunkd caches all user information that
  the 'getUsers' function returns.
* Default: 1000

getUserInfoTTL = <string>
* When you configure the auth system to use SAML as an authentication method,
  it runs the 'getUserInfo' script function to retrieve information from the
  SAML identity provider when users perform ad-hoc operations such as working
  with tokens and saved searches.
* This setting controls how long the auth system caches information that it
  retrieves with the 'getUserInfo' script function.
* This setting does not control how the method retrieves user information
  when one logs in using the standard SAML login flow through a browser.
* These return values are cached on a per-user basis.
* This value also applies if users are retrieved en masse using the scripts
  getUsers() function.
* If you configure both AQR and authentication extensions (meaning, you configure
  both 'attributeQueryTTL' and 'getUserInfoTTL', this setting takes precedence.
* This setting is optional.
* Default: 10s

scriptSecureArguments = <key:value>;[<key:value>;]...
* A list of inputs, expressed as key-value pairs, that will be made available
  in plaintext to the custom user information retrieval script.
* On startup, the auth system encrypts the values you specify here.
* Use this setting to safely store passwords, tokens, or other credentials
  that the script needs to function.
* If you use the 'commonAuth.py' sample script to read in the inputs, these values
  are available as normal arguments for all functions.
* This setting is optional.
* No default.

assertionTimeSkew = <integer>
* The amount of clock skew, in seconds, that can occur between the Splunk platform and
  an identity provider that presents SAML assertions that contain 'NotBefore'
  and 'NotOnOrAfter' attributes.
* If you set this, the Splunk platform accepts a SAML assertion as valid if
  the clock skew between the assertion validity interval and the system time on the
  Splunk instance is not greater than the value of this setting.
* NOTE: Setting this to too high a value can allow for replay attacks and is a security risk.
* This setting is optional.
* Default: 120

allowSslCompression = <boolean>
* If set to true, the server allows clients to negotiate SSL-layer
  data compression.
* This setting is optional.
* Default: The value of 'allowSslCompression' in the server.conf file

cipherSuite = <cipher suite string>
* If set, the Splunk platform uses the specified cipher string for the HTTP server.
* Attribute query requests might fail if the IDP requires a relaxed
  ciphersuite.
```

```
* Use "openssl s_client -cipher 'TLSv1+HIGH:@STRENGTH' -host <IDP host> -port 443"
  to determine if the Splunk platform can connect to the IDP.
* This setting is optional.
* Default: The value or 'cipherSuite' in the server.conf file

sslVersions = <versions_list>
* Comma-separated list of SSL versions to support.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2"
* Default: The value of 'sslVersions' in the server.conf file

sslCommonNameToCheck = <commonName>
* If set, and 'sslVerifyServerCert' is set to true,
  splunkd limits most outbound HTTPS connections to hosts which use
  a cert with this common name.
* This setting is optional.
* Default: The value of 'cipherSuite' in the server.conf file

sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd is also willing to verify certificates which have a so-called
  "Subject Alternate Name" that matches any of the alternate names in this list.
* This setting is optional.
* Default: The value of 'sslAltNametoCheck' in the server.conf file

ecdhCurveName = <string>
* DEPRECATED; use 'ecdhCurves' instead.
* Elliptic Curve-Diffie Hellman (ECDH) curve to use for ECDH key negotiation.
* Default: The value of 'ecdhCurveName' in the server.conf file

ecdhCurves = <comma separated list>
* ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of Client Hello.
* The server supports only the curves specified in the list.
* The Splunk platform only supports named curves that have been
  specified by their SHORT names.
* The list of valid named curves by their short/long names can be obtained
  by executing this CLI command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Example setting: ecdhCurves = prime256v1,secp384r1,secp521r1
* Default: The value of 'ecdhCurves' in the server.conf file

clientCert = <path>
* Full path to the client certificate Privacy-Enhanced Mail (PEM) format file.
* Certificates are auto-generated upon first starting the Splunk platform.
* You may replace the auto-generated certificate with your own.
* If not set, Splunk uses the setting specified in
  server.conf/[sslConfig]/'serverCert'.
* Default: $SPLUNK_HOME/etc/auth/server.pem

sslKeysfile = <filename>
* DEPRECATED; use 'clientCert' instead.
* Location of the PEM file in the directory specified by 'caPath'.
* Default: server.pem

sslPassword = <password>
* The server certificate password.
* If not set, the Splunk platform uses the setting specified in server.conf.
* This setting is optional.
* Default: password

sslKeysfilePassword = <password>
* DEPRECATED; use 'sslPassword' instead.

caCertFile = <filename>
* The public key of the signing authority.
* If not set, the Splunk platform uses the setting specified in server.conf.
* This setting is optional.
* Default: cacert.pem
```

```
caPath = <path>
* DEPRECATED; use absolute paths for all certificate files.
* If certificate files given by other settings in this stanza are not absolute
  paths, then they are relative to this path.
* Default: $SPLUNK_HOME/etc/auth

sslVerifyServerCert = <boolean>
* Used by distributed search: when making a search request to another
  server in the search cluster.
* If not set, the Splunk platform uses the setting specified in server.conf.
* This setting is optional.
* No default.

blacklistedAutoMappedRoles = <comma separated list>
* DEPRECATED; use 'excludedAutoMappedRoles' instead.

excludedAutoMappedRoles = <comma separated list>
* Comma separated list of splunk roles that should be prevented
  from being auto-mapped by splunk from the IDP Response.
* This setting is optional.
* No default.

blacklistedUsers = <comma separated list>
* DEPRECATED; use 'excludedUsers' instead.

excludedUsers = <comma separated list>
* Comma separated list of user names from the IDP response to be
  excluded by splunk platform.
* This setting is optional.
* No default.

nameIdFormat = <string>
* If supported by IDP, while making SAML Authentication request this value can
  be used to specify the format of the Subject returned in SAML Assertion.
* This setting is optional.
* No default.

ssoBinding = <string>
* The binding that is used when making a SP-initiated SAML request.
* Acceptable options are "HTTPPost" and "HTTPRedirect".
* This binding must match the one configured on the IDP.
* This setting is optional.
* Default: HTTPPost

sloBinding = <string>
* The binding that is used when making a logout request or sending a logout
  response to complete the logout workflow.
* Acceptable options are "HTTPPost" and "HTTPRedirect".
* This binding must match the one configured on the IDP.
* This setting is optional.
* Default: HTTPPost

signatureAlgorithm = RSA-SHA1 | RSA-SHA256 | RSA-SHA384 | RSA-SHA512
* The signature algorithm that is used for outbound SAML messages,
  for example, SP-initiated SAML request.
* This setting is only used when 'signAuthnRequest' is set to "true".
* This setting is applicable for both HTTP POST and HTTP Redirect binding.
* RSA-SHA1 corresponds to 'http://www.w3.org/2000/09/xmldsig#rsa-sha1'.
* RSA-SHA256, RSA-SHA384, and RSA-SHA512 correspond to 'http://www.w3.org/2001/04/xmldsig-more'.
* This algorithm is sent as a part of 'sigAlg'.
* For improved security, set to "RSA-SHA256", "RSA-SHA384", or "RSA-SHA512".
* This setting is optional.
* Default: RSA-SHA1

inboundSignatureAlgorithm = RSA-SHA1;RSA-SHA256;RSA-SHA384;RSA-SHA512
* A semicolon-separated list of signature algorithms for the SAML responses
  that you want Splunk Web to accept.
* The Splunk platform rejects any SAML responses that are not signed by
```

```
  any one of the specified algorithms.
* This setting is applicable for both HTTP POST and HTTP Redirect binding.
* For improved security, set to "RSA-SHA256", "RSA-SHA384", or "RSA-SHA512".
* This setting is optional.
* Default: RSA-SHA1;RSA-SHA256;RSA-SHA384;RSA-SHA512

inboundDigestMethod = SHA1;SHA256;SHA384;SHA512
* A semicolon-separated list of digest methods for the SAML responses
  that you want Splunk Web to accept.
* The Splunk platform rejects any SAML responses that are not hashed by
  any one of the specified methods.
* This setting is applicable for HTTP POST binding only.
* For improved security, set to "SHA256", "SHA384", or "SHA512".
* This setting is optional.
* Default: SHA1;SHA256;SHA384;SHA512

replicateCertificates = <boolean>
* If set to "true", IdP certificate files are replicated across search head cluster setup.
* If disabled, IdP certificate files need to be replicated manually across SHC,
  otherwise verification of SAML-signed assertions fails.
* This setting has no effect if search head clustering is disabled.
* This setting is optional.
* Default: true

lockRoleToFullDN = <boolean>
* Determines how the auth system handles authentication when it receives a
  Security Assertion Markup Language (SAML) assertion from an identity
  provider (IdP) in specific cases.
* This setting applies only under the following conditions:
  * You have configured a Common Name (CN) mapping to a Splunk role
    under a [roleMap_SAML] stanza in authentication.conf. The auth system
    ignores this setting if you have configured a full Distinguished Name (DN)
    role mapping.
  * The IdP returns a full DN as part of the SAML assertion. The auth system
    ignores this setting if the IdP does not return a full DN in the assertion.
* If set to "false", the auth system uses the first part of the DN that the IdP
  provides in the assertion, and ignores the rest of the DN.
* If set to "true", the auth system does the following:
  * If you have configured a role mapping under the [roleMap_SAML] stanza that
    contains the full DN, the auth system uses the DN and logs the user in.
  * If you have configured a role mapping under the [roleMap_SAML] stanza that
    contains the CN, but not the full DN, the auth system successfully logs in
    the first user whose CN matches the role mapping, and records the full
    DN into a [lockedRoleToFullDNMap_SAML] stanza in authentication.conf.
  * The auth system then rejects subsequent authentication attempts by users
    that have a matching CN but do not have a full DN. It logs such rejections
    in splunkd.log.
  * To stop authentication failures in this case, as a Splunk admin, you must
    add the DN to the [roleMap_SAML] stanza in authentication.conf. Editing the
    [lockedRoleToFullDNMap_SAML] stanza to have different DNs with identical CNs
    map to different roles is not supported.
* Example: if this setting is "true" and you map a role in authentication.conf
  as follows:

  [roleMap_SAML]
  power=CN=PowerUsers

  and later, a SAML assertion arrives with the following DN:
  CN=PowerUsers,OU=Americas,DC=splunkcorp,DC=com

  then the auth system logs in the user who presented this assertion,
  writes an entry to authentication.conf like the following:

  [lockedRoleToFullDNMap_SAML]
  power=CN=PowerUsers,OU=Americas,DC=splunkcorp,DC=com

  and rejects further login attempts from users that present an assertion with
  the same CN ("CN=PowerUsers"), that is part of a different DN (for example,
  "CN=PowerUsers,OU=EMEA,DC=splunkcorp,DC=com",
  rather than "CN=PowerUsers,OU=Americas,DC=splunkcorp,DC=com").
* Default: true

allowPartialSignatures = <boolean>
* OPTIONAL
* When enabled, the Splunk authentication system only requires the SAML assertion block to be
  signed (but not necessarily the entire SAML response).
* When disabled, the entire SAML response must be signed for the login to succeed.
* Defaults to 'true'
```

映射角色

```
[roleMap_<saml-authSettings-key>]
* The mapping of Splunk roles to SAML groups for the SAML stanza specified
  by '<authSettings-key>'.
* If a SAML group is not explicitly mapped to a Splunk role, but has
  the same name as a valid Splunk role then for ease of configuration,
  it is auto-mapped to that Splunk role.
* Follow this stanza name with several Role-to-Group(s) mappings as defined
  below.

<Splunk RoleName> = <SAML group string>
* Maps a Splunk role (from authorize.conf) to SAML groups
* This SAML group list is semicolon delimited (no spaces).
* List several of these setting/value pairs to map several Splunk roles to
  SAML Groups.
* If the role mapping is not specified, Splunk expects Splunk roles in the
  assertion and attribute query response returned from the IDP.
```

SAML 用户角色映射

```
[userToRoleMap_<saml-authSettings-key>]
* The mapping of SAML user to Splunk roles, real names, and emails,
  for the SAML stanza specified by '<authSettings-key>'.
* Follow this stanza name with several User-to-Role::Realname::Email mappings
  as defined below.
* The stanza is used only when the IDP does not support Attribute Query Request

<SAML User> = <Splunk Roles string>::<Realname>::<Email>
* Maps a SAML user to a Splunk role(from authorize.conf), real name, and email
* The Splunk Roles string is semicolon delimited (no spaces).
* The Splunk Roles string, Realname and Email are :: delimited (no spaces).
```

将角色映射锁定至 SAML 组 DN

```
[lockedRoleToFullDNMap_<saml-authSettings-key>]
* This stanza is an output stanza that the Splunk auth system creates
  only under certain conditions.
* The stanza applies only if you have set 'lockRoleToFullDN' to "true".
  Nothing happens if 'lockRoleToFullDN' is "false".
* See the 'lockRoleToFullDN' setting for information on the acronyms that
  are used in this setting description.
* When the auth system receives a SAML assertion from an IdP that includes
  a group DN, it performs several checks:
  * First, it checks to see if the CN portion of the group DN that the IdP
    provided in the assertion is a match to any CN that you have configured
    in authentication.conf under the '[roleMap_SAML]' stanza.
  * If a CN matches, and you have not previously performed a mapping
    of SAML group DN to Splunk role, the auth system creates an entry underneath
    this stanza, in the following format:

    <Splunk role name> = <SAML group DN string>
  * This means that the auth system has locked the Splunk role name that
    you configured in the '[roleMap_SAML]' stanza to the DN that the IdP
    provided in the assertion.
  * After creating the entry, the auth system maps a user with the group
    DN that the IdP provided to the corresponding Splunk role and lets this
    user - and only this user - log in.
  * It then rejects users that present the same CN, but that do not provide a
    DN that exactly matches what was written under this stanza, for this
    Splunk role, on future login attempts.
  * It also writes a warning message to splunkd.log stating that the DN that
    the IdP presented has already been locked to a Splunk role.
  * Entries in this stanza map a Splunk role to a semicolon separated list of
    group DNs. DNs referenced in this stanza are enforced to have unique CNs
    (a CN cannot map to multiple DNs).
```

验证响应属性映射

```
[authenticationResponseAttrMap_SAML]
* The Splunk platform expects emails, real names, and roles to be returned as SAML
  attributes in SAML assertion. This stanza can be used to map attribute names
  to what is expected. These are optional settings, and are only needed for
  certain IDPs.

role = <string>
* Attribute name to be used as role in SAML Assertion.
* This setting is optional.
* Default: role

realName = <string>
* Attribute name to be used as realName in SAML Assertion.
* This setting is optional.
* Default: realName

mail = <string>
* Attribute name to be used as email in SAML Assertion.
* This setting is optional.
* Default: mail
```

代理 SSO 模式设置

```
[roleMap_proxySSO]
* The mapping of Splunk roles to groups passed in headers from the proxy server.
* If a group is not explicitly mapped to a Splunk role, but has
  the same name as a valid Splunk role, then, for ease of configuration, it is
  auto-mapped to that Splunk role.
* Follow this stanza name with several Role-to-Group(s) mappings as defined
  later in this section.

<Splunk RoleName> = <Group string>
* Maps a Splunk role (from authorize.conf) to one or more groups.
* This group list is semicolon delimited (no spaces).
* List several of these setting value pairs to map several Splunk roles to
  groups.
* If role mapping is not specified, the user is logged in with the
  default User role.
* No default.

[userToRoleMap_proxySSO]
* The mapping of ProxySSO user to Splunk roles
* Follow this stanza name with several User-to-Role(s) mappings as defined
  later in this section.

<ProxySSO User> = <Splunk Roles string>
* Maps a ProxySSO user to Splunk role (from authorize.conf).
* This Splunk Role list is semicolon delimited (no spaces).
* No default.

[proxysso-authsettings-key]
* Follow this stanza name with the setting/value pairs listed below.

defaultRoleIfMissing = <splunk role>
* If Splunk roles cannot be determined based on role mapping, the Splunk platform
  uses the default configured splunk role.
* This setting is optional.

blacklistedAutoMappedRoles = <comma separated list>
* DEPRECATED; use 'excludedAutoMappedRoles' instead.

excludedAutoMappedRoles = <comma separated list>
* Comma-separated list of Splunk roles that should be prevented
  from being auto-mapped by the Splunk platform from the proxy server headers.
* This setting is optional.

blacklistedUsers = <comma separated list>
* DEPRECATED; use 'excludedUsers' instead.

excludedUsers = <comma separated list>
* Comma-separated list of user names from the proxy server headers to be
  excluded by the Splunk platform.
* This setting is optional.
```

密钥存储

```
[secrets]

disabled = <boolean>
* Toggles integration with platform-provided secret storage facilities.
* NOTE: Splunk plans to submit Splunk Enterprise for Common Criteria
  evaluation. Splunk does not support using the product in Common
  Criteria mode until it has been certified by NIAP. See the "Securing
  Splunk Enterprise" manual for information on the status of Common
  Criteria certification.
* Default (if Common Criteria mode is enabled): false
* Default (if Common Criteria mode is disabled): true


filename = <filename>
* Designates a Python script that integrates with platform-provided
  secret storage facilities, like the GNOME keyring software for the
  GNOME desktop manager.
* Set <filename> to the name of a Python script located in one of the
  following directories:
    $SPLUNK_HOME/etc/apps/*/bin
    $SPLUNK_HOME/etc/system/bin
    $SPLUNK_HOME/etc/searchscripts
* Set <filename> to a basename. Do not user a name with path separators.
* Ensure <filename> ends with a .py file extension.
* No default.

namespace = <string>
* Use an instance-specific string as a namespace within secret storage.
* When using GNOME keyring, this namespace is used as a keyring name.
* If multiple Splunk instances must store separate sets of secrets within the
  same storage backend, customize this value to be unique for each
  Splunk instance.
* Default: splunk
```

Duo 多因子验证（MFA）供应商设置

```
[<duo-externalTwoFactorAuthSettings-key>]
* <duo-externalTwoFactorAuthSettings-key> must be the value listed in the
  'externalTwoFactorAuthSettings' setting, specified in the [authentication]
  stanza.
* This stanza contains Duo specific multifactor authentication settings and is
  activated only when you set 'externalTwoFactorAuthVendor' to "Duo".
* All the following settings, except 'appSecretKey', are provided by Duo.

apiHostname = <string>
* Duo's API endpoint which performs the actual multifactor authentication.
* Example: apiHostname = api-xyz.duosecurity.com
* Required.
* No default.

integrationKey = <string>
* Duo's integration key for the Splunk platform.
* Must be of size = 20.
* Integration key is obfuscated before being saved here for security.
* Required.
* No default.

secretKey = <string>
* Duo's secret key for the Splunk platform.
* Must be of size = 40.
* Secret key is obfuscated before being saved here for security.
* Required.
* No default.

appSecretKey = <string>
* The Splunk application specific secret key which should be random and locally generated.
* Must be at least of size = 40 or longer.
* This secret key is not shared with Duo.
* Application secret key is obfuscated before being saved here for security.
* Required.
* No default.

failOpen = <boolean>
* If set to "true", the Splunk platform bypasses Duo multifactor authentication when
  the service is unavailable.
* This setting is optional.
* Default: false

timeout = <integer>
* The connection timeout, in seconds, for the outbound Duo HTTPS connection.
* This setting is optional.
* Default: The default Splunk HTTPS connection timeout

sslVersions = <versions_list>
* Comma-separated list of SSL versions to support for incoming connections.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* This setting is optional.
* Default: The value of 'sslVersions in the server.conf file

cipherSuite = <cipher suite string>
* The cipher string for the HTTP server.
* This setting is optional.
* Default: The value of 'cipherSuite' in the server.conf file

ecdhCurves = <comma separated list of ec curves>
* ECDH curves to use for ECDH key negotiation.
* This setting is optional.
* Default: The value of 'ecdhCurves' in the server.conf file

sslVerifyServerCert = <boolean>
* If set to true, the Splunk platform confirms the server that is
  being connected to is a valid server (authenticated).
* Both the common name and the alternate name of the server are then
  checked for a match, if they are specified in this configuration file.
* A certificate is considered verified if either is matched.
* This setting is optional.
* Default: false

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* If set, the Splunk platform limits outbound Duo HTTPS connections
  to a host which use a certificate with one of the listed common names.
* 'sslVerifyServerCert' must be set to "true" for this setting to work.
* This setting is optional.
* No default.

sslAltNameToCheck =  <alternateName1>, <alternateName2>, ...
* If set, the Splunk platform limits outbound duo HTTPS connections
  to host which use a certificate with one of the listed alternate names.
* 'sslVerifyServerCert' must be set to true for this setting to work.
* This setting is optional.
* No default.

sslRootCAPath = <path>
* The full path of a PEM format file containing one or more
  root CA certificates concatenated together.
* This Root CA must match the CA in the certificate chain of the SSL certificate
  returned by the Duo server.
* This setting is optional.
* No default.

useClientSSLCompression = <boolean>
* Whether or not compression is enabled between the Splunk instance and a Duo server.
* If set to "true" on client side, compression is enabled between the server and client
  as long as the server also supports it.
* If not set, the Splunk platform uses the client SSL compression setting provided in server.conf
* This setting is optional.
* Default: false
```

RSA MFA 供应商设置

```
[<rsa-externalTwoFactorAuthSettings-key>]
* <rsa-externalTwoFactorAuthSettings-key> must be the value listed in the
  externalTwoFactorAuthSettings setting specified in the [authentication]
  stanza.
* This stanza contains RSA-specific multifactor authentication settings and is
  activated only when you set 'externalTwoFactorAuthVendor' to "RSA".
* All the following settings can be obtained from RSA Authentication Manager 8.2 SP1.

authManagerUrl = <string>
* URL of the REST endpoint of RSA Authentication Manager.
* The Splunk platform sends authentication requests to this URL.
* Specify a HTTPS-based URL. the Splunk platform does not support communication over HTTP.
* Required.
* No default.

accessKey = <string>
* Access key needed by the Splunk platform to communicate with RSA Authentication Manager.
* Required.
* No default.

clientId = <string>
* The clientId is the agent name created on RSA Authentication Manager.
* Required.
* No default.

failOpen = <boolean>
* Whether or not the Splunk platform allows login if the RSA MFA server is unavailable.
* If set to "true", allow login in case authentication server is unavailable.
* This setting is optional.
* Default: false

timeout = <integer>
* The connection timeout, in seconds, for the outbound HTTPS connection to the RSA
  server.
* This setting is optional.
* Default: 5

messageOnError = <string>
* The message that the Splunk platform shows to the user in the case of a login failure.
* You can specify contact of admin or link to a diagnostic page.
* This setting is optional.
* No default.

sslVersions = <versions_list>
* Comma-separated list of SSL versions to support for incoming connections.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* If not set, the Splunk platform uses the value of 'sslVersions' in server.conf.
* This setting is optional.
* Default: tls1.2

cipherSuite = <cipher suite string>
* If set, the Splunk platform uses the specified cipher string for the HTTP server.
* If not set, the Splunk platform uses the value for 'cipherSuite' specified in server.conf
* This setting is optional.

ecdhCurves = <comma separated list of ec curves>
* ECDH curves to use for ECDH key negotiation.
* This setting is optional.
* Default: The value of 'ecdhCurves' in the server.conf file

sslVerifyServerCert = <boolean>
* Determines whether to verify the server being connected to is authenticated.
* If this is set to true, you should make sure that the server that is
  being connected to is a valid one (authenticated). Both the common
  name and the alternate name of the server are then checked for a
  match if they are specified in this configuration file.  A
  certificate is considered verified if either is matched.
* This setting is optional.
* Default: true

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* If this value is set, the Splunk platform limits outbound RSA HTTPS connections
  to host which use a cert with one of the listed common names.
* 'sslVerifyServerCert' must be set to true for this setting to work.
* This setting is optional.
* No default.

sslAltNameToCheck =  <alternateName1>, <alternateName2>, ...
* If this value is set, the Splunk platform limits outbound RSA HTTPS connections
  to host which use a cert with one of the listed alternate names.
* 'sslVerifyServerCert' must be set to true for this setting to work.
* This setting is optional.
* No default.


sslRootCAPath = <path>
* The <path> must refer to full path of a PEM format file containing one or more
  root CA certificates concatenated together.
* Required.
* This Root CA must match the CA in the certificate chain of the SSL certificate
  returned by RSA server.
* No default.
```

```
sslVersionsForClient = <versions_list>
* Comma-separated list of SSL versions to support for outgoing HTTP connections.
* If not set, Splunk uses the value for 'sslVersionsForClient' in server.conf.
* This setting is optional.
* Default: tls1.2

replicateCertificates = <boolean>
* Whether or not RSA certificate files are automatically replicated across search head
  cluster nodes.
* If set to "true", RSA certificate files are replicated across nodes in a search head
  cluster.
* If disabled, RSA certificate files need to be replicated manually across SHC or else
  MFA verification fails.
* This setting has no effect if search head clustering is disabled.
* Default: true

enableMfaAuthRest = <boolean>
* Determines whether splunkd requires RSA two-factor authentication against REST endpoints.
* When two-factor authentication is enabled for REST endpoints, either you
  must log in to the Splunk instance with a valid RSA passcode, or requests
  to those endpoints must include a valid token in the following format:
  "curl -k -u <username>:<password>:<token> -X GET <resource>"
* If set to "true", splunkd requires RSA REST two-factor authentication.
* If set to "false", splunkd does not require REST two-factor authentication.
* This setting is optional.
* Default: false
```

authentication.conf.example

```
#   Version 8.2.0
#
# This is an example authentication.conf. authentication.conf is used to
# configure LDAP, Scripted, SAML and Proxy SSO authentication in addition
# to Splunk's native authentication.
#
# To use one of these configurations, copy the configuration block into
# authentication.conf in $SPLUNK_HOME/etc/system/local/.  You must reload
# auth in manager or restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

##### Use just Splunk's built-in authentication (default):
[authentication]
authType = Splunk


##### LDAP examples

#### Basic LDAP configuration example
[authentication]
authType = LDAP
authSettings = ldaphost

[ldaphost]
host = ldaphost.domain.com
port = 389
SSLEnabled = 0
bindDN = cn=Directory Manager
bindDNpassword = password
userBaseDN = ou=People,dc=splunk,dc=com
userBaseFilter = (objectclass=splunkusers)
groupBaseDN = ou=Groups,dc=splunk,dc=com
groupBaseFilter = (objectclass=splunkgroups)
```

```
userNameAttribute = uid
realNameAttribute = givenName
groupMappingAttribute = dn
groupMemberAttribute = uniqueMember
groupNameAttribute = cn
timelimit = 10
network_timeout = 15

# This stanza maps roles you have created in authorize.conf to LDAP Groups
[roleMap_ldaphost]
admin = SplunkAdmins

#### Example using the same server as 'ldaphost', but treating each user as
#### their own group
[authentication]
authType = LDAP
authSettings = ldaphost_usergroups

[ldaphost_usergroups]
host = ldaphost.domain.com
port = 389
SSLEnabled = 0
bindDN = cn=Directory Manager
bindDNpassword = password
userBaseDN = ou=People,dc=splunk,dc=com
userBaseFilter = (objectclass=splunkusers)
groupBaseDN = ou=People,dc=splunk,dc=com
groupBaseFilter = (objectclass=splunkusers)
userNameAttribute = uid
realNameAttribute = givenName
groupMappingAttribute = uid
groupMemberAttribute = uid
groupNameAttribute = uid
timelimit = 10
network_timeout = 15

[roleMap_ldaphost_usergroups]
admin = admin_user1;admin_user2;admin_user3;admin_user4
power = power_user1;power_user2
user = user1;user2;user3

#### Sample Configuration for Active Directory (AD)
[authentication]
authSettings = AD
authType = LDAP

[AD]
SSLEnabled = 1
bindDN = ldap_bind@splunksupport.kom
bindDNpassword = ldap_bind_user_password
groupBaseDN = CN=Groups,DC=splunksupport,DC=kom
groupBaseFilter =
groupMappingAttribute = dn
groupMemberAttribute = member
groupNameAttribute = cn
host = ADbogus.splunksupport.kom
port = 636
realNameAttribute = cn
userBaseDN = CN=Users,DC=splunksupport,DC=kom
userBaseFilter =
userNameAttribute = sAMAccountName
timelimit = 15
network_timeout = 20
anonymous_referrals = 0

[roleMap_AD]
admin = SplunkAdmins
power = SplunkPowerUsers
user = SplunkUsers
```

```
#### Sample Configuration for Sun LDAP Server
[authentication]
authSettings = SunLDAP
authType = LDAP

[SunLDAP]
SSLEnabled = 0
bindDN = cn=Directory Manager
bindDNpassword = Directory_Manager_Password
groupBaseDN = ou=Groups,dc=splunksupport,dc=com
groupBaseFilter =
groupMappingAttribute = dn
groupMemberAttribute = uniqueMember
groupNameAttribute = cn
host = ldapbogus.splunksupport.com
port = 389
realNameAttribute = givenName
userBaseDN = ou=People,dc=splunksupport,dc=com
userBaseFilter =
userNameAttribute = uid
timelimit = 5
network_timeout = 8

[roleMap_SunLDAP]
admin = SplunkAdmins
power = SplunkPowerUsers
user = SplunkUsers

#### Sample Configuration for OpenLDAP
[authentication]
authSettings = OpenLDAP
authType = LDAP

[OpenLDAP]
bindDN = uid=directory_bind,cn=users,dc=osx,dc=company,dc=com
bindDNpassword = directory_bind_account_password
groupBaseFilter =
groupNameAttribute = cn
SSLEnabled = 0
port = 389
userBaseDN = cn=users,dc=osx,dc=company,dc=com
host = hostname_OR_IP
userBaseFilter =
userNameAttribute = uid
groupMappingAttribute = uid
groupBaseDN = dc=osx,dc=company,dc=com
groupMemberAttribute = memberUid
realNameAttribute = cn
timelimit = 5
network_timeout = 8
dynamicGroupFilter = (objectclass=groupOfURLs)
dynamicMemberAttribute = memberURL
nestedGroups = 1

[roleMap_OpenLDAP]
admin = SplunkAdmins
power = SplunkPowerUsers
user = SplunkUsers


##### Scripted Auth examples

#### The following example is for RADIUS authentication:
[authentication]
authType = Scripted
authSettings = script

[script]
```

```
scriptPath = "$SPLUNK_HOME/bin/python" "$SPLUNK_HOME/share/splunk/authScriptSamples/radiusScripted.py"

# Cache results for 1 second per call
[cacheTiming]
userLoginTTL    = 1
userInfoTTL     = 1


#### The following example works with PAM authentication:
[authentication]
authType = Scripted
authSettings = script

[script]
scriptPath = "$SPLUNK_HOME/bin/python" "$SPLUNK_HOME/share/splunk/authScriptSamples/pamScripted.py"

# Cache results for different times per function
[cacheTiming]
userLoginTTL    = 30s
userInfoTTL     = 1min


##### SAML auth example

[authentication]
authSettings = samlv2
authType = SAML

[samlv2]
attributeQuerySoapPassword = changeme
attributeQuerySoapUsername = test
entityId = test-splunk
idpAttributeQueryUrl = https://exsso/idp/attrsvc.ssaml2
idpCertPath = /home/splunk/etc/auth/idp.crt
idpSSOUrl = https://exsso/idp/SSO.saml2
idpSLOUrl = https://exsso/idp/SLO.saml2
signAuthnRequest = true
signedAssertion = true
attributeQueryRequestSigned = true
attributeQueryResponseSigned = true
redirectPort = 9332
cipherSuite = TLSv1 MEDIUM:@STRENGTH
nameIdFormat = urn:oasis:names:tc:SAML:1.1:nameid-format:emailAddress

[roleMap_SAML]
admin = SplunkAdmins
power = SplunkPowerUsers
user = all

[userToRoleMap_SAML]
samluser = user::Saml Real Name::samluser@domain.com

[authenticationResponseAttrMap_SAML]
role = "http://schemas.microsoft.com/ws/2008/06/identity/claims/groups"
mail = "http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress"
realName = "http://schemas.microsoft.com/identity/claims/displayname"

# Multifactor authentication example
[authentication]
externalTwoFactorAuthVendor = duo
externalTwoFactorAuthSettings = duo-mfa

# Duo specific authentication setting example
[duo-mfa]
apiHostname = api-xyz.duosecurity.com
appSecretKey = mustBeARandomStringOfSize40OrLonger
integrationKey = mustBeADuoProvidedStringOfSize20
secretKey = mustBeADuoProvidedStringOfSize40
```

```
##### Proxy SSO auth example

[authentication]
authSettings = my_proxy
authType = ProxySSO

[my_proxy]
excludedUsers = user1,user2
excludedAutoMappedRoles = admin
defaultRoleIfMissing = user

[roleMap_proxySSO]
admin = group1;group2
user = group1;group3

[userToRoleMap_proxySSO]
proxy_user1 = user
proxy_user2 = power;can_delete

[splunk_auth]
minPasswordLength = 8
minPasswordUppercase = 1
minPasswordLowercase = 1
minPasswordSpecial = 1
minPasswordDigit = 0
expirePasswordDays = 90
expireAlertDays = 15
expireUserAccounts = true
forceWeakPasswordChange = false
lockoutUsers = true
lockoutAttempts = 5
lockoutThresholdMins = 5
lockoutMins = 30
enablePasswordHistory = false
passwordHistoryCount = 24
```

authorize.conf

以下为 authorize.conf 的规范和示例文件。

authorize.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# create roles in authorize.conf.
#
# There is an authorize.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name authorize.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see authorize.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each .conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file takes precedence.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

[default]

```
srchFilterSelecting = <boolean>
* Determines whether a role's search filters are used for selecting or
  eliminating during role inheritance.
* If "true", the search filters are used for selecting. The filters are joined
  with an OR clause when combined.
* If "false", the search filters are used for eliminating. The filters are joined
  with an AND clause when combined.
* Example:
  * role1 srchFilter = sourcetype!=ex1 with selecting=true
  * role2 srchFilter = sourcetype=ex2 with selecting = false
  * role3 srchFilter = sourcetype!=ex3 AND index=main with selecting = true
  * role3 inherits from role2 and role 2 inherits from role1
  * Resulting srchFilter = ((sourcetype!=ex1) OR
    (sourcetype!=ex3 AND index=main)) AND ((sourcetype=ex2))
* Default: true
```

[capability::<capability>]

```
* DO NOT edit, remove, or add capability stanzas. The existing capabilities
  are the full set of Splunk system capabilities.
* the Splunk platform adds all of its capabilities this way.
* For the default list of capabilities and assignments, see authorize.conf
  under the 'default' directory.
* Only alphanumeric characters and "_" (underscore) are allowed in
  capability names.
  Examples:
  * edit_visualizations
  * view_license1
* Descriptions of specific capabilities are listed below.
```

[role_<roleName>]

```
<capability> = <enabled>
* A capability that is enabled for this role. You can list many capabilities
  for each role.
* NOTE: 'enabled' is the only accepted value here, as capabilities are
  disabled by default.
* Roles inherit all capabilities from imported roles, and you cannot disable
  inherited capabilities.
* Role names cannot have uppercase characters. Usernames, however, are
  case-insensitive.
* Role names cannot contain spaces, colons, semicolons, or forward slashes.

importRoles = <semicolon-separated list>
```

```
* A list of other roles and their associated capabilities that the Splunk
  platform should import.
* Importing other roles also imports the other aspects of that role, such as
  allowed indexes to search.
* Default: A role imports no other roles

grantableRoles = <semicolon-separated list>
* A list of roles that determines which users, roles, and capabilities
  that a user with a specific set of permissions can manage.
* This setting lets you limit the scope of user, role, and capability
  management that these users can perform.
* When you set 'grantableRoles', a user that holds a role with the
  'edit_roles_grantable' and 'edit_user' capabilities can do only the
  following with regards to access control management for the Splunk
  Enterprise instance:
  * They can edit only the roles that contain capabilities that are a
    union of the capabilities in the roles that you specify
    with this setting.
  * Any new roles that they create can contain only the capabilities
    that are a union of these capabilities.
  * Any new roles that they create can search only the indexes that
    have been assigned to all roles that have been specified with
    this setting.
  * They can see only users who have been assigned roles that contain
    capabilities that are a union of these capabilities.
  * They can assign users only to roles whose assigned capabilities are a
    union of these capabilities.
* For this setting to work, you must assign a user at least one role
  that:
  * Has both the 'edit_roles_grantable' and 'edit_user' capabilities
    assigned to it, and
  * Does NOT have the 'edit_roles' capability assigned to it.
* Example:
  * Consider a Splunk instance where role1-role4 have the
    following capabilities:

    role1: cap1, cap2, cap3
    role2: cap4, cap5, cap6
    role3: cap1, cap6
    role4: cap4, cap8

  * And user1-user4 have been assigned the following roles:
    user1: role1
    user2: role2
    user3: role3
    user4: role4

  * If you define the 'grantableRoles' setting as follows for
    the 'power' role:

  *      [role_power]
  *      grantableRoles = role1;role2

  * and edit the role so that the 'edit_roles_grantable'
    capability is selected, and the 'edit_roles' capability
    is not selected, then a user that has been assigned the 'power' role
    can make only the following access control changes on the instance:
    * View or edit the following users: user1, user2, user3
    * Assign the following roles: role1, role2, role3
    * Create roles with the following capabilities: cap1, cap2, cap3,
    cap4, cap5, cap6
* Only the 'admin' role holds the 'edit_roles_grantable' capability on
  a new Splunk Enterprise installation.
* If you make changes to the 'admin' role, 'grantableRoles' is set to
  "admin".
* This setting does not work if you use tokens to authenticate into a
  Splunk Enterprise instance.
* Default (if 'admin' role is edited): admin
* Default (otherwise): No default
```

```
srchFilter = <semicolon-delimited list>
* A list of search filters for this role.
* To override any search filters from imported roles, set this to "*", as
  the 'admin' role does.
* Default: the Splunk platform does not perform search filtering

srchTimeWin = <integer>
* Maximum time range, in seconds, of a search.
* The Splunk platform applies this search time range limit backwards from the
  latest time specified for a search.
* If a user has multiple roles with distinct search time range limits, or has
  roles that inherit from roles with distinct search time range limits,
  the Splunk platform applies the least restrictive search time range limits to
  the role.
  * For example, if user X has role A (srchTimeWin = 30s), role B (srchTimeWin
    = 60s), and role C (srchTimeWin = 3600s), user X gets a maximum search time
    range of 1 hour.
* When set to '-1', the role does not have a search time range limit. This
  value can be overidden by the maximum search time range value of an inherited
  role.
* When set to '0' (infinite), the role does not have a search time range limit.
  This value cannot be overidden by the maximum search time range value of an
  inherited role.
* This setting does not apply to real-time searches.
* Default: -1

srchTimeEarliest = <integer>
* The earliest event time that can be searched, in seconds before the current
  wall clock time.
* If a user is a member of a role with a 'srchTimeEarliest' limit, or a role
  that inherits from other roles with 'srchTimeEarliest' limits, the Splunk
  platform applies the least restrictive time limit from the roles to the user.
  * For example, if a user is a member of role A (srchTimeEarliest = 86400),
    and inherits role B (srchTimeEarliest = 3600) and role C
    (srchTimeEarliest = -1 (default)), the user gets an effective earliest time
    limit of 1 day (86400 seconds) ago.
* When set to '-1', the role does not have a earliest time limit. This
  value can be overidden by the earliest time value of an inherited role.
* When set to '0' (infinite), the role does not have an earliest time limit.
  This value cannot be overidden by the earliest time limit value of an
  inherited role.
* This setting does not apply to real-time searches.
* Default: -1

srchDiskQuota = <integer>
* The maximum amount of disk space, in megabytes, that can be used by search
  jobs for a specific user with this role.
* In search head clustering environments, this setting takes effect on a
  per-member basis. There is no cluster-wide accounting.
* The dispatch manager checks the quota at the dispatch time of a search.
  Additionally, the search process checks the quota at intervals that are defined
  in the 'disk_usage_update_period' setting in limits.conf as long as the
  search is active.
* A user can occasionally exceed the quota because the search process does
  not constantly check the quota.
* Exceeding this quota causes the search to be auto-finalized immediately,
  even if there are results that have not yet been returned.
* Default: 100

srchJobsQuota = <integer>
* The maximum number of concurrently running historical searches that a user
  with this role can have.
* When set to 0, this setting does not limit the number of historical search
  jobs that can run concurrently for a user with this role.
* When 'enable_cumulative_quota = true' in limits.conf, the
  'cumulativeSrchJobsQuota' setting overrides this setting.
  * For example, under this condition, if you have a role named 'foo' for which
    'cumulativeSrchJobsQuota = 350' while 'srchJobsQuota = 100' and you have 4
    users with the 'foo' role, those users can only run 350 searches
    concurrently. If you set 'enable_cumulative_quota = false' those users can
    run 400 searches concurrently.
* This setting excludes real-time searches. See the 'rtSrchJobsQuota' setting.
* Default: 3

rtSrchJobsQuota = <integer>
* The maximum number of concurrently running real-time searches that a user
  with this role can have.
* When set to 0, this setting does not limit the number of real-time search
  jobs that can run concurrently for a user with this role.
* When 'enable_cumulative_quota = true' in limits.conf, the
  'cumulativeRTSrchJobsQuota' setting overrides this setting.
  * For example, under this condition, if you have a role named 'foo' for which
    'cumulativeRTSrchJobsQuota = 350' while 'rtSrchJobsQuota = 100' and you
    have 4 users with the 'foo' role, those users can only run 350 searches
    concurrently. If you set 'enable_cumulative_quota = false' those users can
    run 400 searches concurrently.
* Default: 6

srchMaxTime = <integer><unit>
* The maximum amount of time that search jobs from specific users with this role are
  allowed to run.
* After a search runs for this amount of time, it auto-finalizes.
* If the role inherits from other roles, the value of the 'srchMaxTime' setting is
  specified in the included roles.
* This maximum value does not apply to real-time searches.
* Examples: 1h, 10m, 2hours, 2h, 2hrs, 100s
* Default: 100days

srchIndexesDefault = <semicolon-separated list>
* A list of indexes to search when no index is specified.
* These indexes can be wild-carded ("*"), with the exception that "*" does not
  match internal indexes.
* To match internal indexes, start with an underscore ("_"). All internal indexes are
  represented by "_*".
* The wildcard character "*" is limited to match either all the non-internal
  indexes or all the internal indexes, but not both at once.
* If you make any changes in the "Indexes searched by default" Settings panel
  for a role in Splunk Web, those values take precedence, and any wildcards
  you specify in this setting are lost.
* No default.

srchIndexesAllowed = <semicolon-separated list>
* A list of indexes that this role is allowed to search.
* Follows the same wildcarding semantics as the 'srchIndexesDefault' setting.
* If you make any changes in the "Indexes" Settings panel for a role in Splunk Web,
  those values take precedence, and any wildcards you specify in this setting are lost.
* No default.

srchIndexesDisallowed = <semicolon-separated list>
* A list of indexes that this role does not have permission to search on or delete.
* 'srchIndexesDisallowed' takes precedence over 'srchIndexesAllowed', 'srchIndexesDefault'
  and 'deleteIndexesAlowed'. If you specify indexes in both this setting and the
  other settings, users will be unable to search on or delete those indexes.
* Follows the same wildcarding semantics as the 'srchIndexesDefault' setting.
* If you make any changes in the "Indexes" Settings panel for a role in Splunk Web,
  those values take precedence, and any wildcards you specify in this setting are lost.
* No default.

deleteIndexesAllowed = <semicolon-separated list>
* A list of indexes that this role is allowed to delete.
* This setting must be used in conjunction with the 'delete_by_keyword' capability.
* Follows the same wildcarding semantics as the 'srchIndexesDefault' setting.
* No default.

cumulativeSrchJobsQuota = <integer>
* The maximum total number of concurrently running historical searches
  across all members of this role.
```

```
* For this setting to take effect, you must set the 'enable_cumulative_quota'
  setting to "true" in limits.conf.
* If a user belongs to multiple roles, the user's searches count against
  the role with the largest cumulative search quota. Once the quota for
  that role is consumed, the user's searches count against the role with
  the next largest quota, and so on.
* In search head clustering environments, this setting takes effect on a
  per-member basis. There is no cluster-wide accounting.
* When set to 0, this setting does not limit the number of historical search
  jobs that can run concurrently across all users with this role.
* Default: 0

cumulativeRTSrchJobsQuota = <integer>
* The maximum total number of concurrently running real-time searches
  across all members of this role.
* For this setting to take effect, you must set the 'enable_cumulative_quota'
  setting to "true" in limits.conf.
* If a user belongs to multiple roles, the user's searches count against
  the role with the largest cumulative search quota. Once the quota for
  that role is consumed, the user's searches count against the role with
  the next largest quota, and so on.
* In search head clustering environments, this setting takes effect
  on a per-member basis. There is no cluster-wide accounting.
* When set to 0, this setting does not limit the number of historical search
  jobs that can run concurrently across all users with this role.
* Default: 0

federatedProviders = <semicolon-separated list>
* List of federated providers that the role can access.
* Allows a user to run federated searches defined in the savedsearches.conf file. This
* setting must be used in conjunction with fsh_search capability.
* Defaults to none.

####
# Descriptions of Splunk system capabilities.
# Capabilities are added to roles to which users are then assigned.
# When a user is assigned a role, they acquire the capabilities added to that role.
####
```

[tokens_auth]

```
* Settings for token authorization.

expiration = <relative-time-modifier>|never
* The relative time when an authorization token expires.
* The syntax for using time modifiers is:
  * [+]<time_integer><time_unit>@<time_unit>
  * Where time_integer is an integer value and time_unit is relative
  * time unit in seconds (s), minutes (m), hours (h) or days (d) etc.
* The steps to specify a relative time modifier are:
  * Indicate the time offset from the current time.
  * Define the time amount, which is a number and a unit.
  * Specify a "snap to" time unit. The time unit indicates the nearest
    or latest time to which your time amount rounds down.
* For example, if you configure this setting to "+2h@h", the token expires at
  the top of the hour, two hours from the current time.
* For more information on relative time identifiers, see "Time Modifiers" in
  the Splunk Enterprise Search Reference Manual.
* The default value indicates that a token never expires. To set token
  expiration, you must set this value to a relative time value.
* Your account must hold the admin role to update this setting.
* This setting is optional.
* Default: never

ephemeralExpiration = <relative-time-modifier>
* The relative time when an ephemeral authorization token expires.
* An ephemeral token is identical to a standard authorization token, with the
```

```
  following exceptions:
  * The auth system does not keep the token in App Key Value Store.
    This means you cannot modify it after creating it.
  * Ephemeral tokens must always expire, meaning they cannot be given an
    expiration of "never".
  * Currently, ephemeral tokens can only be created using REST.
* The syntax for using time modifiers is:
  * [+]<time_integer><time_unit>@<time_unit>
  * Where time_integer is an integer value and time_unit is relative
  * time unit in seconds (s), minutes (m), hours (h) or days (d) etc.
* The steps to specify a relative time modifier are:
  * Indicate the time offset from the current time.
  * Define the time amount, which is a number and a unit.
  * Specify a "snap to" time unit. The time unit indicates the nearest
    or latest time to which your time amount rounds down.
* For example, if you configure this setting to "+2h@h", the token expires at
  the top of the hour, two hours from the current time.
* For more information on relative time identifiers, see "Time Modifiers" in
  the Splunk Enterprise Search Reference Manual.
* To set ephemeral token expiration, you must set this value to a relative time
  value.
* Your account must hold the admin role to update this setting.
* This setting is optional.
* Maximum: +6h
* Default: +1h

disabled = <boolean>
* Disables and enables Splunk token authorization.
* Default: true
```

[capability::accelerate_datamodel]

```
* Lets a user enable or disable data model acceleration.
```

[capability::accelerate_search]

```
* Lets a user enable or disable acceleration for reports.
* The assigned role must also be granted the 'schedule_search' capability.
```

[capability::admin_all_objects]

```
* Lets a user access all objects in the system, such as user objects and
  knowledge objects.
* Lets a user bypass any Access Control List (ACL) restrictions, similar
  to the way root access in a *nix environment does.
* the Splunk platform checks this capability when accessing manager pages and objects.
```

[capability::edit_tokens_settings]

```
* Lets a user access all token auth settings in the system, such as turning the
  the feature on/off and system-wide expiration.
* Splunk checks this capability when accessing manager pages and objects.
```

[capability::change_authentication]

```
* Lets a user change authentication settings through the authentication endpoints.
* Lets the user reload authentication.
```

[capability::change_own_password]

```
* Lets a user change their own password. You can remove this capability
```

```
  to control the password for a user.
```

[capability::list_tokens_scs]

```
* Lets a user retrieve a Splunk Cloud Services (SCS) token for an SCS service with which this
  Splunk Cloud deployment has been configured to communicate.
```

[capability::delete_by_keyword]

```
* Lets a user use the 'delete' command.
* NOTE: The 'delete' command does not actually delete the raw data on disk.
  Instead, it masks the data (via the index) from showing up in search results.
```

[capability::delete_messages]

```
* Lets a user delete system messages that appear in the UI navigation bar.
```

[capability::edit_log_alert_event]

```
* Lets a user log an event when an alert condition is met. Also lets the user
  select the "Log an event" option for an alert action in Splunk Web.
```

[capability::dispatch_rest_to_indexers]

```
* Lets a user dispatch the REST search command to indexers.
```

[capability::edit_authentication_extensions]

```
* Lets a user change the authentication extensions through the
  authentication endpoints.
```

[capability::edit_bookmarks_mc]

```
* Lets a user add bookmark URLs within the Monitoring Console.
```

[capability::edit_deployment_client]

```
* Lets a user edit the deployment client.
* Lets a user edit a deployment client admin endpoint.
```

[capability::edit_deployment_server]

```
* Lets a user edit the deployment server.
* Lets a user edit a deployment server admin endpoint.
* Lets a user change or create remote inputs that are pushed to the
  forwarders and other deployment clients.
```

[capability::list_dist_peer]

```
* Lets a user list/read peers for distributed search.
```

[capability::edit_dist_peer]

```
* Lets a user add and edit peers for distributed search.
* Supercedes list_dist_peer also allows list/read
```

[capability::edit_encryption_key_provider]

```
* Lets a user view and edit keyprovider properties when using
  the Server-Side Encryption (SSE) feature for a remote storage volume.
```

[capability::request_pstacks]

```
* Lets a user trigger pstacks generation of the main splunkd process
  using a REST endpoint.
```

[capability::edit_watchdog]

```
* Lets a user reconfigure watchdog settings using a REST endpoint.
```

[capability::edit_forwarders]

```
* Lets a user edit settings for forwarding data, including settings
  for SSL, backoff schemes, and so on.
* Also used by TCP and Syslog output admin handlers.
```

[capability::edit_health]

```
* Lets a user disable or enable health reporting for a feature in the splunkd
  health status tree through the server/health-config/{feature_name} endpoint.
```

[capability::edit_health_subset]

```
* Lets a user disable or enable health reporting for a feature in the
  "health_subset" view of the health status tree.
* Actions are performed through the server/health-config/{feature_name}
  endpoint.
```

[capability::edit_httpauths]

```
* Lets a user edit and end user sessions through the httpauth-tokens endpoint.
```

[capability::edit_indexer_cluster]

```
* Lets a user edit or manage indexer clusters.
```

[capability::edit_indexerdiscovery]

```
* Lets a user edit settings for indexer discovery, including settings
  for master_uri, pass4SymmKey, and so on.
* Also used by Indexer Discovery admin handlers.
```

[capability::edit_input_defaults]

```
* Lets a user change the default hostname for input data through the server
  settings endpoint.
```

[capability::edit_local_apps]

```
* Lets a user edit apps on the local Splunk instance through the
  local apps endpoint.
* For full access to app management, also add the 'install_apps'
  capability to the role.
* To enable enforcement of the "install_apps" capability, see the
  "enable_install_apps" setting in limits.conf.
```

[capability::edit_monitor]

```
* Lets a user add inputs and edit settings for monitoring files.
* Also used by the standard inputs endpoint as well as the oneshot input
  endpoint.
```

[capability::edit_modinput_winhostmon]

```
* Lets a user add and edit inputs for monitoring Windows host data.
```

[capability::edit_modinput_winnetmon]

```
* Lets a user add and edit inputs for monitoring Windows network data.
```

[capability::edit_modinput_winprintmon]

```
* Lets a user add and edit inputs for monitoring Windows printer data.
```

[capability::edit_modinput_perfmon]

```
* Lets a user add and edit inputs for monitoring Windows performance.
```

[capability::edit_modinput_admon]

```
* Lets a user add and edit inputs for monitoring Active Directory (AD).
```

[capability::edit_roles]

```
* Lets a user edit roles.
* Lets a user change the mappings from users to roles.
* Used by both user and role endpoints.
```

[capability::edit_roles_grantable]

```
* Lets a user edit roles and change user-to-role mappings for a limited
  set of roles.
* To limit this ability, also assign the 'edit_roles_grantable' capability
  and configure the 'grantableRoles' setting in authorize.conf.
        * For example:
              grantableRoles = role1;role2;role3
      This configuration lets a user create roles using the subset of
      capabilities that the user has in their 'grantable_roles' setting.
```

[capability::edit_scripted]

```
* Lets a user create and edit scripted inputs.
```

[capability::edit_search_head_clustering]

```
* Lets a user edit and manage search head clustering.
```

[capability::edit_search_concurrency_all]

```
* Lets a user edit settings related to maximum concurrency of searches.
```

[capability::edit_search_concurrency_scheduled]

```
* Lets a user edit settings related to concurrency of scheduled searches.
```

[capability::edit_search_scheduler]

```
* Lets a user disable and enable the search scheduler.
```

[capability::edit_search_schedule_priority]

```
* Lets a user assign a search a higher-than-normal schedule priority.
```

[capability::edit_search_schedule_window]

```
* Lets a user edit a search schedule window.
```

[capability::edit_search_server]

```
* Lets a user edit general distributed search settings like timeouts,
  heartbeats, and deny lists.
```

[capability::edit_server]

```
* Lets a user edit general server and introspection settings, such
  as the server name, log levels, and so on.
* This capability also inherits the ability to read general server
  and introspection settings.
```

[capability::edit_server_crl]

```
* Lets a user reload Certificate Revocation Lists (CRLs) within Splunk.
* A CRL is a list of digital certificates that have been revoked by the
  issuing certificate authority (CA) before their scheduled expiration
  date and should no longer be trusted.
```

[capability::edit_sourcetypes]

```
* Lets a user create and edit sourcetypes.
```

[capability::edit_splunktcp]

```
* Lets a user change settings for receiving TCP input from another Splunk
  instance.
```

[capability::edit_splunktcp_ssl]

```
* Lets a user view and edit SSL-specific settings for Splunk TCP input.
```

[capability::edit_splunktcp_token]

```
* Lets a user view or edit splunktcptokens. The tokens can be used on a
  receiving system to only accept data from forwarders that have been
  configured with the same token.
```

[capability::edit_tcp]

```
* Lets a user change settings for receiving general TCP inputs.
```

[capability::edit_telemetry_settings]

```
* Lets a user change settings for opting in and sending telemetry data.
```

[capability::edit_token_http]

```
* Lets a user create, edit, display, and remove settings for HTTP token input.
* Enables the HTTP Events Collector feature, which is a way to send data to
  Splunk Enterprise and Splunk Cloud.
```

[capability::edit_tokens_all]

```
* Lets a user issue tokens to all users.
```

[capability::edit_tokens_own]

```
* Lets a user issue tokens to themself.
```

[capability::edit_udp]

```
* Lets a user change settings for UDP inputs.
```

[capability::edit_user]

```
* Lets a user create, edit, or remove other users.
* Also lets a user manage certificates for distributed search.
* To limit this ability, assign the 'edit_roles_grantable' capability
  and configure the 'grantableRoles' setting in authorize.conf.
      * Example: grantableRoles = role1;role2;role3
```

[capability::edit_view_html]

```
* Lets a user create, edit, or otherwise modify HTML-based views.
```

[capability::edit_web_settings]

```
* Lets a user change the settings for web.conf through the system settings
  endpoint.
```

[capability::export_results_is_visible]

```
* Lets a user show or hide the Export button in Splunk Web.
* Disable this setting to hide the Export button and prevent users with
```

```
  this role from exporting search results.
```

[capability::get_diag]

```
* Lets the user generate a diag on a remote instance through the
  /streams/diag endpoint.
```

[capability::get_metadata]

```
* Lets a user use the metadata search processor.
```

[capability::get_typeahead]

```
* Enables typeahead for a user, both the typeahead endpoint and the
  'typeahead' search processor.
```

[capability::indexes_edit]

```
* Lets a user change any index settings such as file size and memory limits.
```

[capability::input_file]

```
* Lets a user add a file as an input through the inputcsv command (except for
  dispatch=t mode) and the inputlookup command.
```

[capability::install_apps]

```
* Lets a user install, uninstall, create, and update apps on the local
  Splunk platform instance through the apps/local endpoint.
* For full access to app management, also add the 'edit_local_apps'
  capability to the role.
* To enable enforcement of the "install_apps" capability, see the
  "enable_install_apps" setting in limits.conf.
```

[capability::license_tab]

```
* DEPRECATED.
* Lets a user access and change the license.
* Replaced with the 'license_edit' capability.
```

[capability::license_edit]

```
* Users with this capability can access and change license attributes and related information.
```

[capability::license_read]

```
* Users with this capability can access license attributes and related information.
```

[capability::license_view_warnings]

```
* Lets a user see if they are exceeding limits or reaching the expiration
  date of their license.
* License warnings are displayed on the system banner.
```

[capability::list_accelerate_search]

```
* This capability is a subset of the 'accelerate_search' capability.
* This capability grants access to the summaries that are required to run accelerated reports.
* Users with this capability, but without the 'accelerate_search' capability, can run,
  but not create, accelerated reports.
```

[capability::list_deployment_client]

```
* Lets a user list the deployment clients.
```

[capability::list_deployment_server]

```
* Lets a user list the deployment servers.
```

[capability::list_pipeline_sets]

```
* Lets a user list information about pipeline sets.
```

[capability::list_forwarders]

```
* Lets a user list settings for data forwarding.
* Used by TCP and Syslog output admin handlers.
```

[capability::list_health]

```
* Lets a user monitor the health of various Splunk features
  (such as inputs, outputs, clustering, and so on) through REST endpoints.
```

[capability::list_health_subset]

```
* Lets a user monitor the health of a subset of Splunk features (such as search
  scheduler) through REST endpoints.
* These features are more oriented towards the end user, rather than the Splunk
  administrator.
```

[capability::list_httpauths]

```
* Lets a user list user sessions through the httpauth-tokens endpoint.
```

[capability::list_indexer_cluster]

```
* Lets a user list indexer cluster objects such as buckets, peers, and so on.
```

[capability::list_indexerdiscovery]

```
* Lets a user view settings for indexer discovery.
* Used by indexer discovery handlers.
```

[capability::list_inputs]

```
* Lets a user view the list of inputs including files, TCP, UDP, scripts, and so on.
```

[capability::list_introspection]

```
* Lets a user read introspection settings and statistics for indexers, search,
  processors, queues, and so on.
```

[capability::list_search_head_clustering]

```
* Lets a user list search head clustering objects such as artifacts, delegated
  jobs, members, captain, and so on.
```

[capability::list_search_scheduler]

```
* Lets a user list search scheduler settings.
```

[capability::list_settings]

```
* Lets a user list general server and introspection settings such as the server
  name and log levels.
```

[capability::list_metrics_catalog]

```
* Lets a user list metrics catalog information such as the metric names,
  dimensions, and dimension values.
```

[capability::edit_metrics_rollup]

```
* Lets a user create/edit metrics rollup defined on metric indexes.
```

[capability::list_storage_passwords]

```
* Lets a user access the /storage/passwords endpoint.
* Lets the user perform GET operations.
* The 'admin_all_objects' capability must be added to the role in order for the user to
  perform POST operations to the /storage/passwords endpoint.
```

[capability::list_token_http]

```
* Lets a user display settings for HTTP token input.
```

[capability::list_tokens_all]

```
* Lets a user view all tokens.
```

[capability::list_tokens_own]

```
* Lets a user view their own tokens.
```

[capability::never_lockout]

```
* Allows a user's account to never lockout.
```

[capability::never_expire]

```
* Allows a user's account to never expire.
```

[capability::output_file]

```
* Lets a user create file outputs, including the 'outputcsv' command (except for
  dispatch=t mode) and the 'outputlookup' command.
```

[capability::pattern_detect]

```
* Controls ability to see and use the Patterns tab in the Search view.
```

[capability::request_remote_tok]

```
* Lets a user get a remote authentication token.
* Used for distributing search to old 4.0.x Splunk instances.
* Also used for some distributed peer management and bundle replication.
```

[capability::rest_apps_management]

```
* Lets a user edit settings for entries and categories in the Python remote
  apps handler.
* See restmap.conf.spec for more information.
```

[capability::rest_apps_view]

```
* Lets a user list various properties in the Python remote apps handler.
* See restmap.conf.spec for more info
```

[capability::rest_properties_get]

```
* Lets a user get information from the services/properties endpoint.
```

[capability::rest_properties_set]

```
* Lets a user edit the services/properties endpoint.
```

[capability::restart_splunkd]

```
* Lets a user restart the Splunk platform through the server control handler.
```

[capability::rtsearch]

```
* Lets a user run real-time searches.
```

[capability::run_collect]

```
* Lets a user run the 'collect' command.
```

[capability::run_mcollect]

```
* Lets a user run the 'mcollect' and 'meventcollect' commands.
```

[capability::run_msearch]

```
* Lets a user run the 'mpreview' and 'msearch' commands.
```

[capability::run_debug_commands]

```
* Lets a user run debugging commands, for example 'summarize'.
```

[capability::run_walklex]

```
* Lets a user run the 'walklex' command even if they have a role with a search filter.
```

[capability::schedule_rtsearch]

```
* Lets a user schedule real-time saved searches.
* You must enable the 'scheduled_search' and 'rtsearch' capabilities for the role.
```

[capability::schedule_search]

```
* Lets a user schedule saved searches, create and update alerts, and
  review triggered alert information.
```

[capability::metric_alerts]

```
* Lets a user create and update the new metric alerts.
```

[capability::search]

```
* Lets a user run a search.
```

[capability::search_process_config_refresh]

```
* Lets a user manually flush idle search processes through the
  'refresh search-process-config' CLI command.
```

[capability::use_file_operator]

```
* Lets a user use the 'file' command.
* The 'file' command is DEPRECATED.
```

[capability::upload_lookup_files]

```
* Lets a user upload files which can be used in conjunction with lookup definitions.
```

[capability::web_debug]

```
* Lets a user access /_bump and /debug/** web debug endpoints.
```

[capability::fsh_manage]

```
* Lets a user in Splunk platform implementations that have enabled Data
  Fabric Search (DFS) functionality manage the federated search settings.
* With the federated search settings, users with this role can add federated
  providers to federated.conf and manage user access to those federated
  providers through the maintenance of authentication settings.
* The 'admin' role has this capability enabled by default.
```

[capability::fsh_search]

```
* Lets a user in Splunk platform implementations that have enabled Data Fabric
  Search (DFS) functionality run federated searches.
* Lets a user create federated searches in the savedsearches.conf.
* The 'admin' role has this capability enabled by default.
```

[capability::edit_statsd_transforms]

```
* Lets a user define regular expressions to extract manipulated dimensions out of
  metric_name fields in statsd metric data using the
  services/data/transforms/statsdextractions endpoint.
* For example, dimensions can be mashed inside a metric_name field like
  "dimension1.metric_name1.dimension2" and you can use regular expressions to extract it.
```

[capability::edit_metric_schema]

```
* Lets a user define the schema of the log data that must be converted
  to metric format using the services/data/metric-transforms/schema endpoint.
```

[capability::list_workload_pools]

```
* Lets a user list and view workload pool and workload status information through
  the workloads endpoint.
```

[capability::edit_workload_pools]

```
* Lets a user create and edit workload pool and workload configuration information
  (except workload rule) through the workloads endpoint.
```

[capability::select_workload_pools]

```
* Lets a user select a workload pool for a scheduled or ad-hoc search.
```

[capability::list_workload_rules]

```
* Lets a user list and view workload rule information from the workloads/rules
  endpoint.
```

[capability::edit_workload_rules]

```
* Lets a user create and edit workload rules through the workloads/rules endpoint.
```

[capability::list_workload_policy]

```
* Lets a user view workload_policy.conf file settings through the workloads/policy endpoint.
* For now, it is used to view 'admission_rules_enabled' setting under
  stanza [search_admission_control].
* admission_rules_enabled = 1 means the admission rules are enabled in
  [[/manager/system/workload_management|Admission Rules UI]]
```

[capability::edit_workload_policy]

```
* Lets a user edit workload_policy.conf file settings through the workloads/policy endpoint.
* For now, it used to change 'admission_rules_enabled' setting under
  stanza [search admission control].
```

```
* admission_rules_enabled = 1 means the admission rules are enabled in
  [[/manager/system/workload_management|Admission Rules UI]]
```

[capability::apps_restore]

```
* Lets a user restore configurations from a backup archive through
  the apps/restore endpoint.
```

[capability::edit_global_banner]

```
* Lets a user enable/edit a global banner visible to all users on every page.
```

[capability::edit_kvstore]

```
* Lets a user execute KV Store administrative commands through the KV Store REST endpoints.

############################################################################
# Settings used to control commands started by Splunk
############################################################################
```

[commands:user_configurable]

```
prefix = <path>
* All non-internal commands started by splunkd are prefixed with this
  string, allowing for "jailed" command execution.
* Should be only one word.  In other words, commands are supported, but
  commands and arguments are not.
* Applies to commands such as: search scripts, scripted inputs, SSL
  certificate generation scripts.  (Any commands that are
  user-configurable).
* Does not apply to trusted/non-configurable command executions, such as:
  splunk search, splunk-optimize, gunzip.
* $SPLUNK_HOME is expanded.
* No default.
```

authorize.conf.example

```
#   Version 8.2.0
#
# This is an example authorize.conf.  Use this file to configure roles and
# capabilities.
#
# To use one or more of these configurations, copy the configuration block
# into authorize.conf in $SPLUNK_HOME/etc/system/local/.  You must reload
# auth or restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[role_ninja]
rtsearch = enabled
importRoles = user
srchFilter = host=foo
srchIndexesAllowed = *
srchIndexesDefault = mail;main
srchJobsQuota   = 8
rtSrchJobsQuota = 8
srchDiskQuota   = 500
srchTimeWin = 86400
srchTimeEarliest = 2592000
```

```
# This creates the role 'ninja', which inherits capabilities from the 'user'
# role.  ninja has almost the same capabilities as power, except cannot
# schedule searches.
#
# The search filter limits ninja to searching on host=foo.
#
# ninja is allowed to search all public indexes (those that do not start
# with underscore), and will search the indexes mail and main if no index is
# specified in the search.
#
# ninja is allowed to run 8 search jobs and 8 real time search jobs
# concurrently (these counts are independent).
#
# ninja is allowed to take up 500 megabytes total on disk for all their jobs.
#
# ninja is allowed to run searches that span a maximum of one day
#
# ninja is allowed to run searches on data that is newer than 30 days ago
```

bookmarks.conf

以下为 bookmarks.conf 的规范和示例文件。

bookmarks.conf.spec

```
#   Version 8.2.0
#
# This file contains possible settings and values for configuring various
# "bookmark" entries to be stored within a Splunk instance.
#
# To add custom bookmarks, place a bookmarks.conf file in
# $SPLUNK_HOME/etc/system/local/ on the Splunk instance.
# configuration content is deployed to a
# given deployment client in serverclass.conf.  Refer to
#
# To learn more about configuration files (including precedence), see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[bookmarks_mc:]*

```
url = <string>
* A bookmark URL that redirects logged-in administrators to other Monitoring
  Console instances that may be within their purview. Set this up if you have
  administrators who are responsible for the performance and uptime of multiple
  Splunk deployments.
* The bookmark appears in the left pane of the Monitoring Console.
* The URL must begin with http:// or https:// and contain 'splunk_monitoring_console'.
* Default: not set
```

bookmarks.conf.example

```
#   Version 8.2.0


# Example: Monitoring console
# User is administrator of 3 Splunk deployments: US security, Global Security,
# and US Applications, and wants convenient access to the monitoring console
# for each.

[bookmarks_mc:US Security]
```

```
url = https://us-security.testcorp.example:8000/en-US/app/splunk_monitoring_console/monitoringconsole_overview

[bookmarks_mc:Global Security]
url = https://global-security.testcorp.example:8000/en-US/app/splunk_monitoring_console/monitoringconsole_overview

[bookmarks_mc:US Applications]
url = http://us-applications.testcorp.example:8000/en-US/app/splunk_monitoring_console/monitoringconsole_overview
```

checklist.conf

以下为 `checklist.conf` 的规范和示例文件。

checklist.conf.spec

```
#   Version 8.2.0
#
# This file contains the set of attributes and values you can use to
# configure checklist.conf to run health checks in Monitoring Console.
# Any health checks you add manually should be stored in your app's local directory.
#
```

[<uniq-check-item-name>]

```
* A unique string for the name of this health check.

title = <ASCII string>
* (required) Displayed title for this health check.

category = <ASCII string>
* (required) Category for overarching goups of health check items.

tags = <ASCII string>
* (optional) Comma separated list of tags that apply to this health check.
* If omitted user will not be able to run this health check as part of a subset of health checks.

description = <ASCII string>
* (optional) A description of what this health check is checking.
* If omitted no description will be displayed.

failure_text = <ASCII string>
* If this health check did not pass, the text that you specify in this setting can
  explain what went wrong.
* While this setting is optional, if you do not specify a value for this
  setting, this health check does not display any text that helps
  identify why it did not pass.

suggested_action = <ASCII string>
* (optional) Suggested actions for diagnosing and fixing your Splunk installation
  so this health check is no longer failing.
* If omitted no suggested actions for fixing this health check will be displayed.

doc_link = <ASCII string>
* (optional) Location string for help documentation for this health check.
* If omitted no help link will be displayed to help the user fix this health check.
* Can be a comma separated list if more than one documentation link is needed.

doc_title = <ASCII string>
* (optional) Title string for help documentation link for this health check.
* Must be included if doc_link exists.
* Will be inserted in the text for the help documentation link like so: "Learn more about $doc_title$"
* If doc_link is a comma separated list,
*   then doc_title must also be a comma separated list with one title per item corresponding to doc_link.
```

```
applicable_to_groups = <ASCII string>
* (optional) Comma separated list of applicable groups that this check should be run against.
* If omitted this check item can be applied to all groups.

environments_to_exclude = <ASCII string>
* (optional) Comma separated list of environments that the health check should not run in.
*   Possible environments are 'standalone' and 'distributed'
* If omitted this check can be applied to all groups.

disabled = <boolean>
* Disable this check item by setting to 1.
* Default: 0

search = <ASCII string>
* (required) Search string to be run to perform the health check.
* Please separate lines by "\" if the search string has multiple lines.
*
* In single-instance mode, this search will be used to generate the final result.
* In multi-instance mode, this search will generate one row per instance in the result table.
*
* THE SEARCH RESULT NEEDS TO BE IN THE FOLLOWING FORMAT:
* |---------------------------------------------------------------
* |     instance    |            metric         | severity_level |
* |---------------------------------------------------------------
* | <instance name> | <metric number or string> | <level number> |
* |---------------------------------------------------------------
* |       ...       |              ...          |      ...       |
* |---------------------------------------------------------------
*
* <instance name> (required, unique) is either the "host" field of events or the
  "splunk_server" field of "| rest" search.
*   In order to generate this field, please do things like:
*     ... | rename host as instance
*   or
*     ... | rename splunk_server as instance
*
* <metric number or string> (optional) one ore more columns to "show your work"
*   This should be the data that severity_level is determined from.
*   The user should be able to look at this field to get some idea of what made the instance fail this check.
*
* <level number> (required) could be one of the following:
*   - -1 (N/A)                means: "Not Applicable"
*   - 0        (ok)                 means: "all good"
*         - 1 (info)                means: "just ignore it if you don't understand"
*         - 2 (warning)        means: "well, you'd better take a look"
*         - 3 (error)                means: "FIRE!"
*
* Please also note that the search string must contain either of the following
  token to properly scope to either a single instance or a group of instances,
  depending on the settings of checklistsettings.conf.
*         $rest_scope$                 - used for "|rest" search
*         $hist_scope$                 - used for historical search

drilldown = <ASCII string>
* (optional) Link to a search or Monitoring Console dashboard for additional information.
* Please note that the drilldown string must contain a $ delimited string.
  * This string must match one of the fields output by the search.
  * Most dashboards will need the name of the instance, eg $instance$
```

checklist.conf.example

No example

collections.conf

以下为 collections.conf 的规范和示例文件。

collections.conf.spec

```
#   Version 8.2.0
#
# This file configures the KV Store collections for a given app in Splunk.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[<collection-name>]

```
enforceTypes = <boolean>
* Indicates whether to enforce data types when inserting data into the
  collection.
* When set to true, invalid insert operations fail.
* When set to false, invalid insert operations drop only the invalid field.
* Default: false

field.<name> = number|bool|string|time
* Field type for a field called <name>.
* If the data type is not provided, the data type is inferred from the provided JSON
  data type.

accelerated_fields.<name> = <json>
* Acceleration definition for an acceleration called <name>.
* Must be a valid JSON document. Invalid JSON is ignored.
* Example: 'acceleration.foo={"a":1, "b":-1}' is a compound acceleration
  that first sorts 'a' in ascending order and then 'b' in descending order.
* There are restrictions in compound acceleration. A compound acceleration
  must not have more than one field in an array. If it does, KV Store does
  not start or work correctly.
* If multiple accelerations with the same definition are in the same
  collection, the duplicates are skipped.
* If the data within a field is too large for acceleration, you see a
  warning when you try to create an accelerated field and the acceleration
  is not created.
* An acceleration is always created on the _key.
* The order of accelerations is important. For example, an acceleration of
  { "a":1, "b":1 } speeds queries on "a" and "a" + "b", but not on "b"
  alone.
* Multiple separate accelerations also speed up queries. For example,
  separate accelerations { "a": 1 } and { "b": 1 } speed up queries on
  "a" + "b", but not as well as a combined acceleration { "a":1, "b":1 }.
* Default: nothing (no acceleration)

profilingEnabled = <boolean>
* Indicates whether to enable logging of slow-running operations, as defined
  in 'profilingThresholdMs'.
* Default: false

profilingThresholdMs = <zero or positive integer>
* The threshold for logging a slow-running operation, in milliseconds.
* When set to 0, all operations are logged.
* This setting is used only when 'profilingEnabled' is "true".
* This setting affects the performance of the collection.
* Default: 1000

replicate = <boolean>
* Indicates whether to replicate this collection on indexers. When false,
  this collection is not replicated on indexers, and lookups that depend on
  this collection are not available (although if you run a lookup command
  with 'local=true', local lookups are available). When true,
  this collection is replicated on indexers.
* Default: false
```

```
replication_dump_strategy = one_file|auto
* Indicates how to store dump files. When set to one_file, dump files are
  stored in a single file. When set to auto, dump files are stored in
  multiple files when the size of the collection exceeds the value of
  'replication_dump_maximum_file_size'.
* Default: auto

replication_dump_maximum_file_size = <unsigned integer>
* Specifies the maximum file size (in KB) for each dump file when
  'replication_dump_strategy=auto'.
* If this value is larger than the value of 'concerningReplicatedFileSize'
  in distsearch.conf, the value of 'concerningReplicatedFileSize' is
  used instead.
* KV Store does not pre-calculate the size of the records to be written
  to disk, so the size of the resulting files can be affected by the
  'max_rows_in_memory_per_dump' setting from limits.conf.
* Default: 10240

type = internal_cache|undefined
* For internal use only.
* Indicates the type of data that this collection holds.
* When set to internal_cache, changing the configuration of the current
  instance between search head cluster, search head pool, or standalone
  erases the data in the collection.
* Default: undefined
```

collections.conf.example

```
#   Version 8.2.0
#
# The following is an example collections.conf configuration.
#
# To use one or more of these configurations, copy the configuration block
# into collections.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
# Note this example uses a compound acceleration. Please check collections.conf.spec
# for restrictions on compound acceleration.

[mycollection]

field.foo = number
field.bar = string
accelerated_fields.myacceleration = {"foo": 1, "bar": -1}
```

commands.conf

以下为 commands.conf 的规范和示例文件。

commands.conf.spec

```
#   Version 8.2.0
```

概述

```
# This file contains descriptions for the setting/value pairs that you can
# use for creating search commands for custom search scripts.
```

```
#
# You can add your custom search script to one of these paths:
# * If you add your custom search script to the $SPLUNK_HOME/etc/searchscripts/
#   path, put a custom commands.conf file in the $SPLUNK_HOME/etc/system/local/
#   directory.
# * If you add your custom search script to the $SPLUNK_HOME/etc/apps/MY_APP/bin/
#   path, put a custom commands.conf file in the $SPLUNK_HOME/etc/apps/MY_APP]
#   directory.
#
# There is a commands.conf in $SPLUNK_HOME/etc/system/default/.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name commands.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see commands.conf.example.  You must restart the Splunk platform
# to enable configurations.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file wins.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

[<STANZA_NAME>]

```
* Each stanza represents a search command. The command name is the stanza name.
* The stanza name invokes the command in the search language.
* Specify the following settings/values for the command.  Otherwise, the
  default values are used.
* If the 'filename' setting is not specified, an external program is searched for
  by appending extensions (e.g. ".py", ".pl") to the stanza name.
* If the `chunked` setting is set to "true", in addition to the extensions ".py"
  and ".pl" as above, the extensions ".exe", ".bat", ".cmd", ".sh", ".js", as
  well as no extension (to find binaries without extensions), are searched for.
* See the 'filename' setting for more information about how external programs
  are searched for.

type = <string>
* The type of script. Valid values are python and perl.
* Default: python

python.version = {default|python|python2|python3}
* For Python scripts only, specifies which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.

filename = <string>
* Optionally specify the program to run when the custom search command is used.
* The 'filename' is looked for in the `bin` directory for the app.
* The 'filename' setting cannot reference any file outside of the `bin` directory
  for the app.
* If the 'filename' ends in ".py", the python interpreter is used
  to invoke the external script.
* If the 'chunked' setting is set to "true", the 'filename' is looked for first in the
  $SPLUNK_HOME/etc/apps/MY_APP/<PLATFORM>/bin directory before searching the
  $SPLUNK_HOME/etc/apps/MY_APP/bin directory. The <PLATFORM> is one of the following:
  "linux_x86_64"
  "linux_x86"
  "windows_x86_64"
  "windows_x86"
  "darwin_x86_64"
  Depending on the platform that the Splunk software is running on.
* If the 'chunked' setting is set to "true" and if a path pointer file (*.path)
  is specified, the contents of the path pointer file are read and the result is
  used as the command to run. Environment variables in the path pointer
  file are substituted. You can use path pointer files to reference
  system binaries. For example: /usr/bin/python.

command.arg.<N> = <string>
* Additional command-line arguments to use when invoking this
  program. Environment variables, such as $SPLUNK_HOME, are substituted.
* Only available if the `chunked` setting is "true".

local = <boolean>
* If set to "true", specifies that the command should be run on the search head only.
* Default: false

perf_warn_limit = <integer>
* Issue a performance warning message if more than the value specified for input events are
  passed to this external command (0 = never)
* Default: 0 (disabled)

streaming = <boolean>
* Whether or not the command is streamable.
* Default: false

maxinputs = <integer>
* The maximum number of events that can be passed to the command for each
  invocation.
* This limit cannot exceed the value of the 'maxresultrows' setting in limits.conf file.
* Specify 0 for no limit.
* Default: 50000

passauth = <boolean>
* Whether or not the Splunk platform passes authentication-related facts
  at the start of input, as part of the header.
* See the 'enableheader' setting for additional information on headers.
* If set to "true", splunkd passes several authentication-related facts
  at the start of input, as part of the header.
* The Splunk platform passes the following headers:
  * authString: A pseudo-xml string that resembles
      <auth><userId>username</userId><username>username</username><authToken>auth_token< /authToken></auth>
    where the username is passed twice, and the authToken can be used
    to contact splunkd during the script run.
  * sessionKey: the session key again
  * owner: the user portion of the search context
  * namespace: the app portion of the search context
* Requires "enableheader = true". If "enableheader = false", the Splunk platform
  also treats this setting as "false".
* If "chunked = true", the Splunk platform ignores this setting. It always passes
  an authentication token to commands using the chunked custom search
  command protocol.
* Default: false

run_in_preview = <boolean>
* Whether or not to run this command if generating results just for preview
  rather than for final output.
* Default: true
```

```
enableheader = <boolean>
* Whether or not your script expects header information.
* If set to "true" it will expect as input a head section + '\n' then the CSV input.
* NOTE: Should be set to "true" if you use splunk.Intersplunk
* Default: true

retainsevents = <boolean>
* Whether or not the command retains events, the way that the sort/dedup/cluster
  commands do, or whether the command transforms events, the way that the stats
  command does.
* Default: false

generating = <boolean>
* Whether or not your command generates new events. If no events are passed to
  the command, will it generate events?
* Default: false

generates_timeorder = <boolean>
* If "generating = true", does the command generate events in descending time order,
  with the latest event first.
* Default: false

overrides_timeorder = <boolean>
* If "generating = false" and "streaming = true", does the command change the order of
  events with respect to time?
* Default: false

requires_preop = <boolean>
* Whether or not the command sequence specified by the 'streaming_preop' setting
  is required for proper execution or is it an optimization only.
* Default: false (streaming_preop not required)

streaming_preop = <string>
* A string that denotes the requested pre-streaming search string.

required_fields = <string>
* A comma-separated list of fields that this command can use.
* Informs previous commands that they should retain/extract these fields if
  possible.  No error is generated if a field specified is missing.
  The default is all fields.
* Default: '*'

supports_multivalues = <boolean>
* Whether or not the command supports multiple values.
* If set to "true", multivalues are treated as python lists of strings, instead of a
  flat string (when using Intersplunk to interpret stdin/stdout).
* If the list only contains one element, the value of that element is
  returned, rather than a list. For example:
    isinstance(val, basestring) == True

supports_getinfo = <boolean>
* Whether or not the command supports dynamic probing for settings
  (first argument invoked == __GETINFO__ or __EXECUTE__).

supports_rawargs = <boolean>
* If set to "true", specifies that the command supports raw arguments being passed to it.
* If set to "false", specifies that the command prefers parsed arguments,
  where quotes are stripped.
* Default: false

undo_scheduler_escaping = <boolean>
* Whether or not or not the raw arguments of a command should have any
  previously-applied escaping removed.
* This setting applies in particular to commands that the scheduler invokes,
  and only if the commands support raw arguments, where the 'supports_rawargs'
  setting for the command is "true".
* Default: false
```

```
requires_srinfo = <boolean>
* Specifies if the command requires information stored in SearchResultsInfo.
* If set to "true", requires that 'enableheader' is set to "true", and the full
  pathname of the info file (a csv file) will be emitted in the header under
  the key 'infoPath'.
* Default: false

needs_empty_results = <boolean>
* Whether or not this custom search command needs to be called with
  intermediate empty search results.
* Default: true

changes_colorder = <boolean>
* Whether or not the script output should be used to change the column
  ordering of the fields.
* Default: true

outputheader = <boolean>
* If set to "true", output of script should be a header section + blank
  line + csv output.
* If set to "false", the script output should be pure comma separated values only.
* Default: false

clear_required_fields = <boolean>
* If set to "true", 'required_fields' represents the *only* fields required.
* If set to "false", 'required_fields' are additive to any fields that might be
  required by subsequent commands.
* In most cases, "false" is appropriate for streaming commands and "true" for
  transforming commands.
* Default: false

stderr_dest = [log|message|none]
*  Specifies what do to with the stderr output from the script.
* 'log' means to write the output to the job search.log file.
* 'message' means to write each line as a search info message. The message
  level can be set to adding that level (in ALL CAPS) to the start of the
  line.For example, "WARN my warning message."
* 'none' means to discard the stderr output.
* Default: log

is_order_sensitive = <boolean>
* Set to "true" if the command requires the input to be in order.
* Default: false

is_risky = <boolean>
* Searches using Splunk Web are flagged to warn users when they
  unknowingly run a search that contains commands that might be a
  security risk. This warning appears when users click a link or type
  a URL that loads a search that contains risky commands. This warning
  does not appear when users create ad hoc searches.
* This flag is used to determine whether the command is risky.
* NOTE: Specific commands that ship with the product have their own
  default setting for 'is_risky'.
* Default: false

chunked = <boolean>
* Whether or not the search command supports the new "chunked" custom search
  command protocol.
* If set to "true", this command supports the new "chunked" custom
  search command protocol, and only the following commands.conf settings are valid:
  * 'is_risky'
  * 'maxwait'
  * 'maxchunksize'
  * 'filename'
  * 'command.arg.<N>'
  * 'python.version', and
  * 'run_in_preview'.
* If set to "false", this command uses the legacy custom search command
  protocol supported by Intersplunk.py.
```

```
* Default: false

pass_timezone = <boolean>
* Specify whether or not splunkd passes the serialized timezone information
  of the user to the script as part of the header. The serialized timezone
  information can be used to convert time to match the user's timezone.
* If set to "true", when an alert action generates a PDF file, the user's
  timezone is used when rendering the charts in the PDF.
* Valid only when 'enableheader' is set to "true". If 'enableheader' is set to "false",
  'pass_timezone' is set "false" as well.
* Default: false

maxwait = <integer>
* The maximum amount of time, in seconds, that the custom search command can
  pause before producing output.
* Only available if "chunked = true".
* Not supported on Windows.
* If set to "0", the command can pause forever.
* Default: 0

maxchunksize = <integer>
* The maximum chunk size, including the size of metadata plus the size of body,
  that the external command can produce. If the command
  tries to produce a larger chunk, the command is terminated.
* Only available if "chunked = true".
* If set to "0", the command can send any size chunk.
* Default: 0
```

commands.conf.example

```
#   Version 8.2.0
#
# This is an example commands.conf.  Use this file to configure settings
# for external search commands.
#
# To use one or more of these configurations, copy the configuration block
# into commands.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence)
# see the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# Note: These are examples.  Replace the values with your own
# customizations.


##############
# defaults for all external commands, exceptions are below in
# individual stanzas

# type of script: 'python', 'perl'
TYPE = python
# default "filename" would be <stanza-name>.py for python,
# <stanza-name>.pl for perl, and
# <stanza-name> otherwise

# is command streamable?
streaming = false

# maximum data that can be passed to command (0 = no limit)
maxinputs = 50000

# end defaults
#####################
```

```
[createrss]
filename = createrss.py

[diff]
filename = diff.py

[runshellscript]
filename = runshellscript.py

[sendemail]
filename = sendemail.py

[uniq]
filename = uniq.py

[windbag]
filename = windbag.py
supports_multivalues = true

[xmlkv]
filename = xmlkv.py

[xmlunescape]
filename = xmlunescape.py
```

datamodels.conf

以下为 datamodels.conf 的规范和示例文件。

datamodels.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attribute/value pairs for configuring
# data models.  To configure a datamodel for an app, put your custom
# datamodels.conf in $SPLUNK_HOME/etc/apps/MY_APP/local/

# For examples, see datamodels.conf.example.  You must restart Splunk to
# enable configurations.

# To learn more about configuration files (including precedence) see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top
#     of the file.
#   * Each conf file should have, at most, one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level, and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

[<datamodel_name>]

```
* Each stanza represents a data model. The data model name is the stanza name.

acceleration = <boolean>
```

```
* Whether or not the Splunk platform automatically accelerates this data model.
* Automatic acceleration creates auxiliary column stores for the fields
  and values in the events for this data model on a per-bucket basis.
* These column stores take additional space on disk, so be sure you have the
  proper amount of disk space. Additional space required depends on the
  number of events, fields, and distinct field values in the data.
* Set to 'true' to enable automatic acceleration of this data model.
* The Splunk platform creates and maintains these column stores on a schedule
  you can specify with 'acceleration.cron_schedule'. You can search them with
  the 'tstats' command.
* Default: false

acceleration.store = [splunk|external]
* Specifies what kind of data model acceleration summary a data model uses,
  when 'acceleration=true'.
* Valid values are 'splunk' and 'external'.
* When set to 'splunk' the data model summary is stored in the standard tsidx
  file format.
* When set to 'external' the data model summary is stored in a non-tsidx format
  on the external S3 system. External data model summaries generally provide
  faster search results than their standard counterparts.
* Default: splunk

acceleration.external.max_interval_per_summarization_run = <unsigned integer>
* Applies only to data models with 'acceleration.store=external'.
* Sets the maximum time span, in seconds, for the scheduled search jobs that
  populate the external data model summary with summary data.
* NOTE: Summarization searches for 'external' data model summaries work
  differently than summarization searches for 'splunk' data model summaries.
  They start at the 'indextime_et' boundary of the span, covering the earliest
  indexed data first and moving towards the latest indexed data. They utilize
  cursor incrementation to ensure that there are no summarized data gaps.
  The 'splunk' data model summarization searches cover indexed data from
  latest to earliest.
* When 'max_interval_per_summarization_run=0', this setting has no maximum
  limit. This means that the summarization search always attempts to populate
  the entire summary in one run, unless 'max_time' is reached, at which point
  the search is abandoned and the summary data collected by the run is not
  applied to the summary. Do not set 'max_interval_per_summarization_run=0'
  unless the time range covered by the summary is narrow.
* Default: 3600

acceleration.earliest_time = <relative time string>
* Specifies how far back in time the Splunk platform keeps the column stores
  for an accelerated data model.
  * Also specifies when the Splunk platform should create the column stores,
    when you do not have a setting for acceleration.backfill_time.
* Specified by a relative time string. For example, "-7d" means "accelerate
  data within the last 7 days".
* Default: empty string.
  * An empty string for this setting means "keep these stores for all time".

acceleration.backfill_time = <relative time string>
* Specifies how far back in time the Splunk platform creates its
  column stores.
* This is an advanced setting.
* Only set this parameter if you want to backfill less data than the
  retention period set by 'acceleration.earliest_time'. You might want to use
  this parameter to limit your time window for column store creation in a large
  environment where initial creation of a large set of column stores is an
  expensive operation.
* CAUTION: Do not set 'acceleration.backfill_time' to a narrow time window. If
  one of your indexers is down for a period longer than this backfill time, you
  may miss accelerating a window of your incoming data.
* This setting MUST be set to a time that is more recent than
  'acceleration.earliest_time'. For example, if you set
  'acceleration.earliest_time' to "-1y" to retain your column stores for a one
  year window, you can set 'acceleration.backfill_time' to "-20d" to create
  column stores that cover only the last 20 days. However, you should not set
  'acceleration.backfill_time' to "-2y", because that setting goes farther back
  in time than the 'acceleration.earliest_time' setting of "-1y".
* Default: empty string.
  * When 'acceleration.backfill_time' is unset, the Splunk platform backfills
    fully to 'acceleration.earliest_time'.

acceleration.max_time = <unsigned integer>
* The maximum amount of time, in seconds, that the column store creation search
  can run.
* NOTE: This is an approximate time.
* An 'acceleration.max_time' setting of "0" indicates that there is no time
  limit.
* Default: 3600

acceleration.poll_buckets_until_maxtime = <boolean>
* In a distributed environment consisting of machines with varying amounts of
  free storage capacity and processing speed, summarizations might complete
  sooner on machines with less data and faster resources. After the
  summarization search is finished with all of the buckets, it is complete. The
  overall search runtime is determined by the slowest machine in the
  environment.
* When this setting is set to "true", all of the machines run for "max_time"
  (approximately). The Splunk platform repeatedly polls the buckets for new
  data to summarize.
* Set 'poll_buckets_until_maxtime' to "true" if your data model is sensitive to
  summarization latency delays.
* When 'poll_buckets_until_maxtime' is set to "true", the Splunk platform
  counts the summarization search against the number of concurrent searches you
  can run until "max_time" is reached.
* Default: false

acceleration.cron_schedule = <cron-string>
* This setting provides the cron schedule that the Splunk platform follows when
  it probes or generates the column stores of this data model.
* Default: */5 * * * *

acceleration.manual_rebuilds = <boolean>
* Whether or not the Splunk platform is prohibited from automatically rebuilding
  outdated summaries using the 'summarize' command.
* This is an advanced setting.
* Normally, during the creation phase, the 'summarize' command automatically
  rebuilds summaries that are considered to be out-of-date, such as when the
  configuration backing the data model changes.
* The Splunk platform considers a summary to be outdated when either of these
  conditions are present:
  * The data model search stored in its metadata no longer matches its current
        data model search.
  * The data model search stored in its metadata cannot be parsed.
* When set to "true", the Splunk platform does not rebuild outdated summaries
  using the 'summarize' command.
* NOTE: If the Splunk platform finds a partial summary to be outdated, it always
  rebuilds that summary so that a bucket summary only has results corresponding
  to one data model search.
* Default: false

acceleration.max_concurrent = <unsigned integer>
* The maximum number of concurrent acceleration instances for this data
  model that the scheduler is allowed to run.
* Default: 3

acceleration.allow_skew = <percentage>|<duration-specifier>
* Allows the search scheduler to randomly distribute scheduled searches more
  evenly over their periods.
* When set to non-zero for searches with the following cron_schedule values,
  the search scheduler randomly "skews" the second, minute, and hour that the
  search actually runs on:
    * * * * *     Every minute.
    */M * * * *   Every M minutes (M > 0).
    0 * * * *     Every hour.
    0 */H * * *   Every H hours (H > 0).
    0 0 * * *     Every day (at midnight).
* When set to non-zero for a search that has any other cron_schedule setting,
  the search scheduler can only randomly "skew" the second that the search runs
  on.
* The amount of skew for a specific search remains constant between edits of
  the search.
* An integer value followed by '%' (percent) specifies the maximum amount of
  time to skew as a percentage of the scheduled search period.
* Otherwise, use <integer><unit> to specify a maximum duration. Relevant units
  are: m, min, minute, mins, minutes, h, hr, hour, hrs, hours, d, day, days.
  The <unit> may be omitted only when the <integer> is 0.
* Examples:
    100% (for an every-5-minute search) = 5 minutes maximum
    50% (for an every-minute search) = 30 seconds maximum
    5m = 5 minutes maximum
    1h = 1 hour maximum
* A value of 0 disallows skew.
* Default: 0

acceleration.schedule_priority = default | higher | highest
* Raises the scheduling priority of a search:
  * "default": No scheduling priority increase.
  * "higher": Scheduling priority is higher than other data model searches.
  * "highest": Scheduling priority is higher than other searches regardless of
    scheduling tier except real-time-scheduled searches with priority = highest
    always have priority over all other searches.
  * Hence, the high-to-low order (where RTSS = real-time-scheduled search, CSS
    = continuous-scheduled search, DMAS = data-model-accelerated search, d =
    default, h = higher, H = highest) is:
      RTSS(H) > DMAS(H) > CSS(H)
      > RTSS(h) > RTSS(d) > CSS(h) > CSS(d)
      > DMAS(h) > DMAS(d)
* The scheduler honors a non-default priority only when the search owner has
  the 'edit_search_schedule_priority' capability.
* CAUTION: Having too many searches with a non-default priority impedes the
  ability of the scheduler to minimize search starvation. Use this setting
  only for mission-critical searches.
* Default: default

acceleration.allow_old_summaries = <boolean>
* Sets the default value of 'allow_old_summaries' for this data model.
* Only applies to accelerated data models.
* When you use commands like 'datamodel', 'from', or 'tstats' to run a search
  on this data model, allow_old_summaries=false causes the Splunk platform to
  verify that the data model search in each bucket's summary metadata matches
  the scheduled search that currently populates the data model summary.
  Summaries that fail this check are considered "out of date" and are not used
  to deliver results for your events search.
* This setting helps with situations where the definition of an accelerated
  data model has changed, but the Splunk platform has not yet updated its
  summaries to reflect this change. When allow_old_summaries=false for a data
  model, an event search of that data model returns results only from bucket
  summaries that match the current definition of the data model.
* If you set allow_old_summaries=true, your search can deliver results from
  bucket summaries that are out of date with the current data model definition.
* Default: false

acceleration.source_guid = <string>
* Use this setting to enable this data model to use a summary on a remote
  search head (SH) or search head cluster (SHC). You can save space and cut
  back on the work of building and maintaining summaries by accelerating the
  same data model once across multiple SC and SHC instances.
* This setting specifies the GUID (globally unique identifier) of another SH or
  SHC.
  * If you are running a single instance you can find the GUID in
    etc/instance.cfg.
  * You can find the GUID for a SHC in the [shclustering] stanza in server.conf.
* Set this for your data model only if you understand what you are doing!
* After you set this setting:
  * Searches of this data model draw upon the summaries related to the provided
    GUID when possible. You cannot edit this data model in Splunk Web while a
    source GUID is specified for it.
  * The Splunk platform ignores 'acceleration.enabled' and similar acceleration
    settings for your data model.
  * Summaries for this data model cease to be created on the indexers of the
    local deployment even if the model is accelerated.
* All of the data models that use a particular summary should have definitions
  and acceleration time ranges that are very similar to each other, if not
  identical.
  * When you set this setting for this data model, its 'allow_old_summaries'
    setting defaults to 'true'. This happens because there may be a slight
    difference between the definitions of this data model and the data model at
    the remote SC or SHC, whose summary it will be using.
  * If the data model at the remote SC or SHC is changed, this data model could
    end up using mismatched data.
* Default: not set

acceleration.hunk.compression_codec = <string>
* The compression codec to be used for the accelerated orc/parquet files.
* Applicable only to Hunk data models.

acceleration.hunk.dfs_block_size = <unsigned integer>
* The block size, in bytes, for the compression files.
* Applicable only to Hunk data models.

acceleration.hunk.file_format = [orc|parquet]
* Applicable only to Hunk data models.

acceleration.workload_pool = <string>
* Sets the workload pool to be used by this search.
* There are multiple workload pools defined in workload_pools.conf.
  Each workload pool has resource limits associated with it. For example,
  CPU, Memory, etc.
* The specific workload_pool to use is defined in workload_pools.conf.
* The search process for this search runs in the specified workload_pool.
* If workload management is enabled and you have not specified a workload_pool,
  the Splunk platform puts the search into a proper pool as specified by the
  workload rules defined in workload_rules.conf. If you have not defined a rule
  for this search, the Splunk platform uses the default_pool defined in
  workload_pools.conf.
* Optional.


#******** Dataset-Related Attributes ******
# These attributes affect your interactions with datasets in Splunk Web and
# should not be changed under normal conditions. Do not modify them unless you
# are sure you know what you are doing.

dataset.description = <string>
* User-entered description of the dataset entity.

dataset.type = [datamodel|table]
* The type of dataset:
  * "datamodel": An individual data model dataset.
  * "table": A special root data model dataset with a search where the dataset
    is defined by the dataset.commands attribute.
* Default: datamodel

dataset.commands = [<object>(, <object>)*]
* When the dataset.type = "table" this stringified JSON payload is created by
  the table editor and defines the dataset.

dataset.fields = [<string>(, <string>)*]
* Automatically generated JSON payload when dataset.type = "table" and the
  search for the root data model dataset has been updated.

dataset.display.diversity = [latest|random|diverse|rare]
```

```
* The user-selected diversity for previewing events contained by the dataset:
  * "latest": search a subset of the latest events
  * "random": search a random sampling of events
  * "diverse": search a diverse sampling of events
  * "rare": search a rare sampling of events based on clustering
* Default: latest

dataset.display.sample_ratio = <integer>
* The integer value used to calculate the sample ratio for the dataset
  diversity. The formula is 1 / <integer>.
* The sample ratio specifies the likelihood of any event being included in the
  sample.
* For example, if sample_ratio = 500, each event has a 1/500 chance of being
  included in the sample result set.
* Default: 1

dataset.display.limiting = <integer>
* The limit of events to search over when previewing the dataset.
* Default: 100000

dataset.display.currentCommand = <integer>
* The currently selected command the user is on while editing the dataset.

dataset.display.mode = [table|datasummary]
* The type of preview to use when editing the dataset:
  * "table": show individual events/results as rows.
  * "datasummary": show field values as columns.
* Default: table

dataset.display.datasummary.earliestTime = <time-string>
* The earliest time used for the search that powers the datasummary view of
  the dataset.

dataset.display.datasummary.latestTime = <time-string>
* The latest time used for the search that powers the datasummary view of
  the dataset.

strict_fields = <boolean>
* The default value for the 'strict_fields' argument when you use
  '| datamodel' in a search.
  * When you set 'strict_fields' to 'true', the search returns only the fields
    specified in the constraints for the data model.
  * When you set 'strict_fields' to 'false', the search returns all fields,
    including fields inherited from parent datasets and fields derived through
    search-time processes such as field extraction, eval-based field
    calculation, and lookup matching.
* You can override this setting by specifying the 'strict_fields' argument for
  a '| datamodel' search.
* This setting also applies to the 'from' command. When you use '| from' to
  search a data model that has 'strict_fields=true', the search returns only
  those fields that are defined in the constraints for the data model.
* Default: true

tags_whitelist = <comma-separated list>
* A comma-separated list of tag fields that the data model requires
  for its search result sets.
* This is a search performance setting. Apply it only to data models that use a
  significant number of tag field attributes in their definitions. Data models
  without tag fields cannot use this setting. This setting does not recognize
  tags used in constraint searches.
* Only the tag fields identified in this allow list (and the event types tagged
  by them) are loaded when you perform searches with this data model.
* When you update this setting for an accelerated data model, the Splunk
  software rebuilds the data model unless you have enabled
  accleration.manual_rebuild for it.
* If this setting is not set, the Splunk platform attempts to optimize out
  unnecessary tag fields when you perform searches with this data model.
* Default: empty (not set)
```

datamodels.conf.example

```
#   Version 8.2.0
#
# Configuration for example datamodels
#

# An example of accelerating data for the 'mymodel' datamodel for the
# past five days, generating and checking the column stores every 10 minutes
[mymodel]
acceleration = true
acceleration.earliest_time = -5d
acceleration.poll_buckets_until_maxtime = true
acceleration.cron_schedule = */10 * * * *
acceleration.hunk.compression_codec = snappy
acceleration.hunk.dfs_block_size = 134217728
acceleration.hunk.file_format = orc
```

datatypesbnf.conf

以下为 datatypesbnf.conf 的规范和示例文件。

datatypesbnf.conf.spec

```
#   Version 8.2.0
#
# This file effects how the search assistant (typeahead) shows the syntax for
# search commands.
```

[<syntax-type>]

```
* The name of the syntax type you are configuring.
* Follow this field name with one syntax= definition.
* Syntax type can only contain a-z, and -, but cannot begin with -

syntax = <string>
* The syntax for your syntax type.
* Should correspond to a regular expression describing the term.
* Can also be a <field> or other similar value.
```

datatypesbnf.conf.example

```
No example
```

default.meta.conf

以下为 default.meta.conf 的规范和示例文件。

default.meta.conf.spec

```
#   Version 8.2.0
#
#
# *.meta files contain ownership information, access controls, and export
# settings for Splunk objects like saved searches, event types, and views.
# Each app has its own default.meta file.
# Interaction of ACLs across app-level, category level, and specific object
# configuration:
* To access/use an object, users must have read access to:
  * the app containing the object
  * the generic category within the app (for example, [views])
  * the object itself
* If any layer does not permit read access, the object will not be accessible.

* To update/modify an object, such as to edit a saved search, users must have:
  * read and write access to the object
  * read access to the app, to locate the object
  * read access to the generic category within the app (for example, [savedsearches])
* If object does not permit write access to the user, the object will not be
  modifiable.
* If any layer does not permit read access to the user, the object will not be
  accessible in order to modify

* In order to add or remove objects from an app, users must have:
  * write access to the app
* If users do not have write access to the app, an attempt to add or remove an
  object will fail.

* By default, objects are only visible within the app in which they were created.
  To make an object available to all apps, set the object's 'export' setting to
  "system".
  * export = system

* Objects that are exported to other apps, or to system context, have no change
  to their accessibility rules.  Users must still have read access to the
  containing app, category, and object, despite the export.

# Set access controls on the app containing this metadata file.
[]
access = read : [ * ], write : [ admin, power ]
* Allow all users to read this app's contents. Unless overridden by other
  metadata, allow only admin and power users to share objects into this app.

# Set access controls on this app's views.
```

[views]

```
access = read : [ * ], write : [ admin ]
* Allow all users to read this app's views. Allow only admin users to create,
  remove, share, or unshare views in this app.

# Set access controls on a specific view in this app.
```

[views/index_status]

```
access = read : [ admin ], write : [ admin ]
* Allow only admin users to read or modify this view.

# Make this view available in all apps.
export = system
* To make this view available only in this app, set 'export = none' instead.
owner = admin
* Set admin as the owner of this view.
```

default.meta.conf.example

```
#   Version 8.2.0
#
# This file contains example patterns for the metadata files default.meta and
# local.meta
```

```
#

# This example would make all of the objects in an app globally accessible to
# all apps
[]
export=system
```

default-mode.conf

以下为 default-mode.conf 的规范和示例文件。

default-mode.conf.spec

```
#   Version 8.2.0
#
# This file documents the syntax of default-mode.conf for comprehension and
# troubleshooting purposes.

# default-mode.conf is a file that exists primarily for Splunk Support and
# Services to configure the Splunk platform.

# CAVEATS:

# DO NOT make changes to default-mode.conf without coordinating with Splunk
# Support or Services.  End-user changes to default-mode.conf are not
# supported.
#
# default-mode.conf *will* be removed in a future version of the Splunk platform,
# along with the entire configuration scheme that it affects. Any settings present
# in default-mode.conf files will be completely ignored at this point.
#
# Settings in default-mode.conf affect how pieces of code communicate.
# Configuration changes in default-mode.conf might fail to work,
# behave unexpectedly, or harm your deployment. Any changes must be made
# only under the guidance of Splunk Support or Services staff for
# use in a specific deployment of Splunk Enterprise.

# INFORMATION:

# The main value of this spec file is to assist in reading these files for
# troubleshooting purposes.  default-mode.conf was originally intended to
# provide a way to describe the alternate setups used by the Splunk Light
# Forwarder and Splunk Universal Forwarder.

# The only reasonable action is to re-enable input pipelines that are
# disabled by default in those forwarder configurations.  However, keep the
# prior caveats in mind.  Any future means of enabling inputs will have a
# different form when this mechanism is removed.

# SYNTAX:
```

[pipeline:<string>]

```
disabled = <boolean>
disabled_processors = <string>
```

[pipeline:<string>]

```
* Refers to a particular Splunkd pipeline.
* The set of named pipelines is a splunk-internal design. That does not
  mean that the Splunk design is a secret, but it means it is not external
  for the purposes of configuration.
* Useful information on the data processing system of splunk can be found
```

```
  in the external documentation, for example
  http://docs.splunk.com/Documentation/Splunk/latest/Deploy/Datapipeline


disabled = <boolean>
* Whether or not the Splunk platform loads the specified pipeline.
* If set to true on a specific pipeline, the pipeline will not be loaded in
  the system.

disabled_processors = <processor1>, <processor2>
* Processors which normally would be loaded in this pipeline are not loaded
  if they appear in this list.
* The set of named processors is again a Splunk-internal design component.
```

default-mode.conf.example

```
No example
```

deployment.conf

以下为 deployment.conf 的规范和示例文件。

deployment.conf.spec

```
#   Version 8.2.0
#
# *** REMOVED; NO LONGER USED ***
#
#
# This configuration file  has been replaced by:
# 1.) deploymentclient.conf - for configuring Deployment Clients.
# 2.) serverclass.conf - for Deployment Server server class configuration.
#
#
# Compatibility:
# Splunk 4.x Deployment Server is NOT compatible with Splunk 3.x Deployment Clients.
#
```

deployment.conf.example

```
No example
```

deploymentclient.conf

以下为 deploymentclient.conf 的规范和示例文件。

deploymentclient.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# customize the way a deployment client behaves.
#
# Each stanza controls different search commands settings.
```

```
#
# There is a deploymentclient.conf file in the
# $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name
# deploymentclient.conf in the $SPLUNK_HOME/etc/system/local/ directory.
# Then add the specific settings that you want to customize to the local
# configuration file. For examples, see deploymentclient.conf.example.
# You must restart the Splunk instance to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
#***************************************************************************
# Configure a Splunk deployment client
#
# Note: At minimum, the [deployment-client] stanza must be in
# deploymentclient.conf to enable a deployment client.
#***************************************************************************
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top
#     of the file.
#   * Each .conf file should have only one default stanza. If there are
#     multiple default stanzas, their settings combine. When there are
#     multiple definitions of the same setting, the last definition in the
#     file takes precedence.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

[deployment-client]

```
disabled = <boolean>
* Whether or not a deployment client is disabled.
* Default: false

clientName = deploymentClient
* A name that the deployment server can filter on.
* This setting takes precedence over DNS names.
* Default: deploymentClient

workingDir = $SPLUNK_HOME/var/run
* The temporary folder that the deploymentClient uses to download apps and
  configuration content.

repositoryLocation = $SPLUNK_HOME/etc/apps
* The location where content installs when downloaded from a deployment server.
* For the Splunk platform instance on the deployment client to recognize an app
  or configuration content, install the app or content in the default location:
  $SPLUNK_HOME/etc/apps.
    * NOTE: Apps and configuration content for deployment can be in other
      locations on the deployment server. Set both 'repositoryLocation' and
      'serverRepositoryLocationPolicy' explicitly to ensure that the content
      installs on the deployment client in the correct location, which is
      $SPLUNK_HOME/etc/apps.
    * The deployment client uses the following 'serverRepositoryLocationPolicy'
      to determine the value of 'repositoryLocation'.
```

```
serverRepositoryLocationPolicy = [acceptSplunkHome|acceptAlways|rejectAlways]
* The value of 'repositoryLocation' for the deployment client to use.
* This setting accepts only the following values:
  * "acceptSplunkHome": Only accept the value of 'repositoryLocation' the
    deployment server supplies if it begins with $SPLUNK_HOME.
  * "acceptAlways": Always accept the 'repositoryLocation' that the deployment server
    supplies.
  * "rejectAlways": Always reject the 'repositoryLocation' that the deployment server
    supplies, and instead use the 'repositoryLocation' that the local
    deploymentclient.conf file specifies.
* Default: acceptSplunkHome

endpoint=$deploymentServerUri$/services/streams/deployment?name=$serverClassName$:$appName$
* Specifies the HTTP endpoint from which to download content.
* The deployment server can specify different endpoints from which to download
  different sets of content, such as individual apps.
* The deployment client uses the following 'serverEndpointPolicy' to determine
  which value to use:
* $deploymentServerUri$ resolves to "targetUri" defined in the following
  'target-broker'stanza.
* $serverClassName$ and $appName$ name the server class and the app,
  respectively.

serverEndpointPolicy = [acceptAlways|rejectAlways]

* acceptAlways: Always accept the endpoint supplied by the server.
* rejectAlways: Reject the endpoint supplied by the server. Always use the
  preceding endpoint definition.
* Default: acceptAlways

phoneHomeIntervalInSecs = <decimal>
* How frequently, in seconds, this deployment client should
  check for new content.
* Fractional seconds are allowed.
* Default: 60.

handshakeRetryIntervalInSecs = <integer>
* The handshake retry frequency, in seconds.
* Could be used to tune the initial connection rate on a new server.
* Default: The value of 'phoneHomeIntervalInSecs' / 5

handshakeReplySubscriptionRetry = <integer>
* If the Splunk platform is unable to complete the handshake, it will retry subscribing to
  the handshake channel after this many handshake attempts.
* Default: 10

appEventsResyncIntervalInSecs = <number in seconds>
* This sets the interval at which the client reports back its app state
  to the server.
* Fractional seconds are allowed.
* Default: 10 * the value of 'phoneHomeIntervalInSecs'

reloadDSOnAppInstall = <boolean>
* Whether or not the deployment server on this instance reloads after an app
  is installed by this deployment client.
* Setting this flag to true causes the deploymentServer on this Splunk
  platform instance to be reloaded whenever an app is installed by this
  deploymentClient.
* This is an advanced configuration. Only use it when you have a hierarchical
  deployment server installation, and have a Splunk instance that behaves
  as both a deployment client and a deployment server.
* Do not use a hierarchical deployment server unless you have no other
  alternative. Splunk has seen problems in the field that have not yet
  been resolved with this kind of configuration.
* Default: false

sslVersions = <versions_list>
* Comma-separated list of SSL versions to connect to the specified
  Deployment Server
```

```
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* The special version "*" selects all supported versions.  The version "tls"
  selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list but
  does nothing.
* When configured in FIPS mode, ssl3 is always disabled regardless
  of this configuration.
* Default: The 'sslVersions' value in the server.conf file [sslConfig] stanza

sslVerifyServerCert = <boolean>
* If this is set to true, Splunk verifies that the Deployment Server
  (specified in 'targetUri')
  being connected to is a valid one (authenticated).  Both the common
  name and the alternate name of the server are then checked for a
  match if they are specified in 'sslCommonNameToCheck' and 'sslAltNameToCheck'.
  A certificate is considered verified if either is matched.
* Default: The 'sslVerifyServerCert' value in the server.conf file
  [sslConfig] stanza

caCertFile = <path>
* Specifies a full path to a Certificate Authority (ca) certificate(s) PEM
  format file.
* The <path> must refer to a PEM format file containing one or more root CA
  certificates concatenated together.
* Used for validating the SSL certificate from the deployment server
* Default: The 'caCertFile' value in the server.conf file [sslConfig] stanza

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd checks the common name(s) of the certificate presented by
  the Deployment Server (specified in 'targetUri') against this list of
  common names.
* Default: The 'sslCommonNameToCheck' value in the server.conf file
  [sslConfig] stanza.

sslAltNameToCheck =  <alternateName1>, <alternateName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd checks the alternate name(s) of the certificate presented by
  the Deployment Server (specified in 'targetUri') against this list of
  subject alternate names.
* Default: The 'sslAltNameToCheck' value in the server.conf file [sslConfig] stanza

cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for making outbound HTTPS connection.
* No default.

ecdhCurves = <comma separated list of ec curves>
* Defines Elliptic Curve-Diffie Hellman curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of Client Hello.
* Splunk software only support named curves specified by
  their SHORT names.
* The list of valid named curves by their short/long names can be obtained
  by executing this command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* For example: ecdhCurves = prime256v1,secp384r1,secp521r1
* Default: empty string

connect_timeout = <positive integer>
* The amount of time, in seconds, that a deployment client can take to connect
  to a deployment server before the server connection times out.
* Default: 60

send_timeout = <positive integer>
* The amount of time, in seconds, that a deployment client can take to send or
  write data to a deployment server before the server connection times out.
* Default: 60
```

```
recv_timeout = <positive integer>
* The amount of time, in seconds, that a deployment client can take to receive
  or read data from a deployment server before the server connection times out.
* Default: 60

# The following stanza specifies deployment server connection information
```

[target-broker:deploymentServer]

```
targetUri= <string>
* The target URI of the deployment server.
* An example of <uri>: <scheme>://<deploymentServer>:<mgmtPort>

connect_timeout = <positive integer>
* See 'connect_timeout' in the "[deployment-client]" stanza for
  information on this setting.

send_timeout = <positive integer>
* See 'send_timeout' in the "[deployment-client]" stanza for
  information on this setting.

recv_timeout = <positive integer>
* See 'recv_timeout' in the "[deployment-client]" stanza for
  information on this setting.
```

deploymentclient.conf.example

```
#   Version 8.2.0
#
# Example 1
# Deployment client receives apps and places them into the same
# repositoryLocation (locally, relative to $SPLUNK_HOME) as it picked them
# up from. This is typically $SPLUNK_HOME/etc/apps.  There
# is nothing in [deployment-client] because the deployment client is not
# overriding the value set on the deployment server side.

[deployment-client]

[target-broker:deploymentServer]
targetUri= deploymentserver.splunk.mycompany.com:8089


# Example 2
# Deployment server keeps apps to be deployed in a non-standard location on
# the server side (perhaps for organization purposes).
# Deployment client receives apps and places them in the standard location.
# Note: Apps deployed to any location other than
# $SPLUNK_HOME/etc/apps on the deployment client side will
# not be recognized and run.
# This configuration rejects any location specified by the deployment server
# and replaces it with the standard client-side location.

[deployment-client]
serverRepositoryLocationPolicy = rejectAlways
repositoryLocation = $SPLUNK_HOME/etc/apps

[target-broker:deploymentServer]
targetUri= deploymentserver.splunk.mycompany.com:8089


# Example 3
# Deployment client should get apps from an HTTP server that is different
# from the one specified by the deployment server.

[deployment-client]
```

```
serverEndpointPolicy = rejectAlways
endpoint = http://apache.mycompany.server:8080/$serverClassName$/$appName$.tar

[target-broker:deploymentServer]
targetUri= deploymentserver.splunk.mycompany.com:8089


# Example 4
# Deployment client should get apps from a location on the file system and
# not from a location specified by the deployment server

[deployment-client]
serverEndpointPolicy = rejectAlways
endpoint = file:/<some_mount_point>/$serverClassName$/$appName$.tar
handshakeRetryIntervalInSecs=20

[target-broker:deploymentServer]
targetUri= deploymentserver.splunk.mycompany.com:8089

# Example 5
# Deployment client should phonehome server for app updates quicker
# Deployment client should only send back appEvents once a day

[deployment-client]
phoneHomeIntervalInSecs=30
appEventsResyncIntervalInSecs=86400

[target-broker:deploymentServer]
targetUri= deploymentserver.splunk.mycompany.com:8089


# Example 6
# Sets the deployment client connection/transaction timeouts to 1 minute.
# Deployment clients terminate connections if deployment server does not reply.

[deployment-client]
connect_timeout=60
send_timeout=60
recv_timeout=60
```

distsearch.conf

以下为 distsearch.conf 的规范和示例文件。

distsearch.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attributes and values you can use to configure
# distributed search.
#
# To set custom configurations, place a distsearch.conf in
# $SPLUNK_HOME/etc/system/local/.  For examples, see distsearch.conf.example.
# You must restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# These attributes are all configured on the search head, with the exception of
# the optional attributes listed under the SEARCH HEAD BUNDLE MOUNTING OPTIONS
# heading, which are configured on the search peers.
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

[distributedSearch]
* Set distributed search configuration options under this stanza name.
* Follow this stanza name with any number of the following attribute/value
  pairs.
* If you do not set any attribute, the Splunk platform uses the default value
  (if there is one listed).

disabled = <boolean>
* Whether or not distributed search is disabled.
* To turn distributed search off, set to "true". To turn on, set to "false".
* Default: false (distributed search is enabled by default)

heartbeatMcastAddr = <IP address>
* DEPRECATED.

heartbeatPort = <port>
* DEPRECATED.

ttl = <integer>
* DEPRECATED.

heartbeatFrequency = <integer>
* DEPRECATED.

statusTimeout = <integer>
* The connection timeout when gathering a search peer's basic
  info using the /services/server/info REST endpoint.
* Increasing this value on the Distributed Monitoring Console (DMC) can result
  in fewer peers showing up as "Down" in /services/search/distributed/peers/.
* NOTE: Read/write timeouts are automatically set to twice this value.
* Default: 10

removedTimedOutServers = <boolean>
* This setting is no longer supported, and will be ignored.

checkTimedOutServersFrequency = <integer>
* This setting is no longer supported, and will be ignored.

autoAddServers = <boolean>
* DEPRECATED.

bestEffortSearch = <boolean>
* This setting determines whether a search peer that's missing the
  knowledge bundle participates in the search.
* If set to "true", the peer participates in the search even if it
  doesn't have the knowledge bundle. The peers that don't have any
  common bundles are simply not searched.
* Default: false

skipOurselves = <boolean>
* DEPRECATED.

servers = <comma-separated list>
* An initial list of servers.
* Each member of this list must be a valid URI in the format of
  scheme://hostname:port
```

```
disabled_servers = <comma-separated list>
* A list of disabled search peers. Peers in this list are not monitored
  or searched.
* Each member of this list must be a valid URI in the format of
  scheme://hostname:port

quarantined_servers = <comma-separated list>
* A list of quarantined search peers.
* Each member of this list must be a valid URI in the format of
  scheme://hostname:port
* The admin might quarantine peers that seem unhealthy and are degrading search
  performance of the whole deployment.
* Quarantined peers are monitored but not searched by default.
* A user might use the splunk_server arguments to target a search
  to quarantined peers at the risk of slowing the search.
* When you quarantine a peer, any real-time searches that are running are NOT
  restarted. Currently running real-time searches continue to return results
  from the quarantined peers. Any real-time searches started after the peer
  has been quarantined will not contact the peer.
* Whenever a quarantined peer is excluded from search, appropriate warnings
  are displayed in the search.log and in the Job Inspector.

useDisabledListAsBlacklist = <boolean>
* Whether or not the search head treats the 'disabled_servers' setting as
  a deny list.
* If set to "true", search peers that appear in both the 'servers'
  and 'disabled_servers' lists are disabled and do not participate in search.
* If set to "false", search peers that appear in both lists are enabled
  and participate in search.
* Default: false

shareBundles = <boolean>
* DEPRECATED.

useSHPBundleReplication =[true|false|always]
* Whether the search heads in the pool compete with each other to decide which
  one handles the bundle replication (every time bundle replication needs
  to happen), or whether each of them individually replicates the bundles.
* This setting is only relevant in search head pooling environments.
* When set to "always" and you have configured mounted bundles, use the
  search head pool GUID rather than each individual server name to identify
  bundles (and search heads to the remote peers).
* Default: true

trySSLFirst = <boolean>
* This setting is no longer supported, and will be ignored.

peerResolutionThreads = <integer>
* This setting is no longer supported, and will be ignored.

defaultUriScheme = [http|https]
* The default URI scheme to use if you add a new peer without specifying
  a scheme for the URI to its management port.
* Default: https

serverTimeout = <integer>
* This setting is no longer supported, and will be ignored.
* It has been replaced by the following settings:
  'connectionTimeout', 'sendTimeout', 'receiveTimeout'.

connectionTimeout = <integer>
* The maximum amount of time to wait, in seconds, when the search head
  is attempting to establish a connection to the search peer.
* Default: 10

sendTimeout = <integer>
* The maximum amount of time to wait, in seconds, when the search head
  is attempting to write or send data to a search peer.
```

```
* Default: 30

receiveTimeout = <integer>
* The maximum amount of time to wait, in seconds, when the search head
  is attempting to read or receive data from a search peer.
* Default: 600

authTokenConnectionTimeout = <integer>
* The maximum amount of time to wait, in seconds, for the search head
  to connect to a remote search peer when reading its authentication token.
* Fractional seconds are allowed (for example, 10.5 seconds).
* Default: 5

authTokenSendTimeout = <integer>
* The maximum amount of time to wait, in seconds, for the search head
  to send a request to a remote peer when getting its authentication token.
* Fractional seconds are allowed (for example, 10.5 seconds).
* Default: 10

authTokenReceiveTimeout = <integer>
* The maximum amount of time to wait, in seconds, for the search head to
  receive a response from a remote peer when getting its authentication token.
* Fractional seconds are allowed (for example, 10.5 seconds).
* Default: 10

bcs = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* A string that represents the URL for the Bucket Catalog Service.
* Optional.
* There is no default.

bcsPath = <path>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Default: /bcs/v1/buckets
```

分布式搜索关键对生成选项

```
[tokenExchKeys]

certDir = <directory>
* This directory contains the local Splunk Enterprise instance's distributed
  search key pair.
* This directory also contains the public keys of servers that distribute
  searches to this Splunk Enterprise instance.
* Default: $SPLUNK_HOME/etc/auth/distServerKeys

publicKey = <string>
* The name of the public key file for this Splunk Enterprise instance.
* Default: trusted.pem

privateKey = <string>
* The name of private key file for this Splunk Enterprise instance.
* Default: private.pem

genKeyScript = <string>
* The command used to generate the two files above.
* Default: $SPLUNK_HOME/bin/splunk, createssl, audit-keys

minKeyLength = <integer>
* The minimum key length, in bits, that this Splunk platform instance accepts
  when you configure it as a search peer.
```

```
* Typical key lengths are 1024 or 2048, but the 'genKeyScript' can be configured
  to generate 3072- and 4096-bit keys.
* Example: 2048
* Optional.
* No default.

legacyKeyLengthAuthPolicy = [ warn | reject ]
* This setting applies to existing search heads that were added prior to
  the configuration of a 'minKeyLength' value on this search peer.
* When set to 'warn', this search peer fulfills an authentication token request
  from a search head that supplies a key that is shorter than 'minKeyLength'
  bits, after it first writes a warning message to splunkd.log.
* When set to 'reject', this search peer refuses an authentication token request
  from a search head that supplies a key whose length is too short. It writes
  an error message to splunkd.log about this rejection. This prevents search
  heads from running searches on this search peer when their key lengths
  are not long enough.
* Optional.
* No default.
```

复制设置选项

```
[replicationSettings]

replicationPolicy = [classic | cascading | rfs | mounted]
* The strategy used by the search head to replicate knowledge bundle across all
  search peers.
* When set to 'classic', the search head replicates bundle to all search peers.
* When set to 'cascading', the search head replicates bundle to select few
  search peers who in turn replicate to other peers. For tuning parameters for
  cascading replication, refer to the `cascading_replication` stanza in
  server.conf.
* When set to 'rfs', the search head uploads the bundle to the configured remote
  file system like Amazon S3. Note that this policy is not supported for
  on-premise Splunk Enterprise deployments.
* When set to 'mounted', the search head assumes that all the search peers can
  access the correct bundles via shared storage and have configured the
  options listed under the "SEARCH HEAD BUNDLE MOUNTING OPTIONS" heading.
  The 'mounted' option replaces the 'shareBundles' setting, which is no longer
  available. The functionality remains unchanged.
* Default: classic
```

'Classic' 复制-特定设置

```
connectionTimeout = <integer>
* The maximum amount of time to wait, in seconds, before a search head's initial
  connection to a peer times out.
* Default: 60

sendRcvTimeout = <integer>
* The maximum amount of time to wait, in seconds, when a search head is sending
  a full replication to a peer.
* Default: 60

replicationThreads = <positive integer>|auto
* The maximum number of threads to use when performing bundle replication
  to peers.
* If set to "auto", the peer auto-tunes the number of threads it uses for
  bundle replication.
    * If the peer has 3 or fewer CPUs, it allocates 2 threads.
    * If the peer has 4-7 CPUs, it allocates up to '# of CPUs - 2' threads.
    * If the peer has 8-15 CPUs, it allocates up to '# of CPUs - 3' threads.
    * If the peer has 16 or more CPUs, it allocates up to
      '# of CPUs - 4' threads.
* This setting is applicable only when replicationPolicy is set to 'classic'.
* Maximum accepted value for this setting is 16.
* Default: auto

maxMemoryBundleSize = <integer>
* UNSUPPORTED: This setting is no longer supported

maxBundleSize = <integer>
* The maximum bundle size, in megabytes, for which replication can occur.
* If a bundle is larger than this value, bundle replication does not occur and
  Splunk logs an error message.
* The maximum value is 102400 (100 GB).
* If the bundle exceed 'maxBundleSize', you must increase this value or remove
  files from the bundle to resume normal system operation.
* This value must be larger than the current bundle size. Do not decrease
  it to a value less than the most recent bundle size.
* Bundles reside in the $SPLUNK_HOME/var/run directory on the search head.
  Check the size of the most recent full bundle in that directory.
* Default: 2048 (2GB)

warnMaxBundleSizePerc = <integer>
* The search head sends warnings when the knowledge bundle size exceeds this setting's
  percentage of maxBundleSize.
* For example, if maxBundleSize is 2GB and this setting is 50, the search head sends
  warnings when the bundle size exceeds 1GB (2GB * 50%).
* Supported values range from 1 to 100.
* Default: 75

concerningReplicatedFileSize = <integer>
* The maximum allowable file size, in megabytes, within a bundle.
* Any individual file within a bundle that is larger than this value
  triggers a splunkd.log message.
* If excludeReplicatedLookupSize is enabled with a value less than or equal to
  concerningReplicatedFileSize, no warning message will be displayed.
* Where possible, avoid replicating such files by customizing your deny lists.
* Default: 500

excludeReplicatedLookupSize = <integer>
* The maximum allowable lookup file size, in megabytes, during knowledge
  bundle replication.
* Any lookup file larger than this value is excluded from the knowledge bundle
  that the search head replicates to its search peers.
* When this value is set to "0", this feature is disabled. All file sizes
  are included.
* Default: 0

allowStreamUpload = [auto|true|false]
* UNSUPPORTED: This setting is no longer supported

allowSkipEncoding = <boolean>
* UNSUPPORTED: This setting is no longer supported

allowDeltaUpload = <boolean>
* Whether to enable delta-based bundle replication.
* Delta-based replication keeps the bundle compact, with the search head only
  replicating the changed portion of the bundle to its search peers.
* Default: true

preCompressKnowledgeBundlesClassicMode = <boolean>
* Whether or not this search head cluster member compresses the
  knowledge bundles before replicating them to search peers.
* When set to "true", the search head compresses the bundles
  before replicating them to search peers.
  This helps reduce network bandwidth consumption during replications.
* Default: true
```

```
preCompressKnowledgeBundlesCascadeMode = <boolean>
* Whether or not this search head cluster member compresses the
  knowledge bundles before replicating them to search peers.
* When set to "true", the search head compresses the bundles
  before replicating them to search peers.
  This helps reduce network bandwidth consumption during replications.
* This flag applies to cascade mode replication only
* Default: false

sanitizeMetaFiles = <boolean>
* Whether to sanitize or filter *.meta files before replication.
* Use this setting to avoid unnecessary replications triggered by
  writes to *.meta files that have no real effect on search behavior.
* The types of stanzas that "survive" filtering are configured via the
  replicationSettings:refineConf stanza.
* The filtering process removes comments and cosmetic white space.
* Default: true

statusQueueSize = <integer>
* The maximum number of knowledge bundle replication cycle status values that the
  search head maintains in memory. These status values remain accessible by queries.
* Default: 5

allowDeltaIndexing = <boolean>
* Specifies whether to enable delta indexing for knowledge bundle replication.
* Delta indexing causes the indexer to index only those lookup files that have
  changed since the previous bundle, thus reducing the time and resources needed
  to create a new bundle.
* Delta indexing also keeps the bundle compact by using hard links for files that
  have not changed since the previous bundle, instead of copying those files to the
  new bundle.
* Do not change this setting unless instructed to do so by Splunk Support.
* Default: true
```

级联包复制-特定设置

```
cascade_replication_status_interval = <interval>
* The interval at which the cascading replication status thread runs
  to update the cascading replication status for all peers.
* The maximum and recommended value for this setting is 60s.
* The minimum accepted value is 1s.
* Do not change this setting without consulting Splunk Support.
* Default: 60s

cascade_replication_status_unchanged_threshold = <integer>
* The maximum number of intervals (interval length being determined
  by the "cascade_replication_status_interval" setting) that a peer's
  status can remain unchanged while stuck in an in-progress state.
* Once this limit is reached, the replication is resent to this peer.
* The maximum accepted value for this setting is 20.
* The minimum accepted value for this setting is 1.
* Default: 5
```

RFS（AKA S3/远程文件系统）复制特定设置

```
enableRFSReplication = <boolean>
* DEPRECATED.

enableRFSMonitoring = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* If set to "true", remote file system bundle monitoring is enabled.
* Search peers periodically monitor the configured remote file system
  and download any bundles that they do not have on disk.
* Required on search peers.
* Default: false

rfsMonitoringPeriod = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The amount of time, in seconds, that a search peer waits between polling
  attempts. You must also configure this setting on search heads, whether or
  not the 'enableRFSMonitoring' setting is enabled on them.
* For search heads when the 'rfsSyncReplicationTimeout' setting is set to
  "auto", this setting automatically adapts the 'rfsSyncReplicationTimeout'
  setting to the monitoring frequency of the search peers.
* If you set this value to less than "60", it automatically defaults to 60.
* Default: 60

rfsSyncReplicationTimeout = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The amount of time, in seconds, that a search head waits for synchronous
  replication to complete. Only applies to RFS bundle replication.
* The default value is computed from the 'rfsMonitoringPeriod' setting.
  For example, (rfsMonitoringPeriod + 60) * 5, where 60 is the non-configurable
  polling interval from search heads to search peers, and 5 is an
  arbitrary multiplier.
* If you do not modify the 'rfsMonitoringPeriod' setting, the default
  value is 600.
* Default: auto

activeServerTimeout = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The amount of time, in seconds, that must elapse before a search peer
  considers the search head to be inactive and no longer attempts to
  download knowledge bundles from that search head from S3/RFS.
* Only applies to RFS bundle replication.
* Default: 360

path = <path>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The remote storage location where bundles reside.
* Required.
* The format for this attribute is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string
    for identifying a location inside the storage system.
* The following external systems are supported:
  * Object stores that support AWS's S3 protocol. These use the scheme "s3".
    Example: "path=s3://mybucket/some/path"
  * POSIX file system, potentially a remote file system mounted over NFS.
    These use the scheme "file".
    Example: "path=file:///mnt/cheap-storage/some/path"

remote.s3.url_version = v1|v2
* Specifies which url version to use, both for parsing the endpoint/path, and
* for communicating with the remote storage. This value only needs to be
* specified when running on non-AWS S3-compatible storage that has been configured
* to use v2 urls.
* In v1 the bucket is the first element of the path.
* Example: mydomain.com/bucketname/rest/of/path
* In v2 the bucket is the outermost subdomain in the endpoint.
* Exmaple: bucketname.mydomain.com/rest/of/path
* Default: v1

remote.s3.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
```

```
* The URL of the remote storage system supporting the S3 API.
* The protocol, http or https, can be used to enable or disable SSL
  connectivity with the endpoint.
* If not specified and the indexer is running on EC2, the endpoint is
  constructed automatically based on the EC2 region of the instance where
  the indexer is running, as follows: https://s3-<region>.amazonaws.com
* Example: https://s3-us-west-2.amazonaws.com

remote.s3.bucket_name = <string>
* Specifies the S3 bucket to use when endpoint isn't set.
* Example
  path = s3://path/example
  remote.s3.bucket_name = mybucket
* Used for constructing the amazonaws.com hostname, as shown above.
* If neither endpoint nor bucket_name is specified, the bucket is assumed
  to be the first path element.
* Optional.

remote.s3.encryption = [sse-s3|none]
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies the schema to use for Server-Side Encryption (SSE) for data at rest.
* sse-s3: See:
  http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingServerSideEncryption.html
* none: Server-side encryption is disabled. Data is stored unencrypted on the
  remote storage.
* Optional.
* Default: none

remote.s3.supports_versioning = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies whether the remote storage supports versioning.
* Versioning is a means of keeping multiple variants of an object
  in the same bucket on the remote storage. While versioning is not used by
  RFS bundle replication, this much match the configuration of the S3 bucket
  for bundle reaping to work correctly.
* This setting determines how splunkd removes data from remote storage.
  If set to true, splunkd will delete all versions of objects at
  time of data removal. Otherwise, if set to false, splunkd will use a simple DELETE
  (See https://docs.aws.amazon.com/AmazonS3/latest/dev/DeletingObjectVersions.html).
* Optional.
* Default: true
```

搜索头捆绑包安装选项

```
# Configure these settings on the search peers only, and only if you also
# configure replicationPolicy=mounted in the [replicationSettings] stanza on the search
# head. Use these settings to access bundles that are not replicated. The search
# peers use a shared
# storage mount point to access the search head bundles ($SPLUNK_HOME/etc).
#*******************************************************************************

[searchhead:<searchhead-splunk-server-name>]
* <searchhead-splunk-server-name> is the name of the related search head
  installation.
* The server name is located in server.conf: serverName = <name>

mounted_bundles = <boolean>
* Determines whether the bundles belonging to the search head specified in the
  stanza name are mounted.
* You must set this value to "true" to use mounted bundles.
* Default: false

bundles_location = <path>
```

```
* The path to where the search head's bundles are mounted.
* This path must be the mount point on the search peer, not on the search head.
* The path should point to a directory that is equivalent to $SPLUNK_HOME/etc/.
* The path must contain at least the following subdirectories: system, apps,
  users

[replicationSettings:refineConf]

replicate.<conf_file_name> = <boolean>
* Whether or not the Splunk platform replicates a particular type of
  *.conf file, along with any associated permissions in *.meta files.
* These settings on their own do not cause files to be replicated. You must
  still allow list a file (via the 'replicationWhitelist' setting) in order for
  it to be eligible for inclusion via these settings.
* In a sense, these settings constitute another level of filtering that applies
  specifically to *.conf files and stanzas with *.meta files.
* Default: false
```

复制允许列表选项

```
[replicationWhitelist]

<name> = <string>
* Controls the Splunk platform search-time configuration replication from
  search heads to search peers.
* Only files that match an allow list entry are replicated.
* Conversely, files that do not match an allow list entry are not replicated.
* Only files located under $SPLUNK_HOME/etc will ever be replicated in this way.
  * The regex is matched against the file name, relative to $SPLUNK_HOME/etc.
    Example: For a file "$SPLUNK_HOME/etc/apps/fancy_app/default/inputs.conf",
             this allow list should match "apps/fancy_app/default/inputs.conf"
  * Similarly, the etc/system files are available as system/...
    User-specific files are available as users/username/appname/...
* The 'name' element is generally descriptive, with one exception:
  If <name> begins with "refine.", files allow listed by the given pattern will
  also go through another level of filtering configured in the
  [replicationSettings:refineConf] stanza.
* The allow list pattern is the Splunk style pattern matching, which is
  primarily regex-based with special local behavior for '...' and '*'.
  * '...' matches anything, while '*' matches anything besides
    directory separators. See props.conf.spec for more detail on these.
  * Note: '.' will match a literal dot, not any character.
* These lists are applied globally across all configuration data, not to any
  particular application, regardless of where they are defined. Be careful to
  pull in only your intended files.
```

复制拒绝列表选项

```
[replicationBlacklist]

<name> = <string>
* All comments from the replication allow list notes above also apply here.
* Replication deny list takes precedence over the allow list, meaning that a
  file that matches both the allow list and the deny list is NOT replicated.
* Use this setting to prevent unwanted bundle replication in two common
  scenarios:
    * Very large files which part of an application might not want to be
      replicated, especially if they are not needed on search nodes.
    * Frequently updated files (for example, some lookups) will trigger
      retransmission of all search head data.
```

```
* These lists are applied globally across all configuration data. Especially
  for deny listing, be sure to constrain your deny list to match only data
  that your application does not need.
```

捆绑包执行者允许列表选项

```
[bundleEnforcerWhitelist]

<name> = <string>
* Peers use this setting to make sure knowledge bundles sent by search heads and
  masters do not contain alien files.
* If this stanza is empty, the receiver accepts the bundle unless it contains
  files matching the rules specified in the [bundleEnforcerBlacklist] stanza.
  Hence, if both [bundleEnforcerWhitelist] and [bundleEnforcerBlacklist] are
  empty (which is the default), then the receiver accepts all bundles.
* If this stanza is not empty, the receiver accepts the bundle only if it
  contains only files that match the rules specified here but not those in the
  [bundleEnforcerBlacklist] stanza.
* All rules are regular expressions.
* No default.
```

捆绑包执行者拒绝列表选项

```
[bundleEnforcerBlacklist]

<name> = <string>
* Peers use this setting to make sure knowledge bundle sent by search heads and
  masters do not contain alien files.
* This list overrides the [bundleEnforceWhitelist] stanza above. This means that
  the receiver removes the bundle if it contains any file that matches the
  rules specified here even if that file is allowed by [bundleEnforcerWhitelist].
* If this stanza is empty, then only [bundleEnforcerWhitelist] matters.
* No default.
```

分布式搜索组定义

```
# These settings are the definitions of the distributed search groups. A search
# group is a set of search peers as identified by thier host:management-port. A
# search can be directed to a search group using the splunk_server_group argument.
# The search is dispatched to only the members of the group.
#*******************************************************************************

[distributedSearch:<splunk-server-group-name>]
* <splunk-server-group-name> is the name of the Splunk server group that is
  defined in this stanza

servers = <comma-separated list>
* A list of search peers that are members of this group.
* The list must use peer identifiers (i.e. hostname:port).

default = <boolean>
* Whether or not this group is the default group of peers against which all
  searches are run, unless a server group is not explicitly specified.
```

distsearch.conf.example

.

```
#   Version 8.2.0
#
# These are example configurations for distsearch.conf. Use this file to
# configure distributed search.  For all available attribute/value pairs, see
# distsearch.conf.spec.
#
# There is NO DEFAULT distsearch.conf.
#
# To use one or more of these configurations, copy the configuration block into
# distsearch.conf in $SPLUNK_HOME/etc/system/local/.  You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[distributedSearch]
servers = https://192.168.1.1:8059,https://192.168.1.2:8059

# This entry distributes searches to 192.168.1.1:8059,192.168.1.2:8059.
# These machines will be contacted on port 8059 using https
# Attributes not set here will use the defaults listed in distsearch.conf.spec.

# this stanza controls the timing settings for connecting to a remote peer and
# the send timeout
[replicationSettings]
connectionTimeout = 10
sendRcvTimeout = 60

# this stanza controls what files are replicated to the other peer each is a
# regex
[replicationWhitelist]
allConf = *.conf

# Mounted bundles example.
# This example shows two distsearch.conf configurations, one for the search
# head and another for each of the search head's search peers. It shows only
# the attributes necessary to implement mounted bundles.

# On a search head whose Splunk server name is "searcher01":
[replicationSettings]
...
replicationPolicy = mounted

# On each search peer:
[searchhead:searcher01]
mounted_bundles = true
bundles_location = /opt/shared_bundles/searcher01
```

eventdiscoverer.conf

以下为 eventdiscoverer.conf 的规范和示例文件。

eventdiscoverer.conf.spec

```
#   Version 8.2.0

# This file contains possible settings and values you can use to configure
# event discovery through the search command "typelearner."
#
# There is an eventdiscoverer.conf in $SPLUNK_HOME/etc/system/default/.  To set
# custom configurations, place an eventdiscoverer.conf in
# $SPLUNK_HOME/etc/system/local/.  For examples, see
# eventdiscoverer.conf.example. You must restart Splunk to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

ignored_keywords = <comma-separated list of terms>
* If you find that event types have terms you do not want considered (for
  example, "mylaptopname"), add that term to this list.
* Terms in this list are never considered for defining an event type.
* For more details, see $SPLUNK_HOME/etc/system/default/eventdiscoverer.conf).
* Default = "sun, mon, tue,..."

ignored_fields = <comma-separated list of fields>
* Similar to ignored_keywords, except these are fields as defined in Splunk
  instead of terms.
* Defaults include time-related fields that would not be useful for defining an
  event type.

important_keywords = <comma-separated list of terms>
* When there are multiple possible phrases for generating an eventtype search,
  those phrases with important_keyword terms are favored.  For example,
  "fatal error" would be preferred over "last message repeated", as "fatal" is
  an important keyword.
* Default = "abort, abstract, accept,..."
* For the full default setting, see $SPLUNK_HOME/etc/system/default/eventdiscoverer.conf.
```

eventdiscoverer.conf.example

```
#   Version 8.2.0
#
# This is an example eventdiscoverer.conf.  These settings are used to control
# the discovery of common eventtypes used by the typelearner search command.
#
# To use one or more of these configurations, copy the configuration block into
# eventdiscoverer.conf in $SPLUNK_HOME/etc/system/local/.  You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# Terms in this list are never considered for defining an eventtype.
ignored_keywords = foo, bar, application, kate, charlie

# Fields in this list are never considered for defining an eventtype.
ignored_fields = pid, others, directory
```

event_renderers.conf

以下为 event_renderers.conf 的规范和示例文件。

event_renderers.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attribute/value pairs for configuring event rendering properties.
#
# Beginning with version 6.0, Splunk Enterprise does not support the
# customization of event displays using event renderers.
#
# There is an event_renderers.conf in $SPLUNK_HOME/etc/system/default/.  To set custom configurations,
# place an event_renderers.conf in $SPLUNK_HOME/etc/system/local/, or your own custom app directory.
#
# To learn more about configuration files (including precedence) please see the documentation
# located at http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#     * You can also define global settings outside of any stanza, at the top of the file.
#     * Each conf file should have at most one default stanza. If there are multiple default
#       stanzas, attributes are combined. In the case of multiple definitions of the same
#       attribute, the last definition in the file wins.
#     * If an attribute is defined at both the global level and in a specific stanza, the
#       value in the specific stanza takes precedence.
```

[<name>]

```
* Stanza name. This name must be unique.

eventtype = <event type>
* Specify event type name from eventtypes.conf.

priority = <positive integer>
* Highest number wins!!

template = <valid Mako template>
* Any template from the $APP/appserver/event_renderers directory.

css_class = <css class name suffix to apply to the parent event element class attribute>
* This can be any valid css class value.
* The value is appended to a standard suffix string of "splEvent-". A css_class value of foo would
result in the parent element of the event having an html attribute class with a value of splEvent-foo
(for example, class="splEvent-foo"). You can externalize your css style rules for this in
$APP/appserver/static/application.css. For example, to make the text red you would add to
application.css:.splEvent-foo { color:red; }
```

event_renderers.conf.example

```
#   Version 8.2.0
# DO NOT EDIT THIS FILE!
# Please make all changes to files in $SPLUNK_HOME/etc/system/local.
# To make changes, copy the section/stanza you want to change from $SPLUNK_HOME/etc/system/default
# into ../local and edit there.
#
# This file contains mappings between Splunk eventtypes and event renderers.
#
```

```
# Beginning with version 6.0, Splunk Enterprise does not support the
# customization of event displays using event renderers.
#

[event_renderer_1]
eventtype = hawaiian_type
priority = 1
css_class = EventRenderer1

[event_renderer_2]
eventtype = french_food_type
priority = 1
template = event_renderer2.html
css_class = EventRenderer2

[event_renderer_3]
eventtype = japan_type
priority = 1
css_class = EventRenderer3
```

eventtypes.conf

以下为 eventtypes.conf 的规范和示例文件。

eventtypes.conf.spec

```
#   Version 8.2.0
#
# This file contains descriptions of the settings that you can use to
# configure event types and their properties.
#
# Each stanza controls different settings.
#
# There is an eventtypes.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name eventtypes.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see eventtypes.conf.example.
#
# Any event types that you create through Splunk Web are automatically added to
# the user's $SPLUNK_HOME/etc/users/$user/$app/local/eventtypes.conf file.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top
#    of the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, attributes are combined. In the case of
#    multiple definitions of the same attribute, the last definition in the
#    file wins.
#  * If an attribute is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.
```

[<$EVENTTYPE>]

```
* Header for the event type
* $EVENTTYPE is the name of your event type.
* You can have any number of event types, each represented by a stanza and
  any number of the following attribute/value pairs.
* NOTE: If the name of the event type includes field names surrounded by the
  percent character (for example "%$FIELD%") then the value of $FIELD is
  substituted into the event type name for that event.  For example, an
  event type with the header [cisco-%code%] that has "code=432" becomes
  labeled "cisco-432".

disabled = [1|0]
* Toggle event type on or off.
* Set to 1 to disable.

search = <string>
* Search terms for this event type.
* For example: error OR warn.
* NOTE: You cannot base an event type on:
* A search that includes a pipe operator (a "|" character).
* A subsearch (a search pipeline enclosed in square brackets).
* A search referencing a report. This is a best practice. Any report that is referenced by an
  event type can later be updated in a way that makes it invalid as an event type. For example,
  a report that is updated to include transforming commands cannot be used as the definition for
  an event type. You have more control over your event type if you define it with the same search
  string as the report.

priority = <integer, 1 through 10>
* Value used to determine the order in which the matching eventtypes of an
  event are displayed.
* 1 is the highest priority and 10 is the lowest priority.

description = <string>
* Optional human-readable description of this saved search.

tags = <string>
* DEPRECATED - see tags.conf.spec

color = <string>
* color for this event type.
* Supported colors: none, et_blue, et_green, et_magenta, et_orange,
  et_purple, et_red, et_sky, et_teal, et_yellow
```

eventtypes.conf.example

```
#   Version 8.2.0
#
# This file contains an example eventtypes.conf.  Use this file to configure custom eventtypes.
#
# To use one or more of these configurations, copy the configuration block into eventtypes.conf
# in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the documentation
# located at http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#

# The following example makes an eventtype called "error" based on the search "error OR fatal."

[error]
search = error OR fatal
```

```
# The following example makes an eventtype template because it includes a field name
# surrounded by the percent character (in this case "%code%").
# The value of "%code%" is substituted into the event type name for that event.
# For example, if the following example event type is instantiated on an event that has a
# "code=432," it becomes "cisco-432".

[cisco-%code%]
search = cisco
```

federated.conf

以下为 federated.conf 的规范和示例文件。

federated.conf.spec

```
#   Version 8.2.0
#
# This file contains possible setting and value pairs for federated provider entries
# for use in Data Fabric Search (DFS), when the federated search functionality is
# enabled.
#
# A federated search allows authorized users to run searches across multiple federated
# providers. Only Splunk deployments are supported as federated providers. Information
# on the Splunk deployment (i.e. the federated provider) is added in the federated
# provider stanza of the federated.conf file. A federated search deployment can have
# multiple federated search datasets. The settings for federated search dataset stanzas
# are located in savedsearches.conf.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# Here are the settings for the federated provider stanzas.
```

[<federated-provider-stanza>]

```
* Create a unique stanza name for each federated provider.

type = [splunk]
* Specifies the type of the federated provider.
* Only Splunk deployments are supported as of this revision.
* Default: splunk

ip = <IP address or Host Name>
* Identifies the IP address or host name of the federated provider.
* Default: No default.

splunk.port = <port>
* Identifies the splunkd REST port on the remote Splunk deployment.
* No default.

splunk.serviceAccount = <user>
* Identifies an authorized user on the remote Splunk deployment.
* The security credentials associated with this account are managed securely in
  fshpasswords.conf.
* No default.

splunk.app = <string>
* The name of the Splunk application on the remote Splunk deployment in which
* to perform the search.
* No default.

#
# Federated Provider Stanza
```

```
#
```

[provider]

```
* Each federated provider definition must have a separate stanza.
* <provider> must follow the following syntax:
  provider://<unique-federated-provider-name>
* <unique-federated-provider-name> can contain only alphanumeric characters and
  underscores.

type = [splunk]
* Specifies the type of the federated provider.
* Only Splunk deployments are supported as of this version.
* Default: splunk

hostPort = <Host_Name_or_IP_Address>:<service_port>
* Specifies the protocols required to connect to a federated provider.
* You can provide a host name or an IP address.
* The <service_port> can be any legitimate port number.
* No default.

serviceAccount = <user_name>
* Specifies the user name for a service account that has been set up on the
  federated provider for the purpose of enabling secure federated search.
* This service account allows the federated search head on your local Splunk
  platform deployment to query datasets on the federated provider in a secure
  manner.
* No default.

password = <password>
* Specifies the service account password for the user specified in the
  'serviceAccount' setting.
* No default.

appContext = <application_short_name>
* Specifies the Splunk application context for the federated searches that will
  be run with this federated provider definition.
* Provision of an application context ensures that federated searches which use
  the federated provider are limited to the knowledge objects that are
  associated with the named application. Application context can also affect
  search job quota and resource allocation parameters.
* NOTE: This setting applies only when `useFSHKnowledgeObjects = false`.
* <application_short_name> must be the "short name" of a Splunk application
  currently installed on the federated provider. For example, the short name of
  Splunk IT Service Intelligence is 'itsi'.
* You can create multiple federated provider definitions for the same remote
  search head that differ only by app context.
* Find the short names of apps installed on a Splunk deployment by going to
  'Apps > Manage Apps' and reviewing the values in the 'Folder name' column.
* Default: search

useFSHKnowledgeObjects = <boolean>
* Determines whether federated searches with this provider use knowledge
  objects from the federated provider (the remote search head) or from the
  federated search head (the local search head).
* When set to 'true' federated searches with this provider use knowledge
  objects from the federated search head.
* Default: true
```

federated.conf.example

```
#   Version 8.2.0
#
# This is an example federated.conf.
```

```
#
#
## Federated Providers

[deployment-sf-search]
type = splunk
ip = 192.0.2.0
splunk.port = 8089
splunk.serviceAccount = sf-search
splunk.app = search

[deployment-sf-hr]
type = splunk
ip = 192.0.2.0
splunk.port = 8089
splunk.serviceAccount = sf-hr
splunk.app = search

[deployment-sr-search]
type = splunk
ip = 198.51.100.0
splunk.port = 8089
splunk.serviceAccount = sf-search
splunk.app = search
```

global-banner.conf

以下为 global-banner.conf 的规范和示例文件。

global-banner.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure a global banner at the top of every page in Splunk, above the Splunk bar.
#
# Each stanza controls different search commands settings.
#
# There is a global-banner.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name global-banner.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see global-banner.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[BANNER_MESSAGE_SINGLETON]

```
* IMPORTANT: It is only possible to declare one global banner. This is the only
  stanza that Splunk Web will read.

global_banner.visible = <bool>
```

```
* Default: false

global_banner.message = <string>
* Default: Sample banner notification text. Please replace with your own message.

global_banner.background_color = [green|blue|yellow|orange|red]
* Default: blue

global_banner.hyperlink = [http://<string>|https://<string>]
* Default: none

global_banner.hyperlink_text = <string>
* Default: none
```

global-banner.conf.example

```
#   Version 8.2.0
#
# The following are example global-banner.conf configurations. Configure properties for
# your custom application.
#
# To use one or more of these configurations, copy the configuration block into
# app.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[BANNER_MESSAGE_SINGLETON]
global_banner.visible = false
global_banner.message = Sample banner notification text. Please replace with your own message.
global_banner.background_color = blue
global_banner.hyperlink = https://www.splunk.com/
global_banner.hyperlink_text = Splunk
```

fields.conf

以下为 fields.conf 的规范和示例文件。

fields.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains possible attribute and value pairs for:
#  * Telling Splunk how to handle multi-value fields.
#  * Distinguishing indexed and extracted fields.
#  * Improving search performance by telling the search processor how to
#    handle field values.
#
# Each stanza controls different search commands settings.
#
# There is a fields.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name fields.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see fields.conf.example.
# You must restart the Splunk instance to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
#
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

[<field name>|sourcetype::<sourcetype>::<wildcard expression>]

```
* The name of the field that you are configuring. This can be a simple field name,
  or it can be a wildcard expression that is scoped to a source type.
* Field names can contain only "a-z", "A-Z", "0-9", "." , ":", and "_". They
  cannot begin with a number or "_".
  Field names cannot begin with a number "0-9" or an underscore "_".
* Wildcard expressions have the same limitations as field names, but they can
  also contain and/or start with a *.
* Do not create indexed fields with names that collide with names of fields
  that are extracted at search time.
* A source-type-scoped wildcard expression causes all indexed fields that match
  the wildcard expression to be scoped with the specified source type.
  * Apply source-type-scoped wildcard expressions to all fields associated with
    structured data source types, such as JSON-formatted data. Do not apply it
    to mixed datatypes that contain both structured and unstructured data.
  * When you apply this method to structured data fields, searches against
    those fields should complete faster.
  * Example: '[sourcetype::splunk_resource_usage::data*]' defines all fields
    starting with "data" as indexed fields for
    'sourcetype=splunk_resource_usage'.
  * The Splunk software processes source-type-scoped wildcard expressions
    before it processes source type aliases.
  * Source-type-scoped wildcard expressions require
  'indexed_fields_expansion = t' in limits.conf.
* Follow the stanza name with any number of the following attribute/value
  pairs.

# 'TOKENIZER' enables you to indicate that a field value is a smaller part of a
# token. For example, your raw event has a field with the value "abc123", but
# you need this field to to be a multivalue field with both "abc" and "123" as
# values.
TOKENIZER = <regular expression>
* A regular expression that indicates how the field can take on multiple values
  at the same time.
* Use this setting to configure multivalue fields. Refer to the online
  documentation for multivalue fields.
* If empty, the field can only take on a single value.
* Otherwise, the first group is taken from each match to form the set of
  values.
* This setting is used by the "search" and "where" commands, the summary and
  XML outputs of the asynchronous search API, and by the "top", "timeline", and
  "stats" commands.
* Tokenization of indexed fields is not supported. If "INDEXED = true",
  the tokenizer attribute will be ignored.
* No default.

INDEXED = <boolean>
* Indicates whether a field is created at index time or search time.
* Set to "true" if the field is created at index time.
* Set to "false" for fields extracted at search time. This accounts for the
  majority of fields.
* Default: false

INDEXED_VALUE = [true|false|<sed-cmd>|<simple-substitution-string>]
* Set to "true" if the value is in the raw text of the event.
* Set to "false" if the value is not in the raw text of the event.
* Setting this to "true" expands any search for "key=value"
  into a search for value AND key=value
  since value is indexed.
* For advanced customization, this setting supports sed style substitution.
  For example, 'INDEXED_VALUE=s/foo/bar/g'
  takes the value of the field, replaces all instances of 'foo' with 'bar,'
  and uses that new value as the value to search in the index.
* This setting also supports a simple substitution based on looking for the
  literal string '<VALUE>' (including the '<' and '>' characters).
  For example, 'INDEXED_VALUE=source::*<VALUE>*'
  takes a search for 'myfield=myvalue'
  and searches for 'source::*myvalue*'
  in the index as a single term.
* For both substitution constructs, if the resulting string starts with a '[',
  Splunk interprets the string as a Splunk LISPY expression.  For example,
  'INDEXED_VALUE=[OR <VALUE> source::*<VALUE>]'
  turns 'myfield=myvalue'
  into applying the LISPY expression '[OR myvalue source::*myvalue]'
  (meaning it matches either 'myvalue' or 'source::*myvalue' terms).
* NOTE: You only need to set 'indexed_value' if "indexed = false".
* Default: true
```

fields.conf.example

```
#   Version 8.2.0
#
# This file contains an example fields.conf.  Use this file to configure
# dynamic field extractions.
#
# To use one or more of these configurations, copy the configuration block into
# fields.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# These tokenizers result in the values of To, From and Cc treated as a list,
# where each list element is an email address found in the raw string of data.

[To]
TOKENIZER = (\w[\w\.\-]*@[\w\.\-]*\w)

[From]
TOKENIZER = (\w[\w\.\-]*@[\w\.\-]*\w)

[Cc]
TOKENIZER = (\w[\w\.\-]*@[\w\.\-]*\w)
```

health.conf

以下为 health.conf 的规范和示例文件。

health.conf.spec

```
#   Version 8.2.0
#
# This file sets the default thresholds for Splunk Enterprise's built
# in Health Report.
#
# Feature stanzas contain indicators, and each indicator has two thresholds:
# * Yellow: Indicates something is wrong and should be investigated.
# * Red: Means that the indicator is effectively not working.
#
# There is a health.conf in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name health.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
#
# To learn more about configuration files (including precedence), see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[distributed_health_reporter]

```
disabled = <boolean>
* Whether or not this Splunk platform instance calls connected search peers to
  retrieve health report information.
* A value of 1 disables the distributed health report on this Splunk platform
  instance. When disabled, the instance does not call connected search peers
  to retrieve health report information.
* Default: 0 (enabled)
```

[health_reporter]

```
full_health_log_interval = <number>
* The amount of time, in seconds, that elapses between each 'PeriodicHealthReporter=INFO' log entry.
* Default: 30.

suppress_status_update_ms = <number>
* The minimum amount of time, in milliseconds, that must elapse between an
  indicator's health status changes.
* Changes that occur earlier will be suppressed.
* Default: 300.

latency_tracker_log_interval_sec = <number>
* The amount of time, in seconds, that elapses between each latency tracker log entry.
* Default: 30.

aggregate_ingestion_latency_health = [0|1]
* A value of 0 disables the aggregation feature for ingestion latency health reporter.
* Default: 1 (enabled).

alert.disabled = [0|1]
* A value of 1 disables the alerting feature for health reporter.
* If the value is set to 1, alerting for all features is disabled.
* Default: 0 (enabled)

alert.actions = <string>
* The alert actions that will run when an alert is fired.
```

```
alert.min_duration_sec = <integer>
* The minimum amount of time, in seconds, that the health status color must
  persist within threshold_color before triggering an alert.
* Default: 60.

alert.threshold_color = [yellow|red]
* The health status color that will trigger an alert.
* Default: red.

alert.suppress_period = <integer>[m|s|h|d]
* The minimum amount of time, in [minutes|seconds|hours|days], that must
  elapse between each fired alert.
* Alerts that occur earlier will be sent as a batch after this time period
  elapses.
* Default: 10m
```

[clustering]

```
health_report_period = <number>
* The amount of time, in seconds, that elapses between each Clustering
  health report run.
* Default: 20.

disabled = <boolean>
* Whether or not the clustering feature health check is disabled.
* A value of 1 disables the clustering feature health check.
* Default: 0 (enabled)
```

[tree_view:health_subset]

```
* Defines a tree view for health features.
* Users with 'list_health_subset' capability can view features belonging
  to this tree view.
* Users with 'edit_health_subset' capability can edit thresholds for features
  belonging to this tree view.
```

[feature:]*

```
suppress_status_update_ms = <number>
* The minimum amount of time, in milliseconds, that must elapse between an indicator's
  health status changes.
* Changes that occur earlier will be suppressed.
* Default: 300.

display_name = <string>
* A human readable name for the feature.

alert.disabled = <boolean>
* Whether or not alerting is disabled for this feature.
* A value of 1 disables alerting for this feature.
* If alerting is disabled in the [health_reporter] stanza, alerting for this feature is disabled,
  regardless of the value set here.
* Otherwise, if the value is set to 1, alerting for all indicators is disabled.
* Default: 0 (enabled)

alert.min_duration_sec = <integer>
* The minimum amount of time, in seconds, that the health status color must
  persist within threshold_color before triggering an alert.

alert.threshold_color = [yellow|red]
* The health status color to trigger an alert.
* Default: red.

indicator:<indicator name>:description = <string>
* Description of this indicator to help users to make basic decisions such as:
  Turning indicators on or off
  Adjusting the threshold of an indicator
  Turning on alerting for an indicator

indicator:<indicator name>:<indicator color> = <number>
* There are various indicator names. See your health.conf for the complete list.
* There are two valid colors: yellow and red.
* These settings should not be adjusted lightly. If the numbers are set too
  high, you might inadvertently mask serious errors that the Health Report is
  trying to bring to your attention.

alert:<indicator name>.disabled = [0|1]
* A value of 1 disables alerting for this indicator.
* Default: 0 (enabled)

alert:<indicator name>.min_duration_sec = <integer>
* The minimum amount of time, in seconds, that the health status color must
  persist within threshold_color before triggering an alert.

alert:<indicator name>.threshold_color = [yellow|red]
* The health status color to trigger an alert.

tree_view:health_subset = [enabled | disabled]
* Indicates that this feature belongs to the 'health_subset' tree view.
```

[alert_action:]*

```
disabled = [0|1]
* A value of 1 disables this alert action.
* Default: 0 (enabled)

action.<action parameter> = <string>
* There are various parameters for different alert actions.
* Each value defines one parameter for the alert action.
```

health.conf.example

```
#   Version 8.2.0
#
# This file contains an example health.conf.  Use this file to configure thresholds
# for Splunk Enterprise's built in Health Report.
#
# To use one or more of these configurations, copy the configuration block
# into health.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.

[health_reporter]
# Every 30 seconds a new 'PeriodicHealthReporter=INFO' log entry will be created.
full_health_log_interval = 30
# If an indicator's health status changes before 600 milliseconds elapses,
# the status change will be suppressed.
suppress_status_update_ms = 600
# Alerting for all features is enabled.
# You can disable alerting for each feature by setting 'alert.disabled' to 1.
alert.disabled = 0

# If you don't want to send alerts too frequently, you can define a minimum
# time period that must elapse before another alert is fired. Alerts triggered
# during the suppression period are sent after the period expires as a batch.
# The suppress_period value can be in seconds, minutes, hours, and days, and
# uses the format: 60s, 60m, 60h and 60d.
# Default is 10 minutes.
alert.suppress_period = 30m
```

```
[alert_action:email]
# Enable email alerts for the health report.
# Before you can send an email alert, you must configure the email notification
# settings on the email settings page.
# In the 'Search and Reporting' app home page, click Settings > Server settings
# > Email settings, and specify values for the settings.
# After you configure email settings, click Settings > Alert actions.
# Make sure that the 'Send email' option is enabled.
disabled = 0

# Define recipients when an email alert is triggered.
# You can define 'to', 'cc', and 'bcc' recipients.
# For multiple recipients in a list, separate email addresses with commas.
# If there is no recipient for a certain recipient type (e.g. bcc), leave the value blank.
action.to = admin_1@testcorp.example, admin_2@testcorp.example
action.cc = admin_3@testcorp.example, admin_4@testcorp.example
action.bcc =

[alert_action:pagerduty]
# Enable Pager Duty alerts for the health report.
# Before you can send an alert to PagerDuty, you must configure some settings
# on both the PagerDuty side and the Splunk Enterprise side.
# In PagerDuty, you must add a service to save your new integration.
# From the Integrations tab of the created service, copy the Integration Key
# string to the 'action.integration_url_override' below.
# On the Splunk side, you must install the PagerDuty Incidents app from
# Splunkbase.
# After you install the app, in Splunk Web, click Settings > Alert actions.
# Make sure that the PagerDuty app is enabled.
disabled = 0
action.integration_url_override = 123456789012345678901234567890ab

[alert_action:mobile]
# Enable Splunk Mobile alerts for the health report.
# You need to configure the 'alert_recipients' under this stanza in order to
# send health report alerts to the Splunk Mobile app on your phone.
#
# Steps to setup the health report mobile alert:
# * Download the Splunk Mobile App on your phone and open the app.
# * Download the Cloud Gateway App from Splunkbase to your splunk instance.
# * In Splunk Web, click Settings > Alert actions and make sure the Cloud
#   Gateway App is enabled.
# * In Splunk Web, click Cloud Gateway App > Configure and enable Splunk
#   Mobile.
# * In Splunk Web, click Cloud Gateway App > Register and copy the activation
#   code displayed in the Splunk Mobile App to register your device(phone).
# * In health.conf configure 'alert_recipients' under the [alert_action:mobile]
#   stanza, e.g. action.alert_recipients = admin
#
# Details of how to install and use the Cloud Gateway App please refer to
# https://docs.splunk.com/Documentation/Gateway
disabled = 0
action.alert_recipients = admin

[alert_action:victorops]
# Enable VictorOps alerts for the health report.
# Before you can send an alert to VictorOps, you must configure some settings
# on both the VictorOps side and the Splunk Enterprise side.
# In VictorOps, you must create an API key and can optionally create a routing key.
# On the Splunk side, you must install the VictorOps App from Splunkbase.
# After you install the app, in Splunk Web, click Settings > Alert actions.
# Make sure that the VictorOps app is enabled and the API key is properly configured.
disabled = 0
# alert message type in VictorOps.
# Valid alert message types in VictorOps:
#  * CRITICAL - Triggers an incident.
#  * WARNING - May trigger an incident, depending on your settings in VictorOps.
#  * ACKNOWLEDGEMENT - Acknowledges an incident. This value is unlikely to be useful.
#  * INFO - Creates a timeline event, but does not trigger an incident.
#  * RECOVERY - Resolves an incident. This value is unlikely to be useful.
action.message_type = CRITICAL
# ID of the incident in VictorOps.
* Optional.
action.entity_id =
# Use this field to choose one of the API keys configured in passwords.conf
# under victorops_app.
# Leave this field empty if you want to use the default API key.
* Optional.
action.record_id =
# Use this field to overwrite the default routing key.
* Optional.
action.routing_key_override =

[clustering]
# Clustering health report will run in every 20 seconds.
health_report_period = 20
# Enable the clustering feature health check.
disabled = 0

[feature:s2s_autolb]
# If more than 20% of forwarding destinations have failed, health status changes to yellow.
indicator:s2s_connections:yellow = 20
# If more than 70% of forwarding destinations have failed, health status changes to red.
indicator:s2s_connections:red = 70
# Alerting for all indicators is disabled.
alert.disabled = 1

[feature:batchreader]
# Enable alerts for feature:batchreader. If there is no 'alert.disabled' value
# specified in a feature stanza, then the alert is enabled for the feature by
# default.
# You can also enable/disable alerts at the indicator level, using the setting:
# 'alert:<indicator name>.disabled'.
alert.disabled = 0

# You can define which color triggers an alert.
# If the value is yellow, both yellow and red trigger an alert.
# If the value is red, only red triggers an alert.
# Default value is red.
# You can also define the threshold_color for each indicator using the setting:
# 'alert:<indicator name>.threshold_color'.
# Indicator level setting overrides the feature level threshold_color setting.
alert.threshold_color = red

# You can define the duration that an unhealthy status persists before the alert fires.
# Default value is 60 seconds.
# You can also define the min_duration_sec for each indicator using the setting:
# 'alert:<indicator name>.min_duration_sec'.
# Indicator level setting overrides feature level min_duration_sec setting.
alert.min_duration_sec = 30
```

indexes.conf

以下为 indexes.conf 的规范和示例文件。

indexes.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains all possible options for an indexes.conf file.  Use
# this file to configure Splunk's indexes and their properties.
#
# Each stanza controls different search commands settings.
#
# There is a indexes.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name indexes.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see indexes.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# CAUTION: You can drastically affect your Splunk installation by changing
# these settings. Consult technical support
# (http://www.splunk.com/page/submit_issue) if you are not sure how to
# configure this file.
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top
#     of the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file wins.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

sync = <nonnegative integer>
* The index processor syncs events every 'sync' number of events.
* Set to 0 to disable.
* Highest legal value is 32767.
* Default: 0

defaultDatabase = <index name>
* If an index is not specified during search, Splunk software
  searches the default index.
* The specified index displays as the default in Splunk Manager settings.
* Default: main

bucketMerging = <boolean>
* This setting is supported only when 'storageType' is "local".
* Set to true to enable bucket merging service on all indexes
* You can override this value on a per-index basis.
* Default: false

bucketMerge.minMergeSizeMB = <unsigned integer>
* This setting is supported only when 'storageType' is "local".
* Minimum cumulative bucket sizes to merge.
* You can override this value on a per-index basis.
* Default: 750

bucketMerge.maxMergeSizeMB = <unsigned integer>
* This setting is supported only when 'storageType' is "local".
* Maximum cumulative bucket sizes to merge.
* You can override this value on a per-index basis.
* Default: 1000

bucketMerge.maxMergeTimeSpanSecs = <unsigned integer>
* This setting is supported only when 'storageType' is "local".
* Maximum allowed time span, in seconds, between buckets about to be merged.
* You can override this value on a per-index basis.
* Default: 7776000 (90 days)

queryLanguageDefinition = <path to file>
* DO NOT EDIT THIS SETTING. SERIOUSLY.
* The path to the search language definition file.
* Default: $SPLUNK_HOME/etc/searchLanguage.xml.

lastChanceIndex = <index name>
* An index that receives events that are otherwise not associated
  with a valid index.
* If you do not specify a valid index with this setting, such events are
  dropped entirely.
* Routes the following kinds of events to the specified index:
  * events with a non-existent index specified at an input layer, like an
    invalid "index" setting in inputs.conf
  * events with a non-existent index computed at index-time, like an invalid
    _MetaData:Index value set from a "FORMAT" setting in transforms.conf
* You must set 'lastChanceIndex' to an existing, enabled index.
  Splunk software cannot start otherwise.
* If set to "default", then the default index specified by the
  'defaultDatabase' setting is used as a last chance index.
* Default: empty string

malformedEventIndex = <index name>
* An index to receive malformed events.
* If you do not specify a valid index with this setting, or Splunk software
  cannot use the index specified in the 'defaultDatabase' setting,
  such events are dropped entirely.
* Routes the following kinds of events to the specified index:
    * events destined for read-only indexes
    * log events destined for datatype=metric indexes
    * log events with invalid raw data values, like all-whitespace raw
    * metric events destined for datatype=event indexes
    * metric events with invalid metric values, like non-numeric values
    * metric events lacking required attributes, like metric name
* Malformed events can be modified in order to make them suitable for
  indexing, as well as to aid in debugging.
* A high volume of malformed events can affect search performance against
  the specified index; for example, malformed metric events can lead to an
  excessive number of Strings.data entries
* <index name> must refer to an existing, enabled index. Splunk software
  does not start if this is not the case.
* If set to "default", the indexer places malformed events in the index
  specified by the 'defaultDatabase' setting
* Default: empty string

memPoolMB = <positive integer>|auto
* Determines how much memory is given to the indexer memory pool. This
  restricts the number of outstanding events in the indexer at any given
  time.
* Must be greater than 0; maximum value is 1048576 (which corresponds to 1 TB)
* Setting this too high can cause splunkd memory usage to increase
  significantly.
* Setting this too low can degrade splunkd indexing performance.
* Setting this to "auto" or an invalid value causes splunkd to autotune
  the value as follows:
    * System Memory Available less than ... | 'memPoolMB'
                   1 GB                     |    64  MB
                   2 GB                     |    128 MB
                   8 GB                     |    128 MB
                   8 GB or higher           |    512 MB
* Only set this value if you are an expert user or have been advised to by
  Splunk Support.
```

```
* CAUTION: CARELESSNESS IN SETTING THIS CAN LEAD TO LOSS OF JOB.
* Default: auto

indexThreads = <nonnegative integer>|auto
* Determines the number of threads to use for indexing.
* Must be at least 1 and no more than 16.
* This value should not be set higher than the number of processor cores in
  the machine.
* If splunkd is also doing parsing and aggregation, the number should be set
  lower than the total number of processors minus two.
* Setting this to "auto" or an invalid value will cause Splunk to autotune
  this setting.
* Only set this value if you are an expert user or have been advised to by
  Splunk Support.
* CAUTION: CARELESSNESS IN SETTING THIS CAN LEAD TO LOSS OF JOB.
* Default: auto

rtRouterThreads = 0|1
* Set to "1" if you expect to use non-indexed real time searches regularly. Index
  throughput drops rapidly if there are a handful of these running concurrently
  on the system.
* If you are not sure what "indexed vs non-indexed" real time searches are, see
  README of indexed_realtime* settings in limits.conf
* NOTE: This is not a boolean value. Acceptable values are "0" and "1" ONLY.
  At the present time, you can only create a single real-time thread per
  pipeline set.

rtRouterQueueSize = <positive integer>
* This setting is only valid if 'rtRouterThreads' != 0
* This queue sits between the indexer pipeline set thread (producer) and the
  'rtRouterThread'
* Changing the size of this queue can impact real-time search performance.
* Default: 10000

selfStorageThreads = <positive integer>
* Specifies the number of threads used to transfer data to customer-owned remote
  storage.
* The threads are created on demand when any index is configured with
  self storage options.
* Default: 2

assureUTF8 = <boolean>
* Verifies that all data retrieved from the index is proper by validating
  all the byte strings.
  * This does not ensure all data will be emitted, but can be a workaround
    if an index is corrupted in such a way that the text inside it is no
    longer valid utf8.
* Will degrade indexing performance when enabled (set to true).
* Can only be set globally, by specifying in the [default] stanza.
* Default: false

enableRealtimeSearch = <boolean>
* Enables real-time searches.
* Default: true

suppressBannerList = <comma-separated list of strings>
* suppresses index missing warning banner messages for specified indexes
* Default: empty string

maxRunningProcessGroups = <positive integer>
* splunkd runs helper child processes like "splunk-optimize",
  "recover-metadata", etc. This setting limits how many child processes
  can run at any given time.
* This maximum applies to all of splunkd, not per index. If you have N
  indexes, there will be at most 'maxRunningProcessGroups' child processes,
  not N * 'maxRunningProcessGroups' processes.
* Must maintain maxRunningProcessGroupsLowPriority < maxRunningProcessGroups
* This is an advanced setting; do NOT set unless instructed by Splunk
  Support.
```

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* Highest legal value is 4294967295.
* Default: 8

maxRunningProcessGroupsLowPriority = <positive integer>
* Of the 'maxRunningProcessGroups' helper child processes, at most
  'maxRunningProcessGroupsLowPriority' may be low-priority
  (for example, "fsck") ones.
* This maximum applies to all of splunkd, not per index. If you have N
  indexes, there will be at most 'maxRunningProcessGroupsLowPriority'
  low-priority child processes, not N * 'maxRunningProcessGroupsLowPriority'
  processes.
* There must always be fewer 'maxRunningProcessGroupsLowPriority' child
  processes than there are 'maxRunningProcessGroups' child processes.
* This is an advanced setting; do NOT set unless instructed by Splunk
  Support.
* Highest legal value is 4294967295.
* Default: 1

bucketRebuildMemoryHint = <positive integer>[KB|MB|GB]|auto
* A suggestion for the bucket rebuild process for the size, in bytes,
  of the tsidx file it will try to build.
* Larger files use more memory in a rebuild, but rebuilds fail if there is
  not enough memory.
* Smaller files make the rebuild take longer during the final optimize step.
* NOTE: This value is not a hard limit on either rebuild memory usage or
  tsidx size.
* This is an advanced setting, do NOT set this unless instructed by Splunk
  Support.
* If set to "auto", the bucket rebuild process tunes the setting based on
  the amount of physical RAM on the machine:
  *  less than 2GB RAM = 67108864 (64MB) tsidx
  *  2GB to 8GB RAM = 134217728 (128MB) tsidx
  *  more than 8GB RAM = 268435456 (256MB) tsidx
* If not set to "auto", then you must set this setting between 16MB and 1GB.
* A value can be specified using a size suffix: "16777216" or "16MB" are
  equivalent.
* Inappropriate use of this setting causes splunkd to not start if
  rebuild is required.
* Highest legal value (in bytes) is 4294967295.
* Default: auto

inPlaceUpdates = <boolean>
* Whether or not splunkd writes metadata updates to .data files in place.
* Intended for advanced debugging of metadata issues.
* If set to "true", metadata updates are written to the .data files directly.
* If set to "false", metadata updates are written to a temporary file and
  then moved into place.
* Configuring this setting to "false" (to use a temporary file) affects
  indexing performance, particularly with large numbers of hosts, sources,
  or sourcetypes (~1 million, across all indexes.)
* This is an advanced setting; do NOT set unless instructed by Splunk
  Support
* Default: true

serviceInactiveIndexesPeriod = <positive integer>
* How frequently, in seconds, inactive indexes are serviced.
* An inactive index is an index that has not been written to for a period
  greater than the value of 'serviceMetaPeriod'.  The inactive state is not
  affected by whether the index is being read from.
* The highest legal value is 4294967295.
* Default: 60

serviceOnlyAsNeeded = <boolean>
* DEPRECATED; use 'serviceInactiveIndexesPeriod' instead.
* Causes index service (housekeeping tasks) overhead to be incurred only
  after index activity.
* Indexer module problems might be easier to diagnose when this optimization
  is disabled (set to false).
* Default: true
```

```
serviceSubtaskTimingPeriod = <positive integer>
* Subtasks of indexer service task will be timed on every Nth execution,
  where N = value of this setting, in seconds.
* Smaller values give greater accuracy; larger values lessen timer
  overhead.
* Timer measurements are found in metrics.log, marked
  "group=subtask_seconds, task=indexer_service"
* Highest legal value is 4294967295
* Configure a value for this setting that divides evenly into the value for
  the 'rotatePeriodInSecs' setting where possible.
* Default: 30

processTrackerServiceInterval = <nonnegative integer>
* How often, in seconds, the indexer checks the status of the child OS
  processes it has launched to see if it can launch new processes for queued
  requests.
* If set to 0, the indexer checks child process status every second.
* Highest legal value is 4294967295.
* Default: 15

maxBucketSizeCacheEntries = <nonnegative integer>
* This value is no longer needed. Its value is ignored.

tsidxStatsHomePath = <string>
* An absolute path that specifies where the indexer creates namespace data
  with the 'tscollect' command.
* If the directory does not exist, the indexer attempts to create it.
* Optional.
* NOTE: The "$SPLUNK_DB" directory must be writable.
* Default: $SPLUNK_DB/tsidxstats

tsidxWritingLevel = [1|2|3|4]
* Enables various performance and space-saving improvements for tsidx files.
* Tsidx files written with a higher tsidxWritingLevel setting have limited backward
  compatibility when searched with lower versions of Splunk Enterprise.
* Setting tsidxWritingLevel globally is recommended. It can also be set per-index.
* For deployments that have multi-site index clustering, change the setting AFTER
  all your indexers in the cluster have been upgraded to the latest release.
* Default: 2

hotBucketTimeRefreshInterval = <positive integer>
* How often each index refreshes the available hot bucket times
  used by the 'indexes' REST endpoint.
* A refresh occurs every N times service is performed for each index.
  * For busy indexes, this is a multiple of seconds.
  * For idle indexes, this is a multiple of the second-long-periods in
    which data is received.
* This setting is only intended to relax the frequency of these refreshes in
  the unexpected case that it adversely affects performance in unusual
  production scenarios.
* This time is tracked on a per-index basis, and thus can be adjusted
  on a per-index basis if needed.
* If you want the index information to be refreshed with
  every service (and accept minor performance overhead), set to 1.
* Default: 10 (services)

fileSystemExecutorWorkers = <positive iinteger>
* Determines the number of threads to use for file system io operations.
* This maximum applies to all of splunkd, not per index. If you have N
  indexes, there will be at most 'fileSystemExecutorWorkers' workers,
  not N * 'fileSystemExecutorWorkers' workers.
* This is an advanced setting; do NOT set unless instructed by Splunk
  Support.
* Highest legal value is 4294967295.
* Default: 5

hotBucketStreaming.extraBucketBuildingCmdlineArgs = <string>
* Currently not supported. This setting is related to a feature that is
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  still under development.
* Default: empty
```

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# These options can be set under an [<index>] entry.
#
# Index names must consist of only numbers, lowercase letters, underscores,
# and hyphens. They cannot begin with an underscore or hyphen, or contain
# the word "kvstore".
#**************************************************************************

disabled = <boolean>
* Toggles your index entry off and on.
* Set to "true" to disable an index.
* CAUTION: Do not set this setting to "true" on remote storage enabled indexes.
* Default: false

deleted = true
* If present, means that this index has been marked for deletion: if splunkd
  is running, deletion is in progress; if splunkd is stopped, deletion
  re-commences on startup.
* Do NOT manually set, clear, or modify the value of this setting.
* CAUTION: Seriously: LEAVE THIS SETTING ALONE.
* No default.

homePath = <string>
* An absolute path that contains the hot and warm buckets for the index.
* Best practice is to specify the path with the following syntax:
     homePath = $SPLUNK_DB/$_index_name/db
  At runtime, splunkd expands "$_index_name" to the name of the index. For example,
  if the index name is "newindex", homePath becomes
     "$SPLUNK_DB/newindex/db".
* Splunkd keeps a file handle open for warmdbs at all times.
* Can contain a volume reference (see volume section below) in place of $SPLUNK_DB.
* CAUTION: The parent path "$SPLUNK_DB/$_index_name/" must be writable.
* Required. Splunkd does not start if an index lacks a valid 'homePath'.
* You must restart splunkd after changing this setting for the changes to take effect.
* Avoid the use of other environment variables in index paths, aside from the possible
  exception of SPLUNK_DB.
  * As an exception, SPLUNK_DB is explicitly managed by the software,
    so most possible downsides here do not exist.
  * Environment variables can be different from launch to launch of the
    software, causing severe problems with management of indexed data,
    including:
    * Data in the prior location is not searchable.
    * The indexer might not be able to write to the new location, causing outages
      or data loss.
    * Writing to a new, unexpected location could lead to disk space exhaustion
      causing additional operational problems.
    * Recovery from such a scenario requires manual intervention and bucket
      renaming, especially difficult in an index cluster environment.
    * In all circumstances, Splunk Diag, the diagnostic tool that Splunk Support
      uses, has no way to determine the correct values for the environment
      variables, and cannot reliably operate. You might need to manually acquire
      information about your index buckets in troubleshooting scenarios.
  * Volumes provide a more appropriate way to control the
    storage location for indexes.
* No default.

coldPath = <string>
* An absolute path that contains the colddbs for the index.
* Best practice is to specify the path with the following syntax:
     coldPath = $SPLUNK_DB/$_index_name/colddb
  At runtime, splunkd expands "$_index_name" to the name of the index. For example,
  if the index name is "newindex", 'coldPath'
  becomes "$SPLUNK_DB/newindex/colddb".
* Cold databases are opened as needed when searching.
* Can contain a volume reference (see volume section below) in place of $SPLUNK_DB.
* Path must be writable.
* Required. Splunkd does not start if an index lacks a valid 'coldPath'.
* You must restart splunkd after changing this setting for the changes to
  take effect. Reloading the index configuration does not suffice.
* Avoid using environment variables in index paths, aside from the
  possible exception of $SPLUNK_DB. See 'homePath' for additional
  information as to why.
* Remote-storage-enabled indexes do not cycle buckets from homePath to coldPath.
  However, if buckets already reside in 'coldPath' for a
  non-remote-storage-enabled index, and that index is later enabled for remote
  storage, those buckets will be searchable and will have their life cycle
  managed.

thawedPath = <string>
* An absolute path that contains the thawed (resurrected) databases for the
  index.
* CANNOT contain a volume reference.
* Path must be writable.
* Required. Splunkd does not start if an index lacks a valid thawedPath.
* You must restart splunkd after changing this setting for the changes to
  take effect. Reloading the index configuration does not suffice.
* Avoid the use of environment variables in index paths, aside from the
  exception of SPLUNK_DB. See 'homePath' for additional information as
  to why.

bloomHomePath = <string>
* The location where the bloomfilter files for the index are stored.
* If specified, 'bloomHomePath' must be defined in terms of a volume definition
  (see volume section below).
* If 'bloomHomePath' is not specified, the indexer stores bloomfilter files
  for the index inline, inside index bucket directories.
* Path must be writable.
* You must restart splunkd after changing this setting for the
  changes to take effect. Reloading the index configuration does
  not suffice.
* Avoid the use of environment variables in index paths, aside from the
  exception of SPLUNK_DB.  See 'homePath' for additional information
  as to why.
* CAUTION: Do not set this setting on indexes that have been
  configured to use remote storage with the "remotePath" setting.

createBloomfilter = <boolean>
* Whether or not to create bloomfilter files for the index.
* If set to "true", the indexer creates bloomfilter files.
* If set to "false", the indexer does not create bloomfilter files.
* You must set to "true" for remote storage enabled indexes.
* CAUTION: Do not set this setting to "false" on indexes that have been
  configured to use remote storage with the "remotePath" setting.
* Default: true

summaryHomePath = <string>
* An absolute path where transparent summarization results for data in this
  index should be stored.
* This value must be different for each index and can be on any disk drive.
* Best practice is to specify the path with the following syntax:
     summaryHomePath = $SPLUNK_DB/$_index_name/summary
  At runtime, splunkd expands "$_index_name" to the name of the index.
  For example, if the index name is "newindex", summaryHomePath becomes
  "$SPLUNK_DB/newindex/summary".
* Can contain a volume reference (see volume section below) in place of $SPLUNK_DB.
* Volume reference must be used if you want to retain data based on data size.
* Path must be writable.
* If not specified, splunkd creates a directory 'summary' in the same
  location as 'homePath'.
  * For example, if 'homePath' is "/opt/splunk/var/lib/splunk/index1/db",
    then 'summaryHomePath' must be "/opt/splunk/var/lib/splunk/index1/summary".
* The parent path must be writable.
* You must not set this setting for remote storage enabled indexes.
* You must restart splunkd after changing this setting for the
  changes to take effect. Reloading the index configuration does
  not suffice.
* Avoid the use of environment variables in index paths, aside from the
  exception of SPLUNK_DB. See 'homePath' for additional
  information as to why.
* No default.

tstatsHomePath = <string>
* Location where data model acceleration TSIDX data for this index should be stored.
* Required.
* MUST be defined in terms of a volume definition (see volume section below)
* Path must be writable.
* You must not set this setting for remote storage enabled indexes.
* You must restart splunkd after changing this setting for the
  changes to take effect. Reloading the index configuration does
  not suffice.
* Default: volume:_splunk_summaries/$_index_name/datamodel_summary,
  where "$_index_name" is runtime-expanded to the name of the index

remotePath = <root path for remote volume, prefixed by a URI-like scheme>
* Optional.
* Presence of this setting means that this index uses remote storage, instead
  of the local file system, as the main repository for bucket storage. The
  index processor works with a cache manager to fetch buckets locally, as
  necessary, for searching and to evict them from local storage as space fills
  up and they are no longer needed for searching.
* This setting must be defined in terms of a storageType=remote volume
  definition. See the volume section below.
* The path portion that follows the volume reference is relative to the path
  specified for the volume. For example, if the path for a volume "v1" is
  "s3://bucket/path" and 'remotePath' is "volume:v1/idx1", then the fully
  qualified path is "s3://bucket/path/idx1". The rules for resolving the
  relative path with the absolute path specified in the volume can vary
  depending on the underlying storage type.
* If 'remotePath' is specified, the 'coldPath' and 'thawedPath' settings are
  ignored. However, you must still specify them.

maxBloomBackfillBucketAge = <nonnegative integer>[smhd]|infinite
* If a (warm or cold) bucket with no bloomfilter is older than this,
  splunkd does not create a bloomfilter for that bucket.
* When set to 0, splunkd never backfills bloomfilters.
* When set to "infinite", splunkd always backfills bloomfilters.
* NOTE: If 'createBloomfilter' is set to "false", bloomfilters are never
  backfilled regardless of the value of this setting.
* The highest legal value in computed seconds is 2 billion, or 2000000000, which
  is approximately 68 years.
* Default: 30d

hotlist_recency_secs = <unsigned integer>
* When a bucket is older than this value, it becomes eligible for eviction.
  Buckets younger than this value are evicted only if there are no older
  buckets eligible for eviction.
* Default: The global setting in the server.conf file [cachemanager] stanza

hotlist_bloom_filter_recency_hours = <unsigned integer>
* When a bucket's non-journal and non-tsidx files (such as bloomfilter files)
  are older than this value, those files become eligible for eviction. Bloomfilter
  and associated files younger than this value are evicted only if there are
  no older files eligible for eviction.
* Default: The global setting in the server.conf file [cachemanager] stanza

enableOnlineBucketRepair = <boolean>
* Controls asynchronous "online fsck" bucket repair, which runs concurrently
  with splunkd.
* When enabled, you do not have to wait until buckets are repaired, to start
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  splunkd.
* When enabled, you might observe a slight degradation in performance.
* You must set to "true" for remote storage enabled indexes.
* Default: true

enableDataIntegrityControl = <boolean>
* Whether or not splunkd computes hashes on rawdata slices and stores the hashes
  for future data integrity checks.
* If set to "true", hashes are computed on the rawdata slices.
* If set to "false", no hashes are computed on the rawdata slices.
* Default: false

maxWarmDBCount = <nonnegative integer>
* The maximum number of warm buckets.
* Warm buckets are located in the 'homePath' for the index.
* If set to zero, splunkd does not retain any warm buckets
  It rolls the buckets to cold as soon as it is able.
* Splunkd ignores this setting on remote storage enabled indexes.
* Highest legal value is 4294967295.
* Default: 300

maxTotalDataSizeMB = <nonnegative integer>
* The maximum size of an index, in megabytes.
* If an index grows larger than the maximum size, splunkd freezes the oldest
  data in the index.
* This setting applies only to hot, warm, and cold buckets. It does
  not apply to thawed buckets.
* CAUTION: This setting takes precedence over other settings like
  'frozenTimePeriodInSecs' with regard to data retention. If the index
  grows beyond 'maxTotalDataSizeMB' megabytes before
  'frozenTimePeriodInSecs' seconds have passed, data could prematurely
  roll to frozen. As the default policy for rolling data to frozen is
  deletion, unintended data loss could occur.
* Splunkd ignores this setting on remote storage enabled indexes.
* Highest legal value is 4294967295
* Default: 500000

maxGlobalRawDataSizeMB = <nonnegative integer>
* The maximum amount of cumulative raw data (in MB) allowed in a remote
  storage-enabled index.
* This setting is available for both standalone indexers and indexer clusters.
  In the case of indexer clusters, the raw data size is calculated as the total
  amount of raw data ingested for the index, across all peer nodes.
* When the amount of uncompressed raw data in an index exceeds the value of this
  setting, the bucket containing the oldest data is frozen.
* For example, assume that the setting is set to 500 and the indexer cluster
  has already ingested 400MB of raw data into the index, across all peer nodes.
  If the cluster ingests an additional amount of raw data greater than 100MB in
  size, the cluster freezes the oldest buckets, until the size of raw data
  reduces to less than or equal to 500MB.
* This value applies to warm and cold buckets. It does not
  apply to hot or thawed buckets.
* The maximum allowable value is 4294967295.
* Default: 0 (no limit to the amount of raw data in an index)

maxGlobalDataSizeMB = <nonnegative integer>
* The maximum size, in megabytes, for all warm buckets in a SmartStore
  index on a cluster.
* This setting includes the sum of the size of all buckets that reside
  on remote storage, along with any buckets that have recently rolled
  from hot to warm on a peer node and are awaiting upload to remote storage.
* If the total size of the warm buckets in an index exceeds
  'maxGlobalDataSizeMB', the oldest bucket in the index is frozen.
  * For example, assume that 'maxGlobalDataSizeMB' is set to 5000 for
    an index, and the index's warm buckets occupy 4800 MB. If a 750 MB
    hot bucket then rolls to warm, the index size now exceeds
    'maxGlobalDataSizeMB', which triggers bucket freezing. The cluster
    freezes the oldest buckets on the index, until the total warm bucket
    size falls below 'maxGlobalDataSizeMB'.
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* The size calculation for this setting applies on a per-index basis.
* The calculation applies across all peers in the cluster.
* The calculation includes only one copy of each bucket. If a duplicate
  copy of a bucket exists on a peer node, the size calculation does
  not include it.
  * For example, if the bucket exists on both remote storage and on a peer
    node's local cache, the calculation ignores the copy on local cache.
* The calculation includes only the size of the buckets themselves.
  It does not include the size of any associated files, such as report
  acceleration or data model acceleration summaries.
* The highest legal value is 4294967295 (4.2 petabytes.)
* Default: 0 (No limit to the space that the warm buckets on an index can occupy.)

rotatePeriodInSecs = <positive integer>
* Controls the service period (in seconds): how often splunkd performs
  certain housekeeping tasks. Among these tasks are:
  * Check if a new hot DB needs to be created.
  * Check if there are any cold DBs that should be frozen.
  * Check whether buckets need to be moved out of hot and cold DBs, due to
    respective size constraints (i.e., homePath.maxDataSizeMB and
    coldPath.maxDataSizeMB)
* This value becomes the default value of the 'rotatePeriodInSecs' setting
  for all volumes (see 'rotatePeriodInSecs' in the Volumes section)
* The highest legal value is 4294967295.
* Default: 60

frozenTimePeriodInSecs = <nonnegative integer>
* The number of seconds after which indexed data rolls to frozen.
* If you do not specify a 'coldToFrozenScript', data is deleted when rolled to
  frozen.
* NOTE: Every event in a bucket must be older than 'frozenTimePeriodInSecs'
  seconds before the bucket rolls to frozen.
* The highest legal value is 4294967295.
* Default: 188697600 (6 years)

warmToColdScript = <script path>
* Specifies a script to run when moving data from warm to cold buckets.
* This setting is supported for backwards compatibility with versions
  older than 4.0. Migrating data across filesystems is now handled natively
  by splunkd.
* If you specify a script here, the script becomes responsible for moving
  the event data, and Splunk-native data migration is not used.
* The script must accept two arguments:
  * First: the warm directory (bucket) to be rolled to cold.
  * Second: the destination in the cold path.
* If the script you specify is a Python script, it uses the default system-wide
  Python interpreter. You cannot override this configuration with the
  'python.version' setting.
* Searches and other activities are paused while the script is running.
* Contact Splunk Support (http://www.splunk.com/page/submit_issue) if you
  need help configuring this setting.
* The script must be in $SPLUNK_HOME/bin or a subdirectory thereof.
* Splunkd ignores this setting for remote storage enabled indexes.
* Default: empty string

coldToFrozenScript = <path to script interpreter><path to script>
* Specifies a script to run when data is to leave the splunk index system.
  * Essentially, this implements any archival tasks before the data is
    deleted out of its default location.
* Add "$DIR" (including quotes) to this setting on Windows (see below
  for details).
* Script Requirements:
  * The script must accept at least one argument: An absolute path to the bucket directory
    that is to be archived.
  * In the case of metrics indexes, the script must also accept the flag "--search-files-required",
    to prevent the script from archiving empty rawdata files. For more details, see the entry for the
    "metric.stubOutRawdataJournal" setting.
  * Your script should work reliably.
    * If your script returns success (0), Splunk completes deleting
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   the directory from the managed index location.
  * If your script return failure (non-zero), Splunk leaves the bucket
   in the index, and tries calling your script again several minutes later.
  * If your script continues to return failure, this will eventually cause
   the index to grow to maximum configured size, or fill the disk.
 * Your script should complete in a reasonable amount of time.
  * If the script stalls indefinitely, it will occupy slots.
  * This script should not run for long as it would occupy
   resources which will affect indexing.
* If the string $DIR is present in this setting, it will be expanded to the
 absolute path to the directory.
* If $DIR is not present, the directory will be added to the end of the
 invocation line of the script.
 * This is important for Windows.
  * For historical reasons, the entire string is broken up by
   shell-pattern expansion rules.
  * Since Windows paths frequently include spaces, and the Windows shell
   breaks on space, the quotes are needed for the script to understand
   the directory.
* If your script can be run directly on your platform, you can specify just
 the script.
 * Examples of this are:
  * .bat and .cmd files on Windows
  * scripts set executable on UNIX with a #! shebang line pointing to a
   valid interpreter.
* You can also specify an explicit path to an interpreter and the script.
  * Example:  /path/to/my/installation/of/python.exe path/to/my/script.py
* Splunk software ships with an example archiving script in that you SHOULD
 NOT USE $SPLUNK_HOME/bin called coldToFrozenExample.py
 * DO NOT USE the example for production use, because:
  * 1 - It will be overwritten on upgrade.
  * 2 - You should be implementing whatever requirements you need in a
     script of your creation. If you have no such requirements, use
     'coldToFrozenDir'
* Example configuration:
 * If you create a script in bin/ called our_archival_script.py, you could use:
  UNIX:
    coldToFrozenScript = "$SPLUNK_HOME/bin/python" \
     "$SPLUNK_HOME/bin/our_archival_script.py"
  Windows:
    coldToFrozenScript = "$SPLUNK_HOME/bin/python" \
     "$SPLUNK_HOME/bin/our_archival_script.py" "$DIR"
* The example script handles data created by different versions of Splunk
 differently. Specifically, data from before version 4.2 and after version 4.2
 are handled differently. See "Freezing and Thawing" below:
* The script must be in $SPLUNK_HOME/bin or a subdirectory thereof.
* No default.

python.version = {default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* This setting is valid for 'coldToFrozenScript' only when the value starts
 with the canonical path to the Python interpreter, in other words,
 $SPLUNK_HOME/bin/python. If you use any other path, this setting is ignored.
* Set to either "default" or "python" to use the system-wide default Python
 version.
* Optional.
* Default: Not set; uses the system-wide Python version.

coldToFrozenDir = <path to frozen archive>
* An alternative to a 'coldToFrozen' script - this setting lets you
 specify a destination path for the frozen archive.
* Splunk software automatically puts frozen buckets in this directory
* For information on how buckets created by different versions are
 handled, see "Freezing and Thawing" below.
* If both 'coldToFrozenDir' and 'coldToFrozenScript' are specified,
 'coldToFrozenDir' takes precedence
* You must restart splunkd after changing this setting. Reloading the
 configuration does not suffice.
* May NOT contain a volume reference.
```

```
# Freezing and Thawing (this should move to web docs
4.2 and later data:
  * To archive: remove files except for the rawdata directory, since rawdata
    contains all the facts in the bucket.
    CAUTION: if the bucket has a stubbed-out (empty) rawdata file, then
    all of the bucket files, not just the rawdata directory must be archived
    to allow for data recovery. To determine whether the rawdata file is stubbed-out,
    check whether the setting "metric.stubOutRawdataJournal" is set to "true"
    for the index that the bucket belongs to. In addition, a stubbed-out rawdata
    file has a very small size (around 16KB) compared with the size of a normal
    rawdata file.
  * To restore: run splunk rebuild <bucket_dir> on the archived bucket, then
    atomically move the bucket to thawed for that index
4.1 and earlier data:
  * To archive: gzip the .tsidx files, as they are highly compressible but
    cannot be recreated
  * To restore: unpack the tsidx files within the bucket, then atomically
    move the bucket to thawed for that index

compressRawdata = true|false
* This setting is ignored. The splunkd process always compresses raw data.

maxConcurrentOptimizes = <nonnegative integer>
* The number of concurrent optimize processes that can run against a hot
  bucket.
* This number should be increased if:
  * There are always many small tsidx files in the hot bucket.
  * After rolling, there are many tsidx files in warm or cold buckets.
* You must restart splunkd after changing this setting. Reloading the
  configuration does not suffice.
* The highest legal value is 4294967295.
* Default: 6

maxDataSize = <positive integer>|auto|auto_high_volume
* The maximum size, in megabytes, that a hot bucket can reach before splunkd
  triggers a roll to warm.
* Specifying "auto" or "auto_high_volume" will cause Splunk to autotune this
  setting (recommended).
* You should use "auto_high_volume" for high-volume indexes (such as the
  main index); otherwise, use "auto". A "high volume index" would typically
  be considered one that gets over 10GB of data per day.
* "auto_high_volume" sets the size to 10GB on 64-bit, and 1GB on 32-bit
  systems.
* Although the maximum value you can set this is 1048576 MB, which
  corresponds to 1 TB, a reasonable number ranges anywhere from 100 to
  50000. Before proceeding with any higher value, please seek approval of
  Splunk Support.
* If you specify an invalid number or string, maxDataSize will be auto
  tuned.
* NOTE: The maximum size of your warm buckets might slightly exceed
  'maxDataSize', due to post-processing and timing issues with the rolling
  policy.
* For remote storage enabled indexes, consider setting this value to "auto"
  (750MB) or lower.
* Default: "auto" (sets the size to 750 megabytes)

rawFileSizeBytes = <positive integer>
* Deprecated in version 4.2 and later. Splunkd ignores this value.
* Rawdata chunks are no longer stored in individual files.
* If you really need to optimize the new rawdata chunks (highly unlikely),
  configure the 'rawChunkSizeBytes' setting.

rawChunkSizeBytes = <positive integer>
* Target uncompressed size, in bytes, for individual raw slices in the rawdata
  journal of the index.
* This is an advanced setting. Do not change it unless a Splunk Support
  professional asks you to.
* If you specify "0", 'rawChunkSizeBytes' is set to the default value.
* NOTE: 'rawChunkSizeBytes' only specifies a target chunk size. The actual
  chunk size may be slightly larger by an amount proportional to an
  individual event size.
* You must restart splunkd after changing this setting. Reloading the
  configuration does not suffice.
* The highest legal value is 18446744073709551615
* Default: 131072 (128 kilobytes)

minRawFileSyncSecs = <nonnegative decimal>|disable
* How frequently splunkd forces a filesystem sync while compressing journal
  slices. During this interval, uncompressed slices are left on disk even
  after they are compressed. Splunkd then forces a filesystem sync of the
  compressed journal and remove the accumulated uncompressed files.
* If you specify "0", splunkd forces a filesystem sync after every slice
  completes compressing.
* If you specify "disable", syncing is disabled entirely; uncompressed
  slices are removed as soon as compression is complete.
* Some filesystems are very inefficient at performing sync operations, so
  only enable this if you are sure you need it.
* You must restart splunkd after changing this setting. Reloading the
  configuration does not suffice.
* No exponent may follow the decimal.
* The highest legal value is 18446744073709551615.
* Default: "disable"

maxMemMB = <nonnegative integer>
* The amount of memory, in megabytes, to allocate for indexing.
* This amount of memory will be allocated PER INDEX THREAD, or, if
  indexThreads is set to 0, once per index.
* CAUTION: Calculate this number carefully. splunkd crashes if you set
  this number to higher than the amount of memory available.
* The default is recommended for all environments.
* The highest legal value is 4294967295.
* Default: 5

maxHotSpanSecs = <positive integer>
* Upper bound of timespan of hot/warm buckets, in seconds.
* This is an advanced setting that should be set
  with care and understanding of the characteristics of your data.
* Splunkd applies this limit per ingestion pipeline. For more
  information about multiple ingestion pipelines, see
  'parallelIngestionPipelines' in the server.conf.spec file.
* With N parallel ingestion pipelines, each ingestion pipeline writes to
  and manages its own set of hot buckets, without taking into account the state
  of hot buckets managed by other ingestion pipelines. Each ingestion pipeline
  independently applies this setting only to its own set of hot buckets.
* If you set 'maxHotBuckets' to 1, splunkd attempts to send all
  events to the single hot bucket and does not enforce 'maxHotSpanSeconds'.
* If you set this setting to less than 3600, it will be automatically
  reset to 3600.
* NOTE: If you set this setting to too small a value, splunkd can generate
  a very large number of hot and warm buckets within a short period of time.
* The highest legal value is 4294967295.
* NOTE: the bucket timespan snapping behavior is removed from this setting.
  See the 6.5 spec file for details of this behavior.
* Default: 7776000 (90 days)

maxHotIdleSecs = <nonnegative integer>
* How long, in seconds, that a hot bucket can remain in hot status without
  receiving any data.
* If a hot bucket receives no data for more than 'maxHotIdleSecs' seconds,
  splunkd rolls the bucket to warm.
* This setting operates independently of 'maxHotBuckets', which can also cause
  hot buckets to roll.
* A value of 0 turns off the idle check (equivalent to infinite idle time).
* The highest legal value is 4294967295
* Default: 0

maxHotBuckets = <positive integer> | auto
```

```
* Maximum number of hot buckets that can exist per index.
* When 'maxHotBuckets' is exceeded, the indexer rolls the hot bucket
  containing the least recent data to warm.
* Both normal hot buckets and quarantined hot buckets count towards this
  total.
* This setting operates independently of maxHotIdleSecs, which can also
  cause hot buckets to roll.
* NOTE: the indexer applies this limit per ingestion pipeline. For more
  information about multiple ingestion pipelines, see
  'parallelIngestionPipelines' in the server.conf.spec file.
* With N parallel ingestion pipelines, the maximum number of hot buckets across
  all of the ingestion pipelines is N * 'maxHotBuckets', but only
  'maxHotBuckets' for each ingestion pipeline. Each ingestion pipeline
  independently writes to and manages up to 'maxHotBuckets' number of hot
  buckets. Consequently, when multiple ingestion pipelines are configured, there
  may be multiple hot buckets with events on overlapping time ranges.
* The highest legal value is 1024. However, do not set to a value greater
  than 11 without direction from Splunk Support. Higher values can degrade
  indexing performance.
* If you specify "auto", the indexer sets the value to 3.
* This setting applies only to event indexes.
* Default: "auto"

metric.maxHotBuckets = <positive integer> | auto
* Maximum number of hot buckets that can exist per metric index
* When 'metric.maxHotBuckets' is exceeded, the indexer rolls the hot bucket
  containing the least recent data to warm.
* Both normal hot buckets and quarantined hot buckets count towards this
  total.
* This setting operates independently of maxHotIdleSecs, which can also
  cause hot buckets to roll.
* NOTE: the indexer applies this limit per ingestion pipeline. For more
  information about multiple ingestion pipelines, see
  'parallelIngestionPipelines' in the server.conf.spec file.
* With N parallel ingestion pipelines, the maximum number of hot buckets across
  all of the ingestion pipelines is N * 'metric.maxHotBuckets', but only
  'metric.maxHotBuckets' for each ingestion pipeline. Each ingestion pipeline
  independently writes to and manages up to 'metric.maxHotBuckets' number of hot
  buckets. Consequently, when multiple ingestion pipelines are configured, there
  may be multiple hot buckets with events on overlapping time ranges.
* The highest legal value is 4294967295
* If you specify "auto", the indexer uses the value set for "maxHotBuckets".
  For example, if "maxHotBuckets" is also set to "auto", the functional value
  for metrics.maxHotBuckets is 6. But, if "maxHotBuckets" is set to 10, the
  functional value for metrics.maxHotBuckets is 10.
* This setting applies only to metric indexes.
* Default: "auto"

minHotIdleSecsBeforeForceRoll = <nonnegative integer>|auto
* When there are no existing hot buckets that can fit new events because of
  their timestamps and the constraints on the index (refer to 'maxHotBuckets',
  'maxHotSpanSecs' and 'quarantinePastSecs'), if any hot bucket has been idle
  (not receiving any data) for 'minHotIdleSecsBeforeForceRoll' seconds,
  a new bucket is created to receive these new events and the
  idle bucket is rolled to warm.
* If no hot bucket has been idle for 'minHotIdleSecsBeforeForceRoll' seconds,
  or if 'minHotIdleSecsBeforeForceRoll' has been set to 0, then a best fit
  bucket is chosen for these new events from the existing set of hot buckets.
* This setting operates independently of 'maxHotIdleSecs', which causes hot
  buckets to roll after they have been idle for 'maxHotIdleSecs' seconds,
  regardless of whether new events can fit into the existing hot buckets or not
  due to an event timestamp. 'minHotIdleSecsBeforeForceRoll', on the other hand,
  controls a hot bucket roll only under the circumstances when the timestamp
  of a new event cannot fit into the existing hot buckets given the other
  setting constraints on the system (such as 'maxHotBuckets',
  'maxHotSpanSecs', and 'quarantinePastSecs').
* If you specify "auto", splunkd autotunes this setting.
  The value begins at 600 and automatically adjusts upwards for
  optimal performance. Specifically, the value increases when a hot bucket rolls
  due to idle time with a significantly smaller size than 'maxDataSize'. As a
  consequence, the outcome might be fewer buckets, though these buckets might
  span wider earliest-latest time ranges of events.
* If you specify a value of "0", splunkd turns off the idle check
  (this is equivalent to infinite idle time).
* Setting this to zero means that splunkd never rolls a hot bucket as a
  consequence of an event not fitting into an existing hot bucket due to the
  constraints of other settings. Instead, it finds a best fitting
  bucket to accommodate that event.
* The highest legal value is 4294967295.
* NOTE: If you configure this setting, there is a chance that this could
  lead to frequent hot bucket rolls to warm, depending on the value. If your
  index contains a large number of buckets whose size on disk falls
  considerably short of the size specified in 'maxDataSize', and if the reason
  for the roll of these buckets is due to "caller=lru", then configuring the
  setting value to a larger value or to zero might reduce the frequency of hot
  bucket rolls (see the "auto" value above). You can check splunkd.log for a
  message like the following for rolls due to this setting:
    INFO  HotBucketRoller - finished moving hot to warm
      bid=_internal~0~97597E05-7156-43E5-85B1-B0751462D16B idx=_internal
      from=hot_v1_0 to=db_1462477093_1462477093_0 size=40960 caller=lru
      maxHotBuckets=3, count=4 hot buckets,evicting_count=1 LRU hots
* Default: auto

splitByIndexKeys = <comma separated list>
* By default, splunkd splits buckets by time ranges. When this happens, each
  bucket is defined by an earliest and latest time.
* Use this setting to optionally split buckets by one or more index key fields
  instead of time ranges.
* Valid key values are: host, sourcetype, source.
* This setting applies only to event indexes and requires that the minimal
  value of 'maxHotBuckets' is 2.
* If not set, splunkd splits buckets by time span.
* Default: empty string (no key)

metric.splitByIndexKeys = <comma separated list>
* By default, splunkd splits buckets by time ranges. When this happens, each
  bucket is defined by an earliest and latest time.
* Use this setting to optionally split buckets by one or more index key fields
  instead of time ranges.
* Valid key values are: host, sourcetype, source, metric_name.
* This setting applies only to metric indexes and requires that the minimal
  value of 'metric.maxHotBuckets' is 2.
* If not set, the setting 'splitByIndexKeys' applies. If 'splitByIndexKeys' is
  not set either, splunkd splits buckets by time span.
* Default: empty string (no key)

quarantinePastSecs = <positive integer>
* Determines what constitutes an anomalous past timestamp for quarantining
  purposes.
* If an event has a timestamp of 'quarantinePastSecs' older than the
  current time ("now"), the indexer puts that event in the quarantine bucket.
* This is a mechanism to prevent the main hot buckets from being polluted
  with fringe events.
* The highest legal value is 4294967295
* Default: 77760000 (900 days)

quarantineFutureSecs = <positive integer>
* Determines what constitutes an anomalous future timestamp for quarantining
  purposes.
* If an event has a timestamp of 'quarantineFutureSecs' newer than the
  current time ("now"), the indexer puts that event in the quarantine bucket.
* This is a mechanism to prevent the main hot buckets from being polluted with
  fringe events.
* The highest legal value is 4294967295
* Default: 2592000 (30 days)

maxMetaEntries = <nonnegative integer>
* The maximum number of unique lines in .data files in a bucket, which
```

```
  might help to reduce memory consumption
* If this value is exceeded, a hot bucket is rolled to prevent further increase
* If your buckets are rolling due to Strings.data hitting this limit, the
  culprit might be the 'punct' field in your data. If you do not use 'punct',
  it might be best to simply disable this (see props.conf.spec)
  * NOTE: since at least 5.0.x, large strings.data from usage of punct are rare.
* There is a delta between when 'maxMetaEntries' is exceeded and splunkd rolls
  the bucket.
* This means a bucket might end up with more lines than specified in
  'maxMetaEntries', but this is not a major concern unless that excess
  is significant.
* If set to 0, splunkd ignores this setting (it is treated as infinite)
* Highest legal value is 4294967295.
* No default.

syncMeta = <boolean>
* Whether or not splunkd calls a sync operation before the file descriptor
  is closed on metadata file updates.
* When set to "true", splunkd calls a sync operation before it closes the
  file descriptor on metadata file updates.
* This functionality was introduced to improve integrity of metadata files,
  especially in regards to operating system crashes/machine failures.
* NOTE: Do not change this setting without the input of a Splunk support
  professional.
* You must restart splunkd after changing this setting. Reloading the
  configuration does not suffice.
* Default: true

serviceMetaPeriod = <positive integer>
* Defines how frequently, in seconds, that metadata is synced to disk.
* You might want to set this to a higher value if the sum of your metadata
  file sizes is larger than many tens of megabytes, to avoid the hit on I/O
  in the indexing fast path.
* The highest legal value is 4294967295
* Default: 25

partialServiceMetaPeriod = <positive integer>
* The amount of time, in seconds, that splunkd syncs metadata for records that
  can be synced efficiently in place without requiring a full rewrite of the
  metadata file.
* Related to 'serviceMetaPeriod'. Records that require a full rewrite of the
  metadata file are synced every 'serviceMetaPeriod' seconds.
* If you set this to 0, the feature is turned off, and 'serviceMetaPeriod'
  is the only time when metadata sync happens.
* If the value of 'partialServiceMetaPeriod' is greater than
  the value of 'serviceMetaPeriod', this setting has no effect.
* Splunkd ignores this setting if 'serviceOnlyAsNeeded' = "true" (the default).
* The highest legal value is 4294967295.
* Default: 0 (disabled)

throttleCheckPeriod = <positive integer>
* How frequently, in seconds, that splunkd checks for index throttling
  conditions.
* NOTE: Do not change this setting unless a Splunk Support
  professional asks you to.
* The highest legal value is 4294967295.
* Default: 15

maxTimeUnreplicatedWithAcks = <nonnegative decimal>
* How long, in seconds, that events can remain in an unacknowledged state
  within a raw slice.
* This value is important if you have enabled indexer acknowledgment on
  forwarders by configuring the 'useACK' setting in outputs.conf and
  have enabled replication through indexer clustering.
* This is an advanced setting. Confirm that you understand the settings
  on all your forwarders before changing it.
    * Do not exceed the ack timeout configured on any forwarders.
    * Set to a number that is at most half of the minimum value of that timeout.
  Review the 'readTimeout' setting in the [tcpout] stanza in outputs.conf.spec
  for information about the ack timeout.
* Configuring this setting to 0 disables the check. Do not do this.
* The highest legal value is 2147483647.
* Default: 60

maxTimeUnreplicatedNoAcks = <nonnegative decimal>
* How long, in seconds, that events can remain in a raw slice.
* This setting is important only if replication is enabled for this index,
  otherwise it is ignored.
* If there are any acknowledged events that share this raw slice, this setting
  does not apply. Instead, splunkd uses the value in the
  'maxTimeUnreplicatedWithAcks' setting.)
* The highest legal value is 2147483647.
* Configuring this setting to 0 disables the check.
* Do not configure this setting on remote storage enabled indexes.
* NOTE: Take care and understand the consequences before changing this setting.
* Default: 300

isReadOnly = <boolean>
* Whether or not the index is read-only.
* If you set to "true", no new events can be added to the index, but the
  index is still searchable.
* You must restart splunkd after changing this setting. Reloading the
  index configuration does not suffice.
* Do not configure this setting on remote storage enabled indexes.
* If set to 'true', replication must be turned off (repFactor=0) for the index.
* Default: false

homePath.maxDataSizeMB = <nonnegative integer>
* Specifies the maximum size of 'homePath' (which contains hot and warm
  buckets).
* If this size is exceeded, splunkd moves buckets with the oldest value
  of latest time (for a given bucket) into the cold DB until homePath is
  below the maximum size.
* If you set this setting to 0, or do not set it, splunkd does not constrain the
  size of 'homePath'.
* The highest legal value is 4294967295.
* Splunkd ignores this setting for remote storage enabled indexes.
* Default: 0

coldPath.maxDataSizeMB = <nonnegative integer>
* Specifies the maximum size of 'coldPath' (which contains cold buckets).
* If this size is exceeded, splunkd freezes buckets with the oldest value
  of latest time (for a given bucket) until coldPath is below the maximum
  size.
* If you set this setting to 0, or do not set it, splunkd does not constrain the
  size of 'coldPath'.
* If splunkd freezes buckets due to enforcement of this setting, and
  'coldToFrozenScript' and/or 'coldToFrozenDir' archiving settings are also
  set on the index, these settings are used.
* Splunkd ignores this setting for remote storage enabled indexes.
* The highest legal value is 4294967295.
* Default: 0

disableGlobalMetadata = <boolean>
* NOTE: This option was introduced in version 4.3.3, but as of 5.0 it
  is obsolete and splunkd ignores it if you set it.
* It used to disable writing to the global metadata. In 5.0,  global metadata
  was removed.

repFactor = 0|auto
* Valid only for indexer cluster peer nodes.
* Determines whether an index gets replicated.
* Configuring this setting to 0 turns off replication for this index.
* Configuring to "auto" turns on replication for this index.
* You must configure this setting to the same value on all peer nodes.
* Default: 0

minStreamGroupQueueSize = <nonnegative integer>
```

```
* Minimum size of the queue that stores events in memory before committing
  them to a tsidx file.
* As splunkd operates, it continually adjusts this size internally. Splunkd
  could decide to use a small queue size and thus generate tiny tsidx files
  under certain unusual circumstances, such as file system errors.  The
  danger of a very low minimum is that it can generate very tiny tsidx files
  with one or very few events, making it impossible for splunk-optimize to
  catch up and optimize the tsidx files into reasonably sized files.
* Do not configure this setting unless a Splunk Support professional
  asks you to.
* The highest legal value is 4294967295.
* Default: 2000

streamingTargetTsidxSyncPeriodMsec = <nonnegative integer>
* The amount of time, in milliseconds, that splunkd forces a sync
  of tsidx files on streaming targets.
* This setting is needed for multisite clustering where streaming targets
  might be primary.
* If you configure this setting to 0, syncing of tsidx files on
  streaming targets does not occur.
* No default.

journalCompression = gzip|lz4|zstd
* The compression algorithm that splunkd should use for the rawdata journal
  file of new index buckets.
* This setting does not have any effect on already created buckets. There is
  no problem searching buckets that are compressed with different algorithms.
* "zstd" is only supported in Splunk Enterprise version 7.2.x and higher. Do
  not enable that compression format if you have an indexer cluster where some
  indexers run an earlier version of Splunk Enterprise.
* Default: gzip

enableTsidxReduction = <boolean>
* When set to true, this setting enables tsidx file reduction for event indexes.
* Under tsidx file reduction, the indexer reduces the tsidx files of buckets
  when the buckets reach the age specified by
  'timePeriodInSecBeforeTsidxReduction'.
* CAUTION: Do not set this setting to "true" for event indexes that are
  configured to use remote storage with the "remotePath" setting.
* NOTE: This setting applies to buckets in warm, cold, and thawed.
  It does not apply to metrics index buckets
* Default: false

metric.enableFloatingPointCompression = <boolean>
* Determines whether the floating-point values compression is enabled for metric
  index files.
* Set this to false only if you are experiencing high CPU usage during data
  ingestion. However, doing this will cause you to lose the disk space savings
  that the compression gives you.
* Default: true

metric.compressionBlockSize = <integer>
* The block size, in words (eight-byte multiples), that the floating-point compression
  algorithm should use to store compressed data within a single block in a column.
* Valid only if 'metric.enableMetricTsidxFloatingPointCompression' is set to "true".
* Minimum value: 128 (1024 bytes)
* Default: 1024 (8192 bytes)

metric.stubOutRawdataJournal = <boolean>
* For metrics indexes only.
* Determines whether the data in the rawdata file is deleted when the hot bucket
  rolls to warm. The rawdata file itself remains in place in the bucket.
* Tsidx files are not affected by this setting.
* This setting does not take effect for indexes that have replication enabled ("repFactor=auto")
  in an indexer cluster deployment.
* A change to this setting affects only future buckets or buckets that are currently hot
  when the change occurs. It does not affect buckets already in the warm or cold state.
* Searches over metrics indexes do not use the rawdata file. Therefore, changing this
  setting to "true" does not affect search results.
```

```
* The benefits of setting to true are:
   * Reduces storage requirements, by reducing rawdata files to the minimal size.
   * Potentially improves search time, because the maximum bucket size (controlled by "maxDataSizeMB")
     now allows for larger tsidx files, since the rawdata file no longer occupies significant space.
     The rawdata file size is discounted from the overall bucket size while writing continues in a hot bucket,
     even though the rawdata file is not removed until the bucket rolls to warm. Thus, the hot bucket might
     exceed "maxDataSizeMB", but, once the bucket rolls to warm, its size will no longer exceed "maxDataSizeMB".
* Caution: Because setting this attribute to "true" eliminates the data in the rawdata files, those
  files can no longer be used in bucket repair operations.
* Default: true

suspendHotRollByDeleteQuery = <boolean>
* Whether or not splunkd rolls hot buckets upon running of the "delete"
  search command, or waits to roll them for other reasons.
* When the "delete" search command is run, all buckets that contain data
  to be deleted are marked for updating of their metadata files. The indexer
  normally first rolls any hot buckets as rolling must precede the metadata
  file updates.
* When 'suspendHotRollByDeleteQuery' is set to "true", the rolling of hot
  buckets for the "delete" command is suspended. The hot buckets, although
  marked, do not roll immediately, but instead wait to roll in response to
  the same circumstances operative for any other hot buckets; for example,
  due to reaching a limit set by 'maxHotBuckets', 'maxDataSize', etc. When
  these hot buckets finally roll, their metadata files are then updated.
* Default: false

tsidxReductionCheckPeriodInSec = <positive integer>
* The amount of time, in seconds, between service runs to reduce the tsidx
  files for any buckets that have reached the age specified by
  'timePeriodInSecBeforeTsidxReduction'.
* Default: 600

timePeriodInSecBeforeTsidxReduction = <positive integer>
* The amount of time, in seconds, that a bucket can age before it
  becomes eligible for tsidx reduction.
* The bucket age is the difference between the current time
  and the timestamp of the bucket's latest event.
* When this time difference is exceeded, a bucket becomes eligible
  for tsidx reduction.
* Default: 604800

tsidxDedupPostingsListMaxTermsLimit = <positive integer>
* This setting is valid only when 'tsidxWritingLevel' is at 4 or higher.
* This max term limit sets an upper bound on the number of terms kept inside an
  in-memory hash table that serves to improve tsidx compression.
* The tsidx optimizer uses the hash table to identify terms with identical
  postings lists. When the first instance of a term is received its postings
  list is stored. When successive terms with identical postings lists are
  received the tsidx optimizer makes them refer to the first instance of the
  postings list rather than creating and storing term postings list duplicates.
* Consider increasing this limit to improve compression for large tsidx files.
  For example, a tsidx file created with 'tsidxTargetSizeMB' over 1500MB can
  contain a large number of terms with identical postings lists.
* Reducing this limit helps conserve memory consumed by optimization processes,
  at the cost of reduced tsidx compression.
* Set this limit to 0 to disable deduplicated postings list compression.
* This setting cannot exceed 1,073,741,824 (2^30).
* Default: 8,388,608 (2^23)

tsidxTargetSizeMB = <positive integer>
* The target size for tsidx files. The indexer attempts to make all tsidx files
  in index buckets as close to this size as possible when:
      (a) buckets merge.
      (b) hot buckets roll to warm buckets.
* This value is used to help tune the performance of tsidx-based search queries,
  especially 'tstats'.
* If this value exceeds 'maxDataSize', then the hot bucket will roll based
  on the 'maxDataSize' configuration even if no tsidx file has met the
  specified 'tsidxTargetSizeMB'.
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* Cannot exceed 4096 MB (4 GB).
* Default: 1500 (MB)

metric.tsidxTargetSizeMB = <positive integer>
* The target size for msidx files (tsidx files for metrics data). The indexer
  attempts to make all msidx files in index buckets as close to this size as
  possible when:
      (a) buckets merge.
      (b) hot buckets roll to warm buckets.
* This value is used to help tune the performance of metrics search queries,
  especially 'mstats'.
* If this value exceeds 'maxDataSize', then the hot bucket will roll based
  on the 'maxDataSize' configuration even if no msidx file has met the
  specified 'metric.tsidxTargetSizeMB'.
* Cannot exceed 4096 MB (4 GB).
* Default: 1500 (MB)

metric.timestampResolution = <s|ms>
* This setting specifies the timestamp resolution for metrics tsidx files.
  Specify 's' for timestamps with second resolution. Specify 'ms' for
  timestamps with millisecond resolution.
* Indexes with millisecond timestamp precision have reduced search performance.
* Optional.
* Default: s

datatype = <event|metric>
* Determines whether the index stores log events or metric data.
* If set to "metric", the indexer optimizes the index to store metric
  data which can be  queried later only using the 'mstats' operator,
  as searching metric data is different from traditional log events.
* Use the "metric" data type only for metric sourcetypes like statsd.
* Optional.
* Default: event

waitPeriodInSecsForManifestWrite = <nonnegative integer>
* This setting specifies the minimum interval, in seconds, between periodic
  updates of an index's manifest file.
* Setting to a lower value can reduce the performance of bucket operations like
  fix-ups, freezes, etc.
* Do not increase this value beyond the default except through consultation with
  Splunk Support. Increasing the value can lead to inconsistencies in data.
* The highest legal value is 4294967295.
* Default: 60 (1 min)

hotBucketStreaming.sendSlices = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Enables uploading of journal slices of hot buckets to the remote storage.
* Default: false

hotBucketStreaming.removeRemoteSlicesOnRoll = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Enables removal of uploaded journal slices of hot buckets from the remote
  storage after a bucket rolls from hot to warm.
* This setting should be enabled only if 'hotBucketStreaming.sendSlices' is
  also enabled.
* Default: false

hotBucketStreaming.removeRemoteSlicesOnFreeze = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Enables removal of uploaded journal slices of hot buckets from the remote
  storage after a bucket rolls from warm to frozen.
* This setting should be enabled only if 'hotBucketStreaming.sendSlices' is
  also enabled.
* Default: false

hotBucketStreaming.reportStatus = <boolean>
```

```
* Currently not supported. This setting is related to a feature that is
  still under development.
* Default: false

hotBucketStreaming.deleteHotsAfterRestart = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Default: false
```

每个提供程序系列选项

```
# A provider family is a way of collecting properties that are common to
# multiple providers. There are no properties that can only be used in a
# provider family, and not in a provider. If the same property is specified
# in a family, and in a provider belonging to that family, then the latter
# value "wins".
#
# All family stanzas begin with "provider-family:". For example:
# [provider-family:family_name]
# vix.mode=stream
# vix.command = java
# vix.command.arg.1 = -Xmx512m
# ....
#**************************************************************************
```

每个提供程序选项

```
# These options affect External Resource Providers (ERPs). All provider stanzas
# begin with "provider:". For example:
#   [provider:provider_name]
#   vix.family                  = hadoop
#   vix.env.JAVA_HOME           = /path/to/java/home
#   vix.env.HADOOP_HOME         = /path/to/hadoop/client/libraries
#
# Each virtual index must reference a provider.
#**************************************************************************
vix.family = <family>
* A provider family to which this provider belongs.
* The only family available by default is "hadoop". Others can be added.

vix.mode = stream|report
* Usually specified at the family level.
* Typically should be "stream".
* In general, do not use "report" without consulting Splunk Support.

vix.command = <command>
* The command to be used to launch an external process for searches on this
  provider.
* Usually specified at the family level.

vix.command.arg.<N> = <argument>
* The Nth argument to the command specified by vix.command.
* Usually specified at the family level, but frequently overridden at the
  provider level, for example to change the jars used depending on the
  version of Hadoop to which a provider connects.

vix.<property name> = <property value>
* All such properties will be made available as "configuration properties" to
  search processes on this provider.
* For example, if this provider is in the Hadoop family, the configuration
  property "mapreduce.foo = bar" can be made available to the Hadoop
  via the property "vix.mapreduce.foo = bar".
```

```
vix.env.<env var name> = <env var variable>
* Will create an environment variable available to search processes on this
  provider.
* For example, to set the JAVA_HOME variable to "/path/java" for search
  processes on this provider, use "vix.env.JAVA_HOME = /path/java".

#**************************************************************************
# PER PROVIDER OPTIONS -- HADOOP
# These options are specific to ERPs with the Hadoop family.
# NOTE: Many of these properties specify behavior if the property is not
#       set. However, default values set in system/default/indexes.conf
#       take precedence over the "unset" behavior.
#**************************************************************************

vix.javaprops.<JVM system property name> = <value>
* All such properties will be used as Java system properties.
* For example, to specify a Kerberos realm (say "foo.com") as a Java
  system property, use the property
  "vix.javaprops.java.security.krb5.realm = foo.com".

vix.mapred.job.tracker = <logical name or server:port>
* In high-availability mode, use the logical name of the Job Tracker.
* Otherwise, should be set to server:port for the single Job Tracker.
* Note: this property is passed straight to Hadoop. Not all such properties
  are documented here.

vix.fs.default.name = <logical name or hdfs://server:port>
* In high-availability mode, use the logical name for a list of Name Nodes.
* Otherwise, use the URL for the single Name Node.
* Note: this property is passed straight to Hadoop. Not all such properties
  are documented here.

vix.splunk.setup.onsearch = true|false
* Whether to perform setup (install & bundle replication) on search.
* Default: false

vix.splunk.setup.package = current|<path to file>
* Splunk .tgz package to install and use on data nodes
  (in vix.splunk.home.datanode).
* Uses the current install if set to value 'current' (without quotes).

vix.splunk.home.datanode = <path to dir>
* Path to where splunk should be installed on datanodes/tasktrackers, i.e.
  SPLUNK_HOME.
* Required.

vix.splunk.home.hdfs = <path to dir>
* Scratch space for this Splunk instance on HDFS
* Required.

vix.splunk.search.debug = true|false
* Whether to run searches against this index in debug mode. In debug mode,
  additional information is logged to search.log.
* Optional.
* Default: false

vix.splunk.search.recordreader = <list of classes>
* Comma separated list of data preprocessing classes.
* Each such class must extend BaseSplunkRecordReader and return data to be
  consumed by Splunk as the value.

vix.splunk.search.splitter = <class name>
* Set to override the class used to generate splits for MR jobs.
* Classes must implement com.splunk.mr.input.SplitGenerator.
* Unqualified classes will be assumed to be in the package com.splunk.mr.input.
* May be specified in either the provider stanza, or the virtual index stanza.
* To search Parquet files, use ParquetSplitGenerator.
* To search Hive files, use HiveSplitGenerator.
```

```
vix.splunk.search.mr.threads = <postive integer>
* Number of threads to use when reading map results from HDFS
* Numbers less than 1 will be treated as 1.
* Numbers greater than 50 will be treated as 50.
* Default: 10

vix.splunk.search.mr.maxsplits = <positive integer>
* Maximum number of splits in an MR job.
* Default: 10000

vix.splunk.search.mr.minsplits = <positive integer>
* Number of splits for first MR job associated with a given search.
* Default: 100

vix.splunk.search.mr.splits.multiplier = <decimal greater than or equal to 1.0>
* Factor by which the number of splits is increased in consecutive MR jobs for
  a given search, up to the value of maxsplits.
* Default: 10

vix.splunk.search.mr.poll = <positive integer>
* Polling period for job status, in milliseconds.
* Default: 1000 (1 second).

vix.splunk.search.mr.mapper.output.replication = <positive integer>
* Replication level for mapper output.
* Default: 3

vix.splunk.search.mr.mapper.output.gzlevel = <integer between 0 and 9, inclusive>
* The compression level used for the mapper output.
* Default: 2

vix.splunk.search.mixedmode = <boolean>
* Whether mixed mode execution is enabled.
* Default: true

vix.splunk.search.mixedmode.maxstream = <nonnegative integer>
* Maximum number of bytes to stream during mixed mode.
* Value = 0 means there's no stream limit.
* Will stop streaming after the first split that took the value over the limit.
* Default: 10737418240 (10 GB).

vix.splunk.jars = <list of paths>
* Comma delimited list of Splunk dirs/jars to add to the classpath in the
  Search Head and MR.

vix.env.HUNK_THIRDPARTY_JARS = <list of paths>
* Comma delimited list of 3rd-party dirs/jars to add to the classpath in the
  Search Head and MR.

vix.splunk.impersonation = true|false
* Enable/disable user impersonation.

vix.splunk.setup.bundle.replication = <positive integer>
* Set custom replication factor for bundles on HDFS.
* Must be an integer between 1 and 32767.
* Increasing this setting may help performance on large clusters by decreasing
  the average access time for a bundle across Task Nodes.
* Optional.
* Default: The default replication factor for the file-system applies.

vix.splunk.setup.bundle.max.inactive.wait = <positive integer>
* A positive integer represent a time interval in seconds.
* While a task waits for a bundle being replicated to the same node by another
  task, if the bundle file is not modified for this amount of time, the task
  will begin its own replication attempt.
* Default: 5

vix.splunk.setup.bundle.poll.interval = <positive integer>
```

```
* A positive number, representing a time interval in milliseconds.
* While a task waits for a bundle to be installed by another task on the same
  node, it will check once per interval whether that installation is complete.
* Default: 100

vix.splunk.setup.bundle.setup.timelimit = <positive integer>
* A positive number, representing a time duration in milliseconds.
* A task will wait this long for a bundle to be installed before it quits.
* Default: 20000 (20 seconds).

vix.splunk.setup.package.replication = true|false
* Set custom replication factor for the Splunk package on HDFS. This is the
  package set in the property vix.splunk.setup.package.
* Must be an integer between 1 and 32767.
* Increasing this setting may help performance on large clusters by decreasing
  the average access time for the package across Task Nodes.
* Optional. If not set, the default replication factor for the file-system
  will apply.

vix.splunk.setup.package.max.inactive.wait = <positive integer>
* A positive integer represent a time interval in seconds.
* While a task waits for a Splunk package being replicated to the same node by
  another task, if the package file is not modified for this amount of time,
  the task will begin its own replication attempt.
* Default: 5

vix.splunk.setup.package.poll.interval = <positive integer>
* A positive number, representing a time interval in milliseconds.
* While a task waits for a Splunk package to be installed by another task on
  the same node, it will check once per interval whether that installation is
  complete.
* Default: 100

vix.splunk.setup.package.setup.timelimit = <positive integer>
* A positive number, representing a time duration in milliseconds.
* A task will wait this long for a Splunk package to be installed before it quits.
* Default: 20000 (20 seconds)

vix.splunk.setup.bundle.reap.timelimit = <positive integer>
* Specific to Hunk provider
* For bundles in the working directory on each data node, this property controls
  how old they must be before they are eligible for reaping.
* Unit is milliseconds
* Values larger than 86400000 will be treated as if set to 86400000.
* Default: 86400000 (24 hours)

vix.splunk.search.column.filter = <boolean>
* Enables/disables column filtering. When enabled, Hunk will trim columns that
  are not necessary to a query on the Task Node, before returning the results
  to the search process.
* Should normally increase performance, but does have its own small overhead.
* Works with these formats: CSV, Avro, Parquet, Hive.
* Default: true

#
# Kerberos properties
#

vix.kerberos.principal = <kerberos principal name>
* Specifies principal for Kerberos authentication.
* Should be used with vix.kerberos.keytab and either
  1) vix.javaprops.java.security.krb5.realm and
     vix.javaprops.java.security.krb5.kdc, or
  2) security.krb5.conf

vix.kerberos.keytab = <kerberos keytab path>
* Specifies path to keytab for Kerberos authentication.
* See usage note with vix.kerberos.principal.
```

```
#
# The following properties affect the SplunkMR heartbeat mechanism. If this
# mechanism is turned on, the SplunkMR instance on the Search Head updates a
# heartbeat file on HDFS. Any MR job spawned by report or mix-mode searches
# checks the heartbeat file. If it is not updated for a certain time, it will
# consider SplunkMR to be dead and kill itself.
#

vix.splunk.heartbeat = <boolean>
* Turn on/off heartbeat update on search head, and checking on MR side.
* Default: true

vix.splunk.heartbeat.path = <path on HDFS>
* Path to heartbeat file.
* If not set, defaults to <vix.splunk.home.hdfs>/dispatch/<sid>/

vix.splunk.heartbeat.interval = <positive integer>
* The frequency, in milliseconds, with which the Heartbeat will be updated
  on the Search Head.
* Minimum value is 1000. Smaller values will cause an exception to be thrown.
* Default: 6000 (6 seconds)

vix.splunk.heartbeat.threshold = <positive integer>
* The number of times the MR job will detect a missing heartbeat update before
  it considers SplunkMR dead and kills itself.
* Default: 10

## The following sections are specific to data input types.

#
# Sequence file
#

vix.splunk.search.recordreader.sequence.ignore.key = <boolean>
* When reading sequence files, if this key is enabled, events will be expected
  to only include a value. Otherwise, the expected representation is
  key+"\t"+value.
* Default: true

#
# Avro
#

vix.splunk.search.recordreader.avro.regex = <string>
* The regular expression that files must match in order to be considered avro files.
* Optional.
* Default: \.avro$

#
# Parquet
#

vix.splunk.search.splitter.parquet.simplifyresult = <boolean>
* If enabled, field names for map and list type fields will be simplified by
  dropping intermediate "map" or "element" subfield names. Otherwise, a field
  name will match parquet schema completely.
* May be specified in either the provider stanza or in the virtual index stanza.
* Default: true

#
# Hive
#

vix.splunk.search.splitter.hive.ppd = <boolean>
* Enable or disable Hive ORC Predicate Push Down.
* If enabled, ORC PPD will be applied whenever possible to prune unnecessary
  data as early as possible to optimize the search.
* May be specified in either the provider stanza or in the virtual index stanza.
* Default: true

vix.splunk.search.splitter.hive.fileformat = textfile|sequencefile|rcfile|orc
* Format of the Hive data files in this provider.
* May be specified in either the provider stanza or in the virtual index stanza.
* Default: "textfile"

vix.splunk.search.splitter.hive.dbname = <DB name>
* Name of Hive database to be accessed by this provider.
* Optional.
* May be specified in either the provider stanza or in the virtual index stanza.
* Default: "default"

vix.splunk.search.splitter.hive.tablename = <table name>
* Table accessed by this provider.
* Required property.
* May be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.columnnames = <list of column names>
* Comma-separated list of file names.
* Required if using Hive, not using metastore.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.columntypes = string:float:int # COLON separated list of column types, required
* Colon-separated list of column- types.
* Required if using Hive, not using metastore.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.serde = <SerDe class>
* Fully-qualified class name of SerDe.
* Required if using Hive, not using metastore, and if specified in creation of Hive table.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.serde.properties = <list of key-value pairs>
* Comma-separated list of "key=value" pairs.
* Required if using Hive, not using metastore, and if specified in creation of Hive table.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.fileformat.inputformat = <InputFormat class>
* Fully-qualified class name of an InputFormat to be used with Hive table data.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.rowformat.fields.terminated = <delimiter>
* Will be set as the Hive SerDe property "field.delim".
* Optional.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.rowformat.escaped = <escape char>
* Will be set as the Hive SerDe property "escape.delim".
* Optional.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.rowformat.lines.terminated = <delimiter>
* Will be set as the Hive SerDe property "line.delim".
* Optional.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.rowformat.mapkeys.terminated  = <delimiter>
* Will be set as the Hive SerDe property "mapkey.delim".
* Optional.
* Can be specified in either the provider stanza or in the virtual index stanza.

vix.splunk.search.splitter.hive.rowformat.collectionitems.terminated = <delimiter>
* Will be set as the Hive SerDe property "colelction.delim".
* Optional.
* Can be specified in either the provider stanza or in the virtual index stanza.

#
# Archiving
```

```
#

vix.output.buckets.max.network.bandwidth = 0|<bits per second>
* Throttles network bandwidth to <bits per second>
* Set at provider level. Applied to all virtual indexes using a provider
  with this setting.
* Default: 0 (no throttling)
```

每个虚拟索引选项

```
# These options affect virtual indexes. Like indexes, these options may
# be set under an [<virtual-index>] entry.
#
# Virtual index names have the same constraints as normal index names.
#
# Each virtual index must reference a provider. I.e:
# [virtual_index_name]
# vix.provider = <provider_name>
#
# All configuration keys starting with "vix." will be passed to the
# external resource provider (ERP).
#**************************************************************************

vix.provider = <provider_name>
* Name of the external resource provider to use for this virtual index.

#**************************************************************************
# PER VIRTUAL INDEX OPTIONS -- HADOOP
# These options are specific to ERPs with the Hadoop family.
#**************************************************************************

#
# The vix.input.* configurations are grouped by an id.
# Inputs configured via the UI always use '1' as the id.
# In this spec we'll use 'x' as the id.
#

vix.input.x.path = <path>
* Path in a Hadoop filesystem (usually HDFS or S3).
* May contain wildcards.
* Checks the path for data recursively when ending with '...'
* Can extract fields with ${field}. I.e: "/data/${server}/...", where server
  will be extracted.
* May start with a schema.
  * The schema of the path specifies which hadoop filesystem implementation to
    use. Examples:
    * hdfs://foo:1234/path, will use a HDFS filesystem implementation
    * s3a://s3-bucket/path, will use a S3 filesystem implementation

vix.input.x.accept = <regex>
* Specifies an allow list regex.
* Only files within the location given by matching vix.input.x.path, whose
  paths match this regex, will be searched.

vix.input.x.ignore = <regex>
* Specifies a deny list regex.
* Searches will ignore paths matching this regex.
* These matches take precedence over vix.input.x.accept matches.

vix.input.x.required.fields = <comma separated list of fields>
* Fields that will be kept in search results even if the field is not
  required by the search

# Earliest time extractions - For all 'et' settings, there's an equivalent 'lt' setting.
vix.input.x.et.regex = <regex>
```

```
* Regex extracting earliest time from vix.input.x.path

vix.input.x.et.format = <java.text.SimpleDateFormat date pattern>
* Format of the extracted earliest time.
* See documentation for java.text.SimpleDateFormat

vix.input.x.et.offset = <seconds>
* Offset in seconds to add to the extracted earliest time.

vix.input.x.et.timezone = <java.util.SimpleTimeZone timezone id>
* Timezone in which to interpret the extracted earliest time.
* Examples: "America/Los_Angeles" or "GMT-8:00"

vix.input.x.et.value = mtime|<epoch time in milliseconds>
* Sets the earliest time for this virtual index.
* Can be used instead of extracting times from the path via vix.input.x.et.regex
* When set to "mtime", uses the file modification time as the earliest time.

# Latest time extractions - See "Earliest time extractions"

vix.input.x.lt.regex = <regex>
* Latest time equivalent of vix.input.x.et.regex

vix.input.x.lt.format = <java.text.SimpleDateFormat date pattern>
* Latest time equivalent of vix.input.x.et.format

vix.input.x.lt.offset = <seconds>
* Latest time equivalent of vix.input.x.et.offset

vix.input.x.lt.timezone = <java.util.SimpleTimeZone timezone id>
* Latest time equivalent of vix.input.x.et.timezone

vix.input.x.lt.value = <mod time>
* Latest time equivalent of vix.input.x.et.value

#
# Archiving
#

vix.output.buckets.path = <hadoop path>
* Path to a hadoop filesystem where buckets will be archived

vix.output.buckets.older.than = <integer>
* The age of a bucket, in seconds, before it is archived.
* The age of a bucket is determined by the the earliest _time field of
  any event in the bucket.

vix.output.buckets.from.indexes = <comma separated list of splunk indexes>
* List of (non-virtual) indexes that will get archived to this (virtual) index.

vix.unified.search.cutoff_sec = <seconds>
* Window length before present time that configures where events are retrieved
  for unified search
* Events from now to now-cutoff_sec will be retrieved from the splunk index
  and events older than cutoff_sec will be retrieved from the archive index

#**************************************************************************
# PER VIRTUAL INDEX OR PROVIDER OPTIONS -- HADOOP
# These options can be set at either the virtual index level or provider
# level, for the Hadoop ERP.
#
# Options set at the virtual index level take precedence over options set
# at the provider level.
#
# Virtual index level prefix:
# vix.input.<input_id>.<option_suffix>
#
# Provider level prefix:
# vix.splunk.search.<option_suffix>
```

```
#*************************************************************************

# The following options are just defined by their <option_suffix>

#
# Record reader options
#

recordreader.<name>.<conf_key> = <conf_value>
* Sets a configuration key for a RecordReader with <name> to <conf_value>

recordreader.<name>.regex = <regex>
* Regex specifying which files this RecordReader can be used for.

recordreader.journal.buffer.size = <bytes>
* Buffer size used by the journal record reader

recordreader.csv.dialect = default|excel|excel-tab|tsv
* Set the csv dialect for csv files
* A csv dialect differs on delimiter_char, quote_char and escape_char.
* Here is a list of how the different dialects are defined in order delimiter,
  quote, and escape:
  * default   = ,  " \
  * excel     = ,  " "
  * excel-tab = \t " "
  * tsv       = \t " \

#
# Splitter options
#

splitter.<name>.<conf_key> = <conf_value>
* Sets a configuration key for a split generator with <name> to <conf_value>
* See comment above under "PER VIRTUAL INDEX OR PROVIDER OPTIONS". This means
  that the full format is:
   vix.input.N.splitter.<name>.<conf_key> (in a vix stanza)
   vix.splunk.search.splitter.<name>.<conf_key> (in a provider stanza)

splitter.file.split.minsize = <integer>
* Minimum size, in bytes, for file splits.
* Default: 1

splitter.file.split.maxsize = <integer>
* Maximum size, in bytes, for file splits.
* Default: Long.MAX_VALUE

#*************************************************************************
# Dynamic Data Self Storage settings.
# This section describes settings that affect the archiver-
# optional and archiver-mandatory settings only.
#
# As the first step in the Dynamic Data Self Storage feature, it allows users
# to move their data from Splunk indexes to customer-owned external storage
# in AWS S3 when the data reaches the end of the retention period. Note that
# only the raw data and delete marker files are transferred to the external
# storage.
#
# Future development may include the support for storage hierarchies and the
# automation of data rehydration.
#
# For example, use the following settings to configure Dynamic Data Self Storage.
#   archiver.selfStorageProvider     = S3
#   archiver.selfStorageBucket       = mybucket
#   archiver.selfStorageBucketFolder = folderXYZ
#*************************************************************************
archiver.selfStorageProvider = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies the storage provider for Self Storage.
* Optional. Only required when using Self Storage.
* The only providers currently supported are S3 and GCS for AWS and GCP, respectively.

archiver.selfStorageBucket = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies the destination bucket for Self Storage.
* Optional. Only required when using Self Storage.

archiver.selfStorageBucketFolder = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies the folder on the destination bucket for Self Storage.
* Optional.
* If not specified, data is uploaded to the root path in the destination bucket.

#**************************************************************************
# Dynamic Data Archive lets you move your data from your Splunk Cloud indexes to a
# storage location. You can configure Splunk Cloud to automatically move the data
# in an index when the data reaches the end of the Splunk Cloud retention period
# you configure. In addition, you can restore your data to Splunk Cloud if you need
# to perform some analysis on the data.
# For each index, you can use Dynamic Data Self Storage or Dynamic Data Archive,
# but not both.
#
# For example, use the following settings to configure Dynamic Data Archive.
#   archiver.coldStorageProvider       = Glacier
#   archiver.coldStorageRetentionPeriod = 365
#**************************************************************************
archiver.coldStorageProvider = <string>
* This feature is supported on Splunk Cloud only.
  Do not configure this setting in a Splunk Enterprise environment.
* Specifies the storage provider for Dynamic Data Archive.
* Optional. Only required when using Dynamic Data Archive.
* The only providers currently supported are Glacier and GCSArchive for AWS and GCP, respectively.

archiver.coldStorageRetentionPeriod = <unsigned integer>
* This feature is supported on Splunk Cloud only.
 Do not configure this setting in a Splunk Enterprise environment.
* Defines how long Splunk will maintain data in days, including the
  archived period.
* Optional. Only required when using Dynamic Data Archive.
* Must be greater than 0

archiver.enableDataArchive = <boolean>
* This feature is supported on Splunk Cloud only.
 Do not configure this setting in a Splunk Enterprise environment.
* If set to true, Dynamic Data Archiver is enabled for the index.
* Default: false

archiver.maxDataArchiveRetentionPeriod = <nonnegative integer>
* This feature is supported on Splunk Cloud only.
 Do not configure this setting in a Splunk Enterprise environment.
* The maximum total time in seconds, that data for the specified index is
  maintained by Splunk, including the archived period.
* The archiver.maxDataArchiveRetentionPeriod controls the maximum value of the
  coldStorageRetentionPeriod. coldStorageRetentionPeriod cannot exceed this
  value.
* Default: 0

#**************************************************************************
# Volume settings.  This section describes settings that affect the volume-
# optional and volume-mandatory settings only.
#
# All volume stanzas begin with "volume:". For example:
#   [volume:volume_name]
#   path = /foo/bar
#
# These volume stanzas can then be referenced by individual index
# settings, e.g. homePath or coldPath.  To refer to a volume stanza, use
# the "volume:" prefix. For example, to set a cold DB to the example stanza
# above, in index "hiro", use:
#   [hiro]
#   coldPath = volume:volume_name/baz
# This will cause the cold DB files to be placed under /foo/bar/baz.  If the
# volume spec is not followed by a path
# (e.g.  "coldPath=volume:volume_name"), then the cold path would be
# composed by appending the index name to the volume name ("/foo/bar/hiro").
#
# If "path" is specified with a URI-like value (e.g., "s3://bucket/path"),
# this is a remote storage volume.  A remote storage volume can only be
# referenced by a remotePath setting, as described above.  An Amazon S3
# remote path might look like "s3://bucket/path", whereas an NFS remote path
# might look like "file:///mnt/nfs".  The name of the scheme ("s3" or "file"
# from these examples) is important, because it can indicate some necessary
# configuration specific to the type of remote storage.  To specify a
# configuration under the remote storage volume stanza, you use settings
# with the pattern "remote.<scheme>.<param name>". These settings vary
# according to the type of remote storage.  For example, remote storage of
# type S3 might require that you specify an access key and a secret key.
# You would do this through the "remote.s3.access_key" and
# "remote.s3.secret_key" settings.
#
# Note: thawedPath may not be defined in terms of a volume.
# Thawed allocations are manually controlled by Splunk administrators,
# typically in recovery or archival/review scenarios, and should not
# trigger changes in space automatically used by normal index activity.
#**************************************************************************

storageType = local | remote
* Optional.
* Specifies whether the volume definition is for indexer local storage or remote
  storage. Only the 'remotePath' setting references a remote volume.
* Default: "local"

path = <path on server>
* Required.
* If storageType is set to its default value of "local":
  * The 'path' setting points to the location on the file system where al
    indexes that will use this volume reside.
   * This location must not overlap with the location for any other volume
     or index.
* If storageType is set to "remote":
  * The 'path' setting points to the remote storage location where indexes
    reside.
  * The format for this setting is: <scheme>://<remote-location-specifier>
    * The "scheme" identifies a supported external storage system type.
    * The "remote-location-specifier" is an external system-specific string for
      identifying a location inside the storage system.
    * For Google Cloud Storage, this is specified as "gs://<bucket-name>/path/to/splunk/db"

maxVolumeDataSizeMB = <positive integer>
* If set, this setting limits the total size of all databases that reside
  on this volume to the maximum size specified, in MB.  Note that this it
  will act only on those indexes which reference this volume, not on the
  total size of the path set in the 'path' setting of this volume.
* If the size is exceeded, splunkd removes buckets with the oldest value
  of latest time (for a given bucket) across all indexes in the volume,
  until the volume is below the maximum size. This is the trim operation.
  This can cause buckets to be chilled [moved to cold] directly
  from a hot DB, if those buckets happen to have the least value of
  latest-time (LT) across all indexes in the volume.
* The highest legal value is 4294967295.
* The lowest legal value is 1.
* Optional.
* This setting is ignored when 'storageType' is set to "remote" or
  when set to "local" and the volume contains any remote-storage enabled indexes.
```

```
rotatePeriodInSecs = <nonnegative integer>
* Optional, ignored for storageType=remote
* Specifies period of trim operation for this volume.
* The highest legal value is 4294967295.
* Default: The global 'rotatePeriodInSecs' value

remote.* = <string>
* With remote volumes, communication between the indexer and the external
  storage system may require additional configuration, specific to the type of
  storage system. You can pass configuration information to the storage
  system by specifying the settings through the following schema:
  remote.<scheme>.<config-variable> = <value>.
  For example: remote.s3.access_key = ACCESS_KEY
* Optional.

################################################################
##### S3 specific settings
################################################################

remote.s3.header.<http-method-name>.<header-field-name> = <string>
* Enable server-specific features, such as reduced redundancy, encryption,
  and so on, by passing extra HTTP headers with the REST requests.
  The <http-method-name> can be any valid HTTP method. For example, GET,
  PUT, or ALL, for setting the header field for all HTTP methods.
* Example: remote.s3.header.PUT.x-amz-storage-class = REDUCED_REDUNDANCY
* Optional.

remote.s3.access_key = <string>
* Specifies the access key to use when authenticating with the remote storage
  system supporting the S3 API.
* If not specified, the indexer will look for these environment variables:
  AWS_ACCESS_KEY_ID or AWS_ACCESS_KEY (in that order).
* If the environment variables are not set and the indexer is running on EC2,
  the indexer attempts to use the access key from the IAM role.
* Optional.
* No default.

remote.s3.secret_key = <string>
* Specifies the secret key to use when authenticating with the remote storage
  system supporting the S3 API.
* If not specified, the indexer will look for these environment variables:
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order).
* If the environment variables are not set and the indexer is running on EC2,
  the indexer attempts to use the secret key from the IAM role.
* Optional.
* No default.

remote.s3.list_objects_version = v1|v2
* The AWS S3 Get Bucket (List Objects) Version to use.
* See AWS S3 documentation "GET Bucket (List Objects) Version 2" for details.
* Default: v1

remote.s3.signature_version = v2|v4
* The signature version to use when authenticating with the remote storage
  system supporting the S3 API.
* For 'sse-kms' and 'sse-c' server-side encryption schemes, and for 'cse'
  client-side encryption scheme, you must use signature_version=v4.
* For signature_version=v2 you must set url_version=v1.
* Optional.
* Default: v4

remote.s3.url_version = v1|v2
* Specifies which url version to use, both for parsing the endpoint/path, and
* for communicating with the remote storage. This value only needs to be
* specified when running on non-AWS S3-compatible storage that has been configured
* to use v2 urls.
* In v1 the bucket is the first element of the path.
* Example: mydomain.com/bucketname/rest/of/path
* In v2 the bucket is the outermost subdomain in the endpoint.
* Exmaple: bucketname.mydomain.com/rest/of/path
* Default: v1

remote.s3.auth_region = <string>
* The authentication region to use for signing requests when interacting
  with the remote storage system supporting the S3 API.
* Used with v4 signatures only.
* If unset and the endpoint (either automatically constructed or explicitly
  set with remote.s3.endpoint setting) uses an AWS URL (for example,
  https://<bucketname>.s3-us-west-1.amazonaws.com), the instance attempts to extract
  the value from the endpoint URL (for example, "us-west-1").  See the
  description for the remote.s3.endpoint setting.
* If unset and an authentication region cannot be determined, the request
  will be signed with an empty region value.
* Optional.
* No default.

remote.s3.use_delimiter = <boolean>
* Specifies whether a delimiter (currently "guidSplunk") should be
  used to list the objects that are present on the remote storage.
* A delimiter groups objects that have the same delimiter value
  so that the listing process can be more efficient as it
  does not need to report similar objects.
* Optional.
* Default: true

remote.s3.supports_versioning = <boolean>
* Specifies whether the remote storage supports versioning.
* Versioning is a means of keeping multiple variants of an object
  in the same bucket on the remote storage.
* This setting determines how splunkd removes data from remote storage.
  If set to true, splunkd will delete all versions of objects at
  time of data removal. Otherwise, if set to false, splunkd will use a simple DELETE
  (See https://docs.aws.amazon.com/AmazonS3/latest/dev/DeletingObjectVersions.html).
* Optional.
* Default: true

remote.s3.endpoint = <URL>
* The URL of the remote storage system supporting the S3 API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified and the indexer is running on EC2, the endpoint will be
  constructed automatically based on the EC2 region of the instance where the
  indexer is running, as follows: https://<bucketname>.s3-<region>.amazonaws.com
* Example: https://<bucketname>.s3-us-west-2.amazonaws.com
* Optional.

remote.s3.bucket_name = <string>
* Specifies the S3 bucket to use when endpoint isn't set.
* Example
  path = s3://path/example
  remote.s3.bucket_name = mybucket
* Used for constructing the amazonaws.com hostname, as shown above.
* If neither endpoint nor bucket_name is specified, the bucket is assumed
  to be the first path element.
* Optional.

remote.s3.multipart_download.part_size = <unsigned integer>
* Sets the download size of parts during a multipart download.
* This setting uses HTTP/1.1 Range Requests (RFC 7233) to improve throughput
  overall and for retransmission of failed transfers.
* The special value of 0 disables downloading in multiple parts. In other
  words, files will always get downloaded as a single (large) part.
* Do not change this value unless that value has been proven to improve
  throughput.
* Optional.
* Minimum value: 5242880 (5 MB)
* Default: 134217728 (128 MB)
```

```
remote.s3.multipart_upload.part_size = <unsigned integer>
* Sets the upload size of parts during a multipart upload.
* The special value of 0 disables uploading in multiple parts. In other
  words, files will always get uploaded as a single (large) part.
* Optional.
* Minimum value: 5242880 (5 MB)
* Default: 134217728 (128 MB)

remote.s3.multipart_max_connections = <unsigned integer>
* Specifies the maximum number of HTTP connections to have in progress for
  either multipart download or upload.
* A value of 0 means unlimited.
* Default: 8

remote.s3.max_idle_connections = <unsigned integer>
* Specifies the maximum number of idle HTTP connections that can be pooled for
  reuse by the S3 client when connecting to the S3 server.
* A value of 0 means pooling of connections is disabled.
* Default: 25

remote.s3.enable_data_integrity_checks = <boolean>
* If set to true, Splunk sets the data checksum in the metadata field of the
  HTTP header during upload operation to S3.
* The checksum is used to verify the integrity of the data on uploads.
* Default: false

remote.s3.enable_signed_payloads  = <boolean>
* If set to true, Splunk signs the payload during upload operation to S3.
* Valid only for remote.s3.signature_version = v4
* Default: true

remote.s3.retry_policy = max_count
* Sets the retry policy to use for remote file operations.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times a file operation will be
    retried upon intermittent failure both for individual parts of a multipart
    download or upload and for files as a whole.
* Optional.
* Default: max_count

remote.s3.max_count.max_retries_per_part = <unsigned integer>
* When the 'remote.s3.retry_policy' setting is "max_count", sets the maximum number
  of times a file operation will be retried upon intermittent failure.
* The count is maintained separately for each file part in a multipart download
  or upload.
* Optional.
* Default: 9

remote.s3.max_count.max_retries_in_total = <unsigned integer>
* When the remote.s3.retry_policy setting is max_count, sets the maximum number
  of times a file operation will be retried upon intermittent failure.
* The count is maintained for each file as a whole.
* Optional.
* Default: 128

remote.s3.timeout.connect = <unsigned integer>
* Set the connection timeout, in milliseconds, to use when interacting
  with S3 for this volume
* Optional.
* Default: 5000

remote.s3.timeout.read = <unsigned integer>
* Set the read timeout, in milliseconds, to use when interacting with
  S3 for this volume
* Optional.
* Default: 60000
```

```
remote.s3.timeout.write = <unsigned integer>
* Set the write timeout, in milliseconds, to use when interacting with
  S3 for this volume
* Optional.
* Default: 60000

remote.s3.sslVerifyServerCert = <boolean>
* If this is set to true, Splunk verifies certificate presented by S3
  server and checks that the common name/alternate name matches the ones
  specified in 'remote.s3.sslCommonNameToCheck' and
  'remote.s3.sslAltNameToCheck'.
* Optional
* Default: false

remote.s3.sslVersions = <versions_list>
* Comma-separated list of SSL versions to connect to 'remote.s3.endpoint'.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* The special version "*" selects all supported versions.  The version "tls"
  selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list
  but does nothing.
* When configured in FIPS mode, ssl3 is always disabled regardless
  of this configuration.
* Optional.
* Default: tls1.2

remote.s3.sslCommonNameToCheck = <commonName1>, <commonName2>, ..
* If this value is set, and 'remote.s3.sslVerifyServerCert' is set to true,
  splunkd checks the common name of the certificate presented by
  the remote server (specified in 'remote.s3.endpoint') against this list
  of common names.
* Default: not set

remote.s3.sslAltNameToCheck = <alternateName1>, <alternateName2>, ..
* If this value is set, and 'remote.s3.sslVerifyServerCert' is set to true,
  splunkd checks the alternate name(s) of the certificate presented by
  the remote server (specified in 'remote.s3.endpoint') against this list of
  subject alternate names.
* No default.

remote.s3.sslRootCAPath = <path>
* Full path to the Certificate Authority (CA) certificate PEM format file
  containing one or more certificates concatenated together. S3 certificate
  will be validated against the CAs present in this file.
* Optional.
* Default: [sslConfig/caCertFile] in server.conf

remote.s3.cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for the SSL connection.
* If not set, uses the default cipher string.
* Must specify 'dhFile' to enable any Diffie-Hellman ciphers.
* Optional.
* Default: TLSv1+HIGH:TLSv1.2+HIGH:@STRENGTH

remote.s3.ecdhCurves = <comma-separated list>
* ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of Client Hello.
* Splunk software only supports named curves specified
  by their SHORT names.
* The list of valid named curves by their short/long names can be obtained
  by executing this command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* e.g. ecdhCurves = prime256v1,secp384r1,secp521r1
* Optional.
* No default.

remote.s3.dhFile = <path>
```

```
* PEM format Diffie-Hellman parameter file name.
* DH group size should be no less than 2048bits.
* This file is required in order to enable any Diffie-Hellman ciphers.
* Optional.
* No default.

remote.s3.encryption = sse-s3 | sse-kms | sse-c | cse | none
* The encryption scheme to use for data buckets that are currently being stored (data at rest).
* sse-s3: Search for "Protecting Data Using Server-Side Encryption with Amazon S3-Managed
          Encryption Keys" on the Amazon Web Services documentation site.
* sse-kms: Search for "Protecting Data Using Server-Side Encryption with CMKs Stored in AWS
           Key Management Service (SSE-KMS)" on the Amazon Web Services documentation site.
* sse-c: Search for "Protecting Data Using Server-Side Encryption with Customer-Provided Encryption
         Keys (SSE-C)" on the Amazon Web Services documentation site.
* cse:  Currently not supported. This setting is related to a feature that is still under development.
* none: no server-side encryption enabled. The Splunk platform stores the data unencrypted on the
  remote volume.
* Optional.
* Default: none

remote.s3.encryption.sse-c.key_type = kms
* Determines the mechanism Splunk uses to generate the key for sending over to
  S3 for SSE-C.
* The only valid value is 'kms', indicating Amazon Web Services Key Management Service (AWS KMS).
* One must specify required KMS settings: e.g. remote.s3.kms.key_id
  for Splunk to start up while using SSE-C.
* Optional.
* Default: kms

remote.s3.encryption.sse-c.key_refresh_interval = <unsigned integer>
* Specifies period in seconds at which a new key will be generated and used
  for encrypting any new data being uploaded to S3.
* Optional.
* Default: 86400

remote.s3.encryption.cse.algorithm = aes-256-gcm
* Currently not supported. This setting is related to a feature that is
  still under development.
* The encryption algorithm to use for bucket encryption while
  client-side encryption is enabled.
* Optional.
* Default: aes-256-gcm

remote.s3.encryption.cse.key_type = kms
* Currently not supported. This setting is related to a feature that is
  still under development.
* The mechanism that the Splunk platform uses to generate the key
  for client-side encryption.
* The only valid value is 'kms', indicating AWS KMS service.
* You must specify the required KMS settings, for example, 'remote.s3.kms.key_id'
  for the Splunk platform to start with client-side encryption active.
* Optional.
* Default: kms

remote.s3.encryption.cse.key_refresh_interval = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The interval, in seconds, at which the Splunk platform generates a new key and uses
  it to encrypt any data that it uploads to S3 when client-side encryption is active.
* Optional.
* Default: 86400

remote.s3.encryption.cse.tmp_dir = <path>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The full path to the directory where the Splunk platform temporarily stores encrypted files.
* Optional.
* Default: $SPLUNK_HOME/var/run/splunk/cse-tmp
```

```
remote.s3.kms.endpoint = <string>
* Indicates the host name to use when server-side or client-side encryption
  is enabled e.g. https://internal-kms.mycompany.com:8443
* If not set, SmartStore uses 'remote.s3.kms.auth_region' to
  determine the endpoint.
* Optional.
* No default.

remote.s3.kms.key_id = <string>
* Required if remote.s3.encryption = sse-c | sse-kms | cse
* Specifies the identifier for Customer Master Key (CMK) on KMS. It can be the
  unique key ID or the Amazon Resource Name (ARN) of the CMK or the alias
  name or ARN of an alias that refers to the CMK.
* Examples:
  Unique key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
  CMK ARN: arn:aws:kms:us-east-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
  Alias name: alias/ExampleAlias
  Alias ARN: arn:aws:kms:us-east-2:111122223333:alias/ExampleAlias
* No default.

remote.s3.kms.access_key = <string>
* Similar to 'remote.s3.access_key'.
* If not specified, KMS access uses 'remote.s3.access_key'.
* Optional.
* No default.

remote.s3.kms.secret_key = <string>
* Similar to 'remote.s3.secret_key'.
* If not specified, KMS access uses 'remote.s3.secret_key'.
* Optional.
* No default.

remote.s3.kms.auth_region = <string>
* Required if 'remote.s3.auth_region' is unset and Splunk can not
  automatically extract this information.
* Similar to 'remote.s3.auth_region'.
* If not specified, KMS access uses 'remote.s3.auth_region'.
* No default.

remote.s3.kms.max_concurrent_requests = <unsigned integer>
* Optional.
* Limits maximum concurrent requests to KMS from this Splunk instance.
* NOTE: Can severely affect search performance if set to very low value.
* Default: 10

remote.s3.kms.<ssl_settings> = <...>
* Optional.
* Check the descriptions of the SSL settings for remote.s3.<ssl_settings>
  above. e.g. remote.s3.sslVerifyServerCert.
* Valid ssl_settings are sslVerifyServerCert, sslVersions, sslRootCAPath,
  sslAltNameToCheck, sslCommonNameToCheck, cipherSuite, ecdhCurves, and dhFile.
* All of these settings are optional.
* All of these settings have the same defaults as
  'remote.s3.<ssl_settings>'.

remote.s3.max_download_batch_size = <unsigned integer>
* The maximum number of objects that can be downloaded in a single batch
  from remote storage. If the number of objects to be downloaded exceeds
  this value, the indexer downloads the objects in multiple batches.
* Default: 50

federated.provider = <provider_name>
* Identifies the federated provider on which this search is run.
* Select the stanza for the federated provider defined in the federated.conf file.
* Default: ""

federated.dataset = <string>
* Identifies the dataset located on the federated providers.
* The dataset takes a format of <prefix>:<remote_name>.
* Prefix can be an index, datamodel, or a saved search defined on the remote search head.
* If no <prefix> is defined, default value = index.
* Default: ""

################################################################
##### Google Cloud Storage settings
################################################################

remote.gs.credential_file = <credentials.json>
* Name of the json file with GCS credentials.
* For standalone indexers, this file must be located in the $SPLUNK_HOME/etc/auth
  directory.
* For indexer clusters, this file must be located either in the _cluster/local
  directory of the distributed bundle or the $SPLUNK_HOME/etc/auth directory.
  The distributed bundle location has precedence.
* You must set either this setting or 'service_account_email' to use
  custom credentials.
* The indexer tries different ways of providing credentials in the following order:
  1. This setting, for the json credential file, is used if it is set.
  2. The 'service_account_email' setting is used if it is set.
  3. The credential for the Compute Engine's default service_account is used.
  The last two methods both require that the indexer is running on GCP.
* The specified file is encrypted on startup.
* Optional if the indexer is running on GCP.
* Required if the indexer is not running on GCP.
* Default: Not set.

remote.gs.service_account_email = <email-address>
* Credential of the specified custom service_account is used.
* This service_account must be associated with every Compute Engine
  instance used with SmartStore-enabled indexer cluster.
* This setting uses GCP metadata server to get the credential. It requires
  the indexer to be running on GCP.
* This setting is used only if the 'credential_file' setting is unset. For
  more information, see the entry for the 'credential_file' setting.
* Optional
* Default: Not set.

remote.gs.project_id = <string>
* The ID of the GCP project associated with the volume.
* The project ID is a unique string across Google Cloud. It can found in GCP console.
* Required if 'remote.gs.encryption' is set to gcp-sse-c or gcp-sse-kms.
* Must be left unset if 'remote.gs.encryption' is set to gcp-sse-gcp.
* Default: Not set.

remote.gs.upload_chunk_size = <unsigned integer>
* Specifies the maximum size for file chunks in a parallel upload.
* Specify as bytes
* Minimum value: 5242880 (5 MB)
* Default: 33554432 (32MB)

remote.gs.download_chunk_size = <unsigned integer>
* Specifies the maximum size for file chunks in a parallel download.
* Specify as bytes
* Minimum value: 5242880 (5 MB)
* Default: 33554432 (32MB)

remote.gs.max_parallel_non_upload_threads = <unsigned integer>
* Number of threads used for parallel downloads and other async gcs
  operations, per index volume.
* This is the total count across all such operations.
* This does not include parallel upload operations, which are specified
  with the 'max_threads_per_parallel_upload' setting.
* For SmartStore, this is only used for parallel download of files.
* Default: 250

remote.gs.max_threads_per_parallel_upload = <unsigned integer>
* Number of threads used for a single parallel upload operation.
* Default: 64
```

```
remote.gs.max_connection_pool_size = <unsigned integer>
* Size of the connection pool to the remote storage per index volume.
* Default: 500

remote.gs.max_download_batch_size = <unsigned integer>
* The maximum number of objects that can be downloaded in a single batch
  from remote storage. If the number of objects to be downloaded exceeds
  this value, the indexer downloads the objects in multiple batches.
* Default: 50

remote.gs.remove_all_versions = <boolean>
* If true, a remove operation on an object explicitly deletes all versions
  of that object.
* Default: true

remote.gs.use_delimiter = <boolean>
* Specifies whether a delimiter (currently "guidSplunk") should be
  used to list the objects that are present on the remote storage.
* A delimiter groups objects that have the same delimiter value
  so that the listing process can be more efficient as it
  does not need to report similar objects.
* Optional.
* Default: true

remote.gs.retry_policy = max_count
* Sets the retry policy to use for remote file operations.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times an operation will be
    retried upon intermittent failure
* Default: max_count

remote.gs.max_count.max_retries_per_part = <unsigned integer>
* When the remote.gs.retry_policy setting is max_count, sets the maximum number
  of times a file operation will be retried upon intermittent failure.
* The count is maintained separately for each file part in a multipart download
  or upload.
* Default: 9

remote.gs.backoff.initial_delay_ms = <unsigned integer>
* If retries are enabled, an exponential backoff interval is used to perform
  the retries.
* This setting specifies the delay for the first retry, in milliseconds.
* Default: 3000 (3s)

remote.gs.backoff.max_delay_ms = <unsigned integer>
* If retries are enabled, an exponential backoff interval is used to perform
  the retries.
* This setting specifies the maximum delay before the next retry, in milliseconds
* Default: 60000 (60s)

remote.gs.backoff.scaling = <unsigned integer>
* If retries are enabled, an exponential backoff interval is used to perform
  the retries.
* This setting specifies the amount by which subsequent delays are scaled,
  upto max_delay_ms.
* Default: 2

remote.gs.connectUsingIpVersion = auto|4-only|6-only
* When making outbound connections to the storage service, this setting
  controls whether connections are made using IPv4 or IPv6.
* Connections to literal IPv4 or IPv6 addresses are unaffected by this setting.
* "4-only" : Splunkd only attempts to connect to the IPv4 address.
* "6-only" : Splunkd only attempts to connect to the IPv6 address.
* "auto":
    * If [general]/listenOnIPv6 in server.conf is set to "only", this defaults
      to "6-only"
    * Otherwise, this defaults to "4-only"
* Default: auto

remote.gs.sslVersionsForClient = ssl3|tls1.0|tls1.1|tls1.2
* Defines the minimum ssl/tls version to use for outgoing connections.
* Default: tls1.2

remote.gs.sslVerifyServerCert = <boolean>
* If set to true, Splunkd authenticates the certificate of the services
  it connects to by using the configured CA.
* Default: false.

remote.gs.sslVerifyServerName = <boolean>
* If set to true, Splunkd verifies that either the Common Name or Subject
  Alternate Name in the server certificate matches the hostname in the url it
  connects to.
* Default: false.

remote.gs.sslRootCAPath = <path>
* Full path to the Certificate Authority (CA) certificate PEM format file
  containing one or more certificates concatenated together. Google Storage and
  related service certificates will be validated against the CAs in this file.
* Default: value of [sslConfig]/caCertFile in server.conf

remote.gs.cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for the SSL connection.
* If not set, uses the default cipher string.
* Default: value of [sslConfig]/cipherSuite in server.conf

remote.gs.encryption = gcp-sse-c | gcp-sse-kms | gcp-sse-gcp
* The encryption scheme to use for index buckets while stored on GCS (data-at-rest).
* gcp-sse-c: Maps to GCP customer-supplied encryption keys. See Google Cloud documentation for details.
* gcp-sse-kms: Maps to GCP customer-managed encryption keys. See Google Cloud documentation for details.
* gcp-sse-gcp: Maps to GCP Google-managed encryption keys. See Google Cloud documentation for details.
* Google Cloud always encrypts the incoming data on the server side.
* For the gcp-sse-kms scheme, you must grant your Cloud Storage service account permission to use
  your Cloud KMS key. For more details, search for "Assigning a Cloud KMS key to a service account"
  on the Google Cloud documentation site. To find your Cloud Storage service account, search for
  "Getting the Cloud Storage service account".
* Default: gcp-sse-gcp

remote.gs.encryption.gcp-sse-c.key_type = gcp_kms
* Affects only the gcp-sse-c encryption scheme.
* Determines the mechanism the indexer uses to generate the key for sending data to GCS.
* The only valid value is 'gcp_kms', indicating Google Cloud Key Management Service (GCP KMS).
* You must also specify the required KMS settings: 'remote.gs.gcp_kms.locations',
  'remote.gs.gcp_kms.key_ring' and 'remote.gs.gcp_kms.key'. If you do not specify
  those settings, the indexer cannot start while using gcp-sse-c.
* Default: gcp_kms

remote.gs.encryption.gcp-sse-c.key_refresh_interval = <unsigned integer>
* Specifies the interval, in seconds, for generating a new key that is used
  for encrypting data uploaded to GCS.
* Default: 86400

remote.gs.gcp_kms.locations = <string>
* Required if 'remote.gs.encryption' is set to gcp-sse-c or gcp-sse-kms.
* Specifies the geographical regions where KMS key rings and keys are stored for access.
* Google Cloud offers three types of locations: regional ones such as "us-central1",
  dual-regional ones such as "nam4", and multi-regional ones such as "global" and "us".
  Search for "Cloud KMS locations" on the Google Cloud documentation site for a complete list.
* For best performance, choose a key ring and a key in the same location as the cloud stack.
* Default: none.

remote.gs.gcp_kms.key_ring = <string>
* Required if 'remote.gs.encryption' is set to gcp-sse-c or gcp-sse-kms.
* Specifies the name of the  key ring used for encryption when uploading data to GCS.
* In Google Cloud, a key ring is a grouping of keys for organizational purposes. A key ring
  belongs to a Google Cloud Project and resides in a specific location. Search for "key ring"
  on the Google Cloud documentation site for more details.
* Default: none.

remote.gs.gcp_kms.key = <string>
* Required if 'remote.gs.encryption' is set to gcp-sse-c or gcp-sse-kms.
* Specifies the name of the encryption key used for uploading data to GCS.
* Default: none.
```

indexes.conf.example

```
#   Version 8.2.0
#
# This file contains an example indexes.conf.  Use this file to configure
# indexing properties.
#
# To use one or more of these configurations, copy the configuration block
# into indexes.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#

# The following example defines a new high-volume index, called "hatch", and
# sets this to be the default index for both incoming data and search.
#
# Note that you may want to adjust the indexes that your roles have access
# to when creating indexes (in authorize.conf)

defaultDatabase = hatch

[hatch]

homePath   = $SPLUNK_DB/hatchdb/db
coldPath   = $SPLUNK_DB/hatchdb/colddb
thawedPath = $SPLUNK_DB/hatchdb/thaweddb
maxDataSize = 10000
maxHotBuckets = 10



# The following example changes the default amount of space used on a
# per-index basis.

[default]
maxTotalDataSizeMB = 650000
maxGlobalRawDataSizeMB = 0
maxGlobalDataSizeMB = 0


# The following example changes the time data is kept around by default.
# It also sets an export script.  NOTE: You must edit this script to set
# export location before running it.

[default]
maxWarmDBCount = 200
frozenTimePeriodInSecs = 432000
rotatePeriodInSecs = 30
coldToFrozenScript = "$SPLUNK_HOME/bin/python" "$SPLUNK_HOME/bin/myColdToFrozenScript.py"

# This example freezes buckets on the same schedule, but lets Splunk do the
# freezing process as opposed to a script
[default]
maxWarmDBCount = 200
frozenTimePeriodInSecs = 432000
```

```
rotatePeriodInSecs = 30
coldToFrozenDir = "$SPLUNK_HOME/myfrozenarchive"

### This example demonstrates the use of volumes ###

# volume definitions; prefixed with "volume:"

[volume:hot1]
path = /mnt/fast_disk
maxVolumeDataSizeMB = 100000

[volume:cold1]
path = /mnt/big_disk
# maxVolumeDataSizeMB not specified: no data size limitation on top of the
# existing ones

[volume:cold2]
path = /mnt/big_disk2
maxVolumeDataSizeMB = 1000000

# index definitions

[idx1]
homePath = volume:hot1/idx1
coldPath = volume:cold1/idx1

# thawedPath must be specified, and cannot use volume: syntax
# choose a location convenient for reconstitition from archive goals
# For many sites, this may never be used.
thawedPath = $SPLUNK_DB/idx1/thaweddb

[idx2]
# note that the specific indexes must take care to avoid collisions
homePath = volume:hot1/idx2
coldPath = volume:cold2/idx2
thawedPath = $SPLUNK_DB/idx2/thaweddb

[idx3]
homePath = volume:hot1/idx3
coldPath = volume:cold2/idx3
thawedPath = $SPLUNK_DB/idx3/thaweddb

[idx4]
datatype = metric
homePath = volume:hot1/idx4
coldPath = volume:cold2/idx4
thawedPath = $SPLUNK_DB/idx4/thaweddb
metric.maxHotBuckets = 6
metric.splitByIndexKeys = metric_name

### Indexes may be allocated space in effective groups by sharing volumes  ###

# perhaps we only want to keep 100GB of summary data and other
# low-volume information
[volume:small_indexes]
path = /mnt/splunk_indexes
maxVolumeDataSizeMB = 100000

# and this is our main event series, allowing 50 terabytes
[volume:large_indexes]
path = /mnt/splunk_indexes
maxVolumeDataSizeMB = 50000000

# summary and rare_data together will be limited to 100GB
[summary]
homePath=volume:small_indexes/summary/db
coldPath=volume:small_indexes/summary/colddb
thawedPath=$SPLUNK_DB/summary/thaweddb
# low-volume indexes probably don't want a lot of hot buckets
```

```
maxHotBuckets = 2
# if the volume is quite low, and you have data sunset goals you may
# want to have smaller buckets
maxDataSize = 500


[rare_data]
homePath=volume:small_indexes/rare_data/db
coldPath=volume:small_indexes/rare_data/colddb
thawedPath=$SPLUNK_DB/rare_data/thaweddb
maxHotBuckets = 2

# main, and any other large volume indexes you add sharing large_indexes
# will be together be constrained to 50TB, separately from the 100GB of
# the small_indexes
[main]
homePath=volume:large_indexes/main/db
coldPath=volume:large_indexes/main/colddb
thawedPath=$SPLUNK_DB/main/thaweddb
# large buckets and more hot buckets are desirable for higher volume
# indexes, and ones where the variations in the timestream of events is
# hard to predict.
maxDataSize = auto_high_volume
maxHotBuckets = 10

[idx1_large_vol]
homePath=volume:large_indexes/idx1_large_vol/db
coldPath=volume:large_indexes/idx1_large_vol/colddb
homePath=$SPLUNK_DB/idx1_large/thaweddb
# this index will exceed the default of .5TB requiring a change to maxTotalDataSizeMB
maxTotalDataSizeMB = 750000
maxDataSize = auto_high_volume
maxHotBuckets = 10
# but the data will only be retained for about 30 days
frozenTimePeriodInSecs = 2592000

### This example demonstrates database size constraining ###

# In this example per-database constraint is combined with volumes.  While a
# central volume setting makes it easy to manage data size across multiple
# indexes, there is a concern that bursts of data in one index may
# significantly displace data from others.  The homePath.maxDataSizeMB setting
# can be used to assure that no index will ever take more than certain size,
# therefore alleviating the concern.

# global settings

# will be inherited by all indexes: no database will exceed 1TB
homePath.maxDataSizeMB = 1000000

# volumes

[volume:caliente]
path = /mnt/fast_disk
maxVolumeDataSizeMB = 100000

[volume:frio]
path = /mnt/big_disk
maxVolumeDataSizeMB = 1000000

# and this is our main event series, allowing about 50 terabytes
[volume:large_indexes]
path = /mnt/splunk_indexes
maxVolumeDataSizeMB = 50000000

# indexes

[i1]
homePath = volume:caliente/i1
```

```
# homePath.maxDataSizeMB is inherited
coldPath = volume:frio/i1
# coldPath.maxDataSizeMB not specified: no limit - old-style behavior

thawedPath = $SPLUNK_DB/i1/thaweddb

[i2]
homePath = volume:caliente/i2
# overrides the default maxDataSize
homePath.maxDataSizeMB = 1000
coldPath = volume:frio/i2
# limits the cold DB's
coldPath.maxDataSizeMB = 10000
thawedPath = $SPLUNK_DB/i2/thaweddb

[i3]
homePath = /old/style/path
homePath.maxDataSizeMB = 1000
coldPath = volume:frio/i3
coldPath.maxDataSizeMB = 10000
thawedPath = $SPLUNK_DB/i3/thaweddb

# main, and any other large volume indexes you add sharing large_indexes
# will together be constrained to 50TB, separately from the rest of
# the indexes
[main]
homePath=volume:large_indexes/main/db
coldPath=volume:large_indexes/main/colddb
thawedPath=$SPLUNK_DB/main/thaweddb
# large buckets and more hot buckets are desirable for higher volume indexes
maxDataSize = auto_high_volume
maxHotBuckets = 10

### This example demonstrates how to configure a volume that points to
### S3-based remote storage and indexes that use this volume.  The setting
### "storageType=remote" indicates that this is a remote-storage volume.
### The "remotePath" parameter associates the index with that volume
### and configures a top-level location for uploading buckets.

[volume:s3]
storageType = remote
path = s3://remote_volume
remote.s3.bucket_name = example-s3-bucket
remote.s3.access_key = S3_ACCESS_KEY
remote.s3.secret_key = S3_SECRET_KEY

[default]
remotePath = volume:s3/$_index_name

[i4]
coldPath = $SPLUNK_DB/$_index_name/colddb
homePath = $SPLUNK_DB/$_index_name/db
thawedPath = $SPLUNK_DB/$_index_name/thaweddb

[i5]
coldPath = $SPLUNK_DB/$_index_name/colddb
homePath = $SPLUNK_DB/$_index_name/db
thawedPath = $SPLUNK_DB/$_index_name/thaweddb

### This example demonstrates how to configure a volume that points to
### GCS-based remote storage.
### "storageType=remote" indicates that this is a remote-storage volume.
### The "remotePath" parameter associates the index with that volume
### and configures a top-level location for uploading buckets.

[volume:gs]
storageType = remote
path = gs://test-bucket/some/path
remote.gs.credential_file = credentials.json
```

```
[default]
remotePath = volume:gs/$_index_name

[i6]
coldPath = $SPLUNK_DB/$_index_name/colddb
homePath = $SPLUNK_DB/$_index_name/db
thawedPath = $SPLUNK_DB/$_index_name/thaweddb
```

inputs.conf

以下为 inputs.conf 的规范和示例文件。

inputs.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains possible settings you can use to configure inputs,
# distributed inputs such as forwarders, and file system monitoring in
# inputs.conf.
#
# Each stanza controls different search commands settings.
#
# There is a inputs.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name inputs.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see inputs.conf.example.
# You must restart the Splunk instance to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file wins.
#   * If an setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

#############################################################################
# GENERAL SETTINGS:
# The following settings are valid for all input types (except file system
# change monitor, which is described in a separate section in this file).
# You must first enter a stanza header in square brackets, specifying the input
# type. See further down in this file for examples.
# Then, use any of the following settings.
#
# To specify global settings for Windows Event Log inputs, place them in
# the [WinEventLog] global stanza as well as the [default] stanza.
############################################################################

host = <string>
* Sets the host key/field to a static value for this input stanza.
* The input uses this field during parsing and indexing. It also uses this
  field at search time.
* As a convenience, the input prepends the chosen string with 'host::'.
* If set to '$decideOnStartup', sets the field to the hostname of executing
  machine. This occurs on each splunkd startup.
* If you run multiple instances of the software on the same machine (hardware
  or virtual machine), choose unique values for 'host' to differentiate
  your data, ex. myhost-sh-1 or myhost-idx-2.
* Do not put the <string> value in quotes. Use host=foo, not host="foo".
* If you set 'host' to "$decideOnStartup", you can further control how splunkd
  derives the hostname by using the 'hostnameOption' setting in server.conf.
  * For example, if you want splunkd to use the fully qualified domain
    name for the machine, set "host = $decideOnStartup" in inputs.conf and
    "hostnameOption = fullyqualifiedname" in server.conf.
  * More information on hostname options can be found in the server.conf
    specification file.
* If you remove the 'host' setting from $SPLUNK_HOME/etc/system/local/inputs.conf
  or remove $SPLUNK_HOME/etc/system/local/inputs.conf, the setting changes to
  "$decideOnStartup". Apps that need a resolved host value should use the
  'host_resolved' property in the response for the REST 'GET' call of the
  input source. This property is set to the hostname of the local Splunk
  instance. It is a read only  property that is not written to inputs.conf.
* Default: "$decideOnStartup", but at installation time, the setup logic
  adds the local hostname, as determined by DNS, to the
  $SPLUNK_HOME/etc/system/local/inputs.conf default stanza, which is the
  effective default value.

run_only_one= <boolean>
* Determines if a scripted or modular input runs on one search head
  in a SHC.
* Currently not supported. This setting is related to a feature that is
  still under development.
* Default: true

index = <string>
* Sets the index to store events from this input.
* Primarily used to specify the index to store events that come in through
  this input stanza.
* Default: main (or whatever you have set as your default index)

source = <string>
* Sets the source key/field for events from this input.
* Detail: Sets the source key initial value. The key is used during
  parsing/indexing, in particular to set the source field during
  indexing.  It is also the source field used at search time.
* As a convenience, the chosen string is prepended with 'source::'.
* Avoid overriding the source key. The input layer provides a more accurate
  string to aid in problem analysis and investigation, recording the file
  from which the data was retrieved. Consider using source types, tagging,
  and search wildcards before overriding this value.
* Do not put the <string> value in quotes: Use source=foo,
  not source="foo".
* Default: the input file path

sourcetype = <string>
* Sets the sourcetype key/field for events from this input.
* Explicitly declares the source type for this input instead of letting
  it be determined through automated methods. This is important for
  search and for applying the relevant configuration for this data type
  during parsing and indexing.
```

```
* Sets the sourcetype key initial value. The key is used during
  parsing or indexing to set the source type field during
  indexing. It is also the source type field used at search time.
* As a convenience, the chosen string is prepended with 'sourcetype::'.
* Do not put the <string> value in quotes: Use sourcetype=foo,
  not sourcetype="foo".
* If not set, the indexer analyzes the data and chooses a source type.
* No default.

queue = [parsingQueue|indexQueue]
* Sets the queue where the input processor should deposit the events it reads.
* Set to "parsingQueue" to apply the props.conf file and other parsing rules to
  your data. For more information about the props.conf file and rules
  timestamps and linebreaks, see the props.conf file and the
  online documentation at http://docs.splunk.com/Documentation.
* Set to "indexQueue" to send your data directly into the index.
* Default: parsingQueue

# Pipeline Key defaulting.

* Pipeline keys in general can be defaulted in inputs stanzas.
* The list of user-available, modifiable pipeline keys is described in
  transforms.conf.spec. See transforms.conf.spec for further information on
  these keys.
* The currently-defined keys which are available literally in inputs stanzas
  are as follows:

queue = <value>
_raw = <value>
_meta = <value>
_time = <value>

* Inputs have special support for mapping host, source, sourcetype, and index
  to their metadata names such as host -> Metadata:Host
* Defaulting these values is not recommended, and is
  generally only useful as a workaround to other product issues.
* Defaulting these keys in most cases will override the default behavior of
  input processors, but this behavior is not guaranteed in all cases.
* Values defaulted here, as with all values provided by inputs, can be
  altered by transforms at parse time.

############################################################################
# This section contains options for routing data using inputs.conf rather than
# outputs.conf.
#
# NOTE: concerning routing via inputs.conf:
# This is a simplified set of routing options you can use as data comes in.
# For more flexible options or details on configuring required or optional
# settings, see outputs.conf.spec.
############################################################################

_TCP_ROUTING = <tcpout_group_name>,<tcpout_group_name>,<tcpout_group_name>, ...
* A comma-separated list of tcpout group names.
* This setting lets you selectively forward data to specific indexer(s).
* Specify the tcpout group that the forwarder should use when forwarding the data.
  The tcpout group names are defined in outputs.conf with
  [tcpout:<tcpout_group_name>].
* To forward data to all tcpout group names that have been defined in
  outputs.conf, set to '*' (asterisk).
* To forward data from the "_internal" index, you must explicitly set '_TCP_ROUTING'
  to either "*" or a specific splunktcp target group.
* Default: The groups specified in 'defaultGroup' in [tcpout] stanza in
  outputs.conf file

_SYSLOG_ROUTING = <syslog_group_name>,<syslog_group_name>,<syslog_group_name>, ...
* A comma-separated list of syslog group names.
* Using this, you can selectively forward the data to specific destinations as
  syslog events.
* Specify the syslog group to use when forwarding the data.
```

```
  The syslog group names are defined in outputs.conf with
  [syslog:<syslog_group_name>].
* The destination host must be configured in outputs.conf, using
  "server=[<ip>|<servername>]:<port>".
* This setting does not work on a Universal Forwarder.
* Default: The groups present in "defaultGroup" in the [syslog] stanza in
  outputs.conf file

_INDEX_AND_FORWARD_ROUTING = <string>
* Only has effect if you use the 'selectiveIndexing' feature in outputs.conf.
* If set for any input stanza, should cause all data coming from that input
  stanza to be labeled with this setting.
* When 'selectiveIndexing' is in use on a forwarder:
  * data without this label will not be indexed by that forwarder.
  * data with this label will be indexed in addition to any forwarding.
* This setting does not actually cause data to be forwarded or not forwarded in
  any way, nor does it control where the data is forwarded in multiple-forward
  path cases.
* Default: not set
```

拒绝清单

```
[blacklist:<path>]
* Protects files on the file system from being indexed or previewed.
* The input treats a file as denied if the file starts with any of the
  defined deny list <paths>.
* Adding a file to the deny list with the specified path occurs even if a monitor
  stanza defines an allow list that matches the file path.
* The preview endpoint returns an error when asked to preview an
  excluded file.
* The oneshot endpoint and command also returns an error.
* When a denied file is monitored (monitor:// or batch://),
  the 'filestatus' endpoint shows an error.
* For fschange with the 'sendFullEvent' option enabled, contents of
  denied files are not indexed.
```

后跟有效的输入类型和特定于输入的设置：

监视器：

```
[monitor://<path>]
* Configures a file monitor input to watch all files in <path>.
* <path> can be an entire directory or a single file.
* You must specify the input type and then the path, so put three slashes in
  your path if you are starting at the root on *nix systems (to include the
  slash that indicates an absolute path).

# Additional settings:

host_regex = <regular expression>
* If specified, <regular expression> extracts host from the path to the file
  for each input file.
    * Detail: This feature examines the source key; if source is set
      explicitly in the stanza, that string is matched, not the original
      filename.
* Specifically, the first group of the regex is used as the host.
* If the regex fails to match, the default 'host' setting is used.
* If 'host_regex' and 'host_segment' are both set, the input ignores 'host_regex'.
* No default.

host_segment = <integer>
* If set to N, Splunk software sets the Nth "/"-separated segment of the path
  as 'host'.
    * For example, if host_segment=3 and the path is /logs/servers/host08/abc.txt,
    the third segment, "host08", is used.
* If the value is not an integer or is less than 1, the default 'host'
  setting is used.
* On Windows machines, the drive letter and colon before the backslash DOES NOT
  count as one segment.
    * For example, if you set host_segment=3 and the monitor path is
      D:\logs\servers\host01, Splunk software sets the host as "host01" because
      that is the third segment.
* No default.

whitelist = <regular expression>
* If set, files from this input are monitored only if their path matches the
  specified regex.
* Takes precedence over the deprecated '_whitelist' setting, which functions
  the same way.
* No default.

blacklist = <regular expression>
* If set, files from this input are NOT monitored if their path matches the
  specified regex.
* Takes precedence over the deprecated '_blacklist' setting, which functions
  the same way.
* If a file matches the regexes in both the deny list and allow list settings,
  the file is NOT monitored. Deny lists take precedence over allow lists.
* No default.

Note concerning wildcards and monitor:
* You can use wildcards to specify your input path for monitored inputs. Use
  "..." for recursive directory matching and "*" for wildcard matching in a
  single directory segment.
* "..." recurses through directories. This means that /foo/.../bar matches
  foo/1/bar, foo/1/2/bar, etc.
* You can use multiple "..." specifications in a single input path. For
  example: /foo/.../bar/...
* The asterisk (*) matches anything in a single path segment; unlike "...", it
  does not recurse. For example, /foo/*/bar matches the files
  /foo/1/bar, /foo/2/bar, etc. However, it does not match
  /foo/bar or /foo/1/2/bar.
  A second example: /foo/m*r/bar matches /foo/mr/bar, /foo/mir/bar,
  /foo/moor/bar, etc. It does not match /foo/mi/or/bar.
* You can combine "*" and "..." as needed: foo/.../bar/* matches any file in
  the bar directory within the specified path.
* A monitor stanza path will interpret regex metacharacters as strings unless
  they are preceded by the wildcard values "*" or "..." in a prior
  segment of the path.

crcSalt = <string>
* Use this setting to force the input to consume files that have matching CRCs
  (cyclic redundancy checks).
    * By default, the input only performs CRC checks against the first 256
      bytes of a file. This behavior prevents the input from indexing the same
      file twice, even though you might have renamed it, as with rolling log
      files, for example. Because the CRC is based on only the first
      few lines of the file, it is possible for legitimately different files
      to have matching CRCs, particularly if they have identical headers.
* If set, <string> is added to the CRC.
* If set to the literal string "<SOURCE>" (including the angle brackets), the
  full directory path to the source file is added to the CRC. This ensures
  that each file being monitored has a unique CRC. When 'crcSalt' is invoked,
  it is usually set to <SOURCE>.
* Be cautious about using this setting with rolling log files; it could lead
  to the log file being re-indexed after it has rolled.
* In many situations, 'initCrcLength' can be used to achieve the same goals.
* Default: empty string

initCrcLength = <integer>
* How much of a file, in bytes, that the input reads before trying to
  identify whether it is a file that has already been seen. You might want to
  adjust this if you have many files with common headers (comment headers,
  long CSV headers, etc) and recurring filenames.
* Cannot be less than 256 or more than 1048576.
* CAUTION: Improper use of this setting causes data to be re-indexed. You
  might want to consult with Splunk Support before adjusting this value - the
  default is fine for most installations.
* Default: 256 (bytes)

ignoreOlderThan = <non-negative integer>[s|m|h|d]
* The monitor input compares the modification time on files it encounters
  with the current time. If the time elapsed since the modification time
  is greater than the value in this setting, Splunk software puts the file
  on the ignore list.
* Files on the ignore list are not checked again until the Splunk
  platform restarts, or the file monitoring subsystem is reconfigured.  This
  is true even if the file becomes newer again at a later time.
  * Reconfigurations occur when changes are made to monitor or batch
    inputs through Splunk Web or the command line.
* Use 'ignoreOlderThan' to increase file monitoring performance when
  monitoring a directory hierarchy that contains many older, unchanging
  files, and when removing or adding a file to the deny list from the
  monitoring location is not a reasonable option.
* Do NOT select a time that files you want to read could reach in
  age, even temporarily. Take potential downtime into consideration!
  * Suggested value: 14d, which means 2 weeks
  * For example, a time window in significant numbers of days or small
    numbers of weeks are probably reasonable choices.
  * If you need a time window in small numbers of days or hours,
    there are other approaches to consider for performant monitoring
    beyond the scope of this setting.
* NOTE: Most modern Windows file access APIs do not update file
  modification time while the file is open and being actively written to.
  Windows delays updating modification time until the file is closed.
  Therefore you might have to choose a larger time window on Windows
  hosts where files may be open for long time periods.
* Value must be: <number><unit>. For example, "7d" indicates one week.
* Valid units are "d" (days), "h" (hours), "m" (minutes), and "s"
  (seconds).
* No default, meaning there is no threshold and no files are
  ignored for modification time reasons

followTail = <boolean>
* Whether or not the input should skip past current data in a monitored file
  for a given input stanza. This lets you skip over data in files, and
  immediately begin indexing current data.
* If you set to "1", monitoring starts at the end of the file (like
  *nix 'tail -f'). The input does not read any data that exists in
  the file when it is first encountered. The input only reads data that
  arrives after the first encounter time.
* If you set to "0", monitoring starts at the beginning of the file.
* This is an advanced setting. Contact Splunk Support before using it.
* Best practice for using this setting:
  * Enable this setting and start the Splunk instance.
  * Wait enough time for the input to identify the related files.
  * Disable the setting and restart the instance.
* Do not leave 'followTail' enabled in an ongoing fashion.
* Do not use 'followTail' for rolling log files (log files that get renamed as
  they age) or files whose names or paths vary.
* Default: 0

alwaysOpenFile = <boolean>
* Opens a file to check whether it has already been indexed, by skipping the
  modification time/size checks.
* Only useful for files that do not update modification time or size.
* Only known to be needed when monitoring files on Windows, mostly for
  Internet Information Server logs.
* Configuring this setting to "1" can increase load and slow indexing. Use it
  only as a last resort.
* Default: 0

time_before_close = <integer>
* The amount of time, in seconds, that the file monitor must wait for
  modifications before closing a file after reaching an End-of-File
  (EOF) marker.
* Tells the input not to close files that have been updated in the
  past 'time_before_close' seconds.
* Default: 3

multiline_event_extra_waittime = <boolean>
* By default, the file monitor sends an event delimiter when:
  * It reaches EOF of a file it monitors and
  * The last character it reads is a newline.
* In some cases, it takes time for all lines of a multiple-line event to
  arrive.
* Set to "true" to delay sending an event delimiter until the time that the
  file monitor closes the file, as defined by the 'time_before_close' setting,
  to allow all event lines to arrive.
* Default: false

recursive = <boolean>
* Whether or not the input monitors subdirectories that it finds within a
  monitored directory.
* If you set this setting to "false", the input does not monitor sub-directories
* Default: true

followSymlink = <boolean>
* Whether or not to follow any symbolic links within a monitored directory.
* If you set this setting to "false", the input ignores symbolic links
  that it finds within a monitored directory.
* If you set the setting to "true", the input follows symbolic links
  and monitors files at the symbolic link destination.
* Additionally, any allow lists or deny lists that the input stanza defines
  also apply to files at the symbolic link destination.
* Default: true

_whitelist = ...
* DEPRECATED.
* This setting is valid unless the 'whitelist' setting also exists.

_blacklist = ...
* DEPRECATED.
* This setting is valid unless the 'blacklist' setting also exists.
```

批次（Splunk Web 中的“上传文件”）：

```
Use the 'batch' input for large archives of historic data. If you
want to continuously monitor a directory or index small archives, use 'monitor'
(see above). 'batch' reads in the file and indexes it, and then deletes the
file on disk.

[batch://<path>]
* A one-time, destructive input of files in <path>.
* This stanza must include the 'move_policy = sinkhole' setting.
* This input reads and indexes the files, then DELETES THEM IMMEDIATELY.
* For continuous, non-destructive inputs of files, use 'monitor' instead.

# Additional settings:
```

```
move_policy = sinkhole
* This setting is required. You *must* include "move_policy = sinkhole"
  when you define batch inputs.
* This setting causes the input to load the file destructively.
* CAUTION: Do not use the 'batch' input type for files you do not want to
  delete after indexing.
* The 'move_policy' setting exists for historical reasons, but remains as a
  safeguard. As an administrator, you must explicitly declare
  that you want the data in the monitored directory (and its sub-directories) to
  be deleted after being read and indexed.

host_regex = see MONITOR, above.
host_segment = see MONITOR, above.
crcSalt = see MONITOR, above.
time_before_close = see MONITOR, above.

log_on_completion = <boolean>
* When set to false, this setting prevents Splunk software from logging to
  splunkd.log when it indexes files with this input.
* Default: true

# 'batch' inputs do not use the following setting:
# source = <string>

followSymlink = <boolean>
* Works similarly to the same setting for monitor, but does not delete files
  after following a symbolic link out of the monitored directory.

# The following settings work identically as for [monitor::] stanzas,
# documented above
host_regex = <regular expression>
host_segment = <integer>
crcSalt = <string>
recursive = <boolean>
whitelist = <regular expression>
blacklist = <regular expression>
initCrcLength = <integer>
time_before_close = <integer>
```

TCP:

```
[tcp://<remote server>:<port>]
* Configures the input to listen on a specific TCP network port.
* If a <remote server> makes a connection to this instance, the input uses this
  stanza to configure itself.
* If you do not specify <remote server>, this stanza matches all connections
  on the specified port.
* Generates events with source set to "tcp:<port>", for example: tcp:514
* If you do not specify a sourcetype, generates events with sourcetype
  set to "tcp-raw".

# Additional settings:

connection_host = [ip|dns|none]
* "ip" sets the host to the IP address of the system sending the data.
* "dns" sets the host to the reverse DNS entry for the IP address of the system
  sending the data.
* "none" leaves the host as specified in inputs.conf, typically the Splunk
  system hostname.
* Default: dns

queueSize = <integer>[KB|MB|GB]
* The maximum size of the in-memory input queue.
* Default: 500KB
```

```
persistentQueueSize = <integer>[KB|MB|GB|TB]
* Maximum size of the persistent queue file.
* Persistent queues can help prevent loss of transient data. For information on
  persistent queues and how the 'queueSize' and 'persistentQueueSize' settings
  interact, search the online documentation for "persistent queues".
* If you set this to a value other than 0, then 'persistentQueueSize' must
  be larger than either the in-memory queue size (as defined by the 'queueSize'
  setting in inputs.conf or 'maxSize' settings in [queue] stanzas in
  server.conf).
* Default: 0 (no persistent queue)

requireHeader = <boolean>
* Whether or not to require a header be present at the beginning of every
  stream.
* This header can be used to override indexing settings.
* Default: false

listenOnIPv6 = [no|yes|only]
* Whether or not the input listens on IPv4, IPv6, or both
* Set to 'yes' to listen on both IPv4 and IPv6 protocols.
* Set to 'only' to listen on only the IPv6 protocol.
* Default: The setting in the [general] stanza of the server.conf file

acceptFrom = <network_acl> ...
* Lists a set of networks or addresses from which to accept connections.
* Separate multiple rules with commas or spaces.
* Each rule can be in one of the following formats:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A Classless Inter-Domain Routing (CIDR) block of addresses
       (examples: "10/8", "192.168.1/24", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard
       (examples: "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches.
  For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

rawTcpDoneTimeout = <seconds>
* The amount of time, in seconds, that a network connection can remain idle
  before Splunk software declares that the last event over that connection
  has been received.
* If a connection over this port remains idle for more than
  'rawTcpDoneTimeout' seconds after receiving data, it adds a Done-key. This
  declares that the last event has been completely received.
* Default: 10

[tcp:<port>]
* Configures the input listen on the specified TCP network port.
* This stanza is similar to [tcp://<remote server>:<port>], but listens for
  connections to the specified port from any host.
* Generates events with a source of tcp:<port>.
* If you do not specify a sourcetype, generates events with a source type of
  tcp-raw.
* This stanza supports the following settings:

connection_host = [ip|dns|none]
queueSize = <integer>[KB|MB|GB]
persistentQueueSize = <integer>[KB|MB|GB|TB]
requireHeader = <boolean>
listenOnIPv6 = [no|yes|only]
acceptFrom = <network_acl> ...
rawTcpDoneTimeout = <integer>
```

数据分发：

```
# Global settings for splunktcp. Used on the receiving side for data forwarded
# from a forwarder.

[splunktcp]
route = [has_key|absent_key:<key>:<queueName>;...]
* Settings for the light forwarder.
* The receiver sets these parameters automatically -- you do not need to set
  them yourself.
* The property route is composed of rules delimited by ';' (semicolon).
* The receiver checks each incoming data payload through the cooked TCP port
  against the route rules.
* If a matching rule is found, the receiver sends the payload to the specified
  <queueName>.
* If no matching rule is found, the receiver sends the payload to the default
  queue specified by any queue= for this stanza. If no queue= key is set in
  the stanza or globally, the receiver sends the events to the parsingQueue.

enableS2SHeartbeat = <boolean>
* Specifies the global keepalive setting for all splunktcp ports.
* This option is used to detect forwarders which might have become unavailable
  due to network, firewall, or other problems.
* The receiver monitors each connection for presence of a heartbeat, and if the
  heartbeat is not seen for 's2sHeartbeatTimeout' seconds, it closes the
  connection.
* Default: true (heartbeat monitoring enabled)

s2sHeartbeatTimeout = <seconds>
* The amount of time, in seconds, that a receiver waits for heartbeats from
  forwarders that connect to this instance.
* The receiver closes a forwarder connection if it does not receive
  a heartbeat for 's2sHeartbeatTimeout' seconds.
* Default: 600 (10 minutes)

inputShutdownTimeout = <seconds>
* The amount of time, in seconds, that a receiver waits before shutting down
  inbound TCP connections after it receives a signal to shut down.
* Used during shutdown to minimize data loss when forwarders are connected to a
  receiver.
* During shutdown, the TCP input processor waits for 'inputShutdownTimeout'
  seconds and then closes any remaining open connections.
* If all connections close before the end of the timeout period,
  shutdown proceeds immediately, without waiting for the timeout.

stopAcceptorAfterQBlock = <seconds>
* Specifies the time, in seconds, to wait before closing the splunktcp port.
* If the receiver is unable to insert received data into the configured queue
  for more than the specified number of seconds, it closes the splunktcp port.
* This action prevents forwarders from establishing new connections to this
  receiver.
* Forwarders that have an existing connection will notice the port is closed
  upon test-connections and move to other receivers.
* Once the queue unblocks, and TCP Input can continue processing data, the
  receiver starts listening on the port again.
* This setting should not be adjusted lightly as extreme values can interact
  poorly with other defaults.
* Note: If there are multiple tcp/splunktcp listener ports configured,
  all listening ports will be shutdown regardless of whether other queues are
  blocked or not.
* Default: 300 (5 minutes)

listenOnIPv6 = no|yes|only
* Select whether this receiver listens on IPv4, IPv6, or both protocols.
* Set this to 'yes' to listen on both IPv4 and IPv6 protocols.
* Set to 'only' to listen on only the IPv6 protocol.
* If not present, the input uses the setting in the [general] stanza
```

```
  of server.conf.

acceptFrom = <network_acl> ...
* Lists a set of networks or IP addresses from which to accept connections.
* Specify multiple rules with commas or spaces.
* Each rule can be in the following forms:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A CIDR block of addresses (examples: "10/8", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard (examples:
       "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything.
* You can also prefix an entry with '!' to cause the rule to reject the
  connection.
* The input applies rules in order, and uses the first one that matches.
  For example, "!10.1/16, *" allows connections from everywhere
  except the 10.1.*.* network.
* Default: "*" (accept from anywhere)

negotiateProtocolLevel = <unsigned integer>
* If set, lets forwarders that connect to this receiver (or specific port)
  send data using only up to the specified feature level of the Splunk
  forwarder protocol.
* If set to a value that is lower than the default, denies the use
  of newer forwarder protocol features during connection negotiation. This
  might impact indexer efficiency.
* Default (if 'negotiateNewProtocol' is "true"): 1
* Default (if 'negotiateNewProtocol' is not "true"): 0

negotiateNewProtocol = <boolean>
* Controls the default configuration of the 'negotiateProtocolLevel' setting.
* DEPRECATED.
* Use the 'negotiateProtocolLevel' instead.
* Default: true

concurrentChannelLimit = <unsigned integer>
* The number of unique channel codes that are available for forwarders to
  use to communicate with an indexer.
* Each forwarder that connects to this indexer may use up to
  'concurrentChannelLimit' unique channel codes.
* In other words, each forwarder may have up to 'concurrentChannelLimit'
  channels in flight concurrently.
* The receiver closes a forwarder connection if a forwarder attempts to
  exceed this value.
* This setting only applies when the new forwarder protocol is in use.
* Default: 300

# Forwarder-specific settings for splunktcp.

[splunktcp://[<remote server>]:<port>]
* Receivers use this input stanza.
* This is the same as the [tcp://] stanza, except the remote server is assumed
  to be a Splunk instance, most likely a forwarder.
* <remote server> is optional. If you specify it, the receiver only listen for
  data from <remote server>.
  * Use of <remote server is not recommended. Use the 'acceptFrom' setting,
    which supersedes this setting.

connection_host = [ip|dns|none]
* For splunktcp, the 'host' or 'connection_host' is be used if the remote
  Splunk instance does not set a host, or if the host is set to
  "<host>::<localhost>".
* "ip" sets the host to the IP address of the system sending the data.
* "dns" sets the host to the reverse DNS entry for IP address of the system
  sending the data.
* "none" leaves the host as specified in inputs.conf, typically the Splunk
  system hostname.
* Default: ip

compressed = <boolean>
```

```
* Whether or not the receiver communicates with the forwarder in
  compressed format.
* Applies to non-Secure Sockets Layer (SSL) receiving only. There is no
  compression  setting required for SSL.
* If set to "true", the receiver communicates with the forwarder in
  compressed format.
* If set to "true", there is no longer a requirement to also set
  "compressed = true"  in the outputs.conf file on the forwarder.
* Default: false

enableS2SHeartbeat = <boolean>
* Specifies the keepalive setting for the splunktcp port.
* This option is used to detect forwarders which might have become unavailable
  due to network, firewall, or other problems.
* The receiver monitors the connection for presence of a heartbeat, and if it
  does not see the heartbeat in 's2sHeartbeatTimeout' seconds, it closes the
  connection.
* This overrides the default value specified at the global [splunktcp] stanza.
* Default: true (heartbeat monitoring enabled)

s2sHeartbeatTimeout = <integer>
* The amount of time, in seconds, that a receiver waits for heartbeats from
  forwarders that connect to this instance.
* The receiver closes the forwarder connection if it does not see a heartbeat
  for 's2sHeartbeatTimeout' seconds.
* This overrides the default value specified at the global [splunktcp] stanza.
* Default: 600 (10 minutes)

queueSize = <integer>[KB|MB|GB]
* The maximum size of the in-memory input queue.
* Default: 500KB

negotiateProtocolLevel = <unsigned integer>
* See the description for this setting in the [splunktcp] stanza.

negotiateNewProtocol = <boolean>
* See the description for this setting in the [splunktcp] stanza.

concurrentChannelLimit = <unsigned integer>
* See the description for this setting in the [splunktcp] stanza.

[splunktcp:<port>]
* This input stanza is the same as [splunktcp://[<remote server>]:<port>], but
  accepts connections from any server.
* See the online documentation for [splunktcp://[<remote server>]:<port>] for
  more information on the following supported settings:

connection_host = [ip|dns|none]
compressed = <boolean>
enableS2SHeartbeat = <boolean>
s2sHeartbeatTimeout = <integer>
queueSize = <integer>[KB|MB|GB]
negotiateProtocolLevel = <unsigned integer>
negotiateNewProtocol = <boolean>
concurrentChannelLimit = <unsigned integer>

# Access control settings.
[splunktcptoken://<token name>]
* Use this stanza to specify forwarders from which to accept data.
* You must configure a token on the receiver, then configure the same
  token on forwarders.
* The receiver discards data from forwarders that do not have the
  token configured.
* This setting is enabled for all receiving ports.
* This setting is optional.
* NOTE: When specifying a <token name>, you must use a specific format,
  as follows: NNNNNNNN-NNNN-NNNN-NNNN-NNNNNNNNNNNN. Failure to use this
  format results in the token being ignored.
  * For example, 'A843001F-B2B5-4F94-847D-D07802685BB2'
```

```
token = <string>
* Value of the token.
* Must be in the format NNNNNNNN-NNNN-NNNN-NNNN-NNNNNNNNNNNN. Failure to
  use this string format results in the token being ignored.

# SSL settings for data distribution:

[splunktcp-ssl:<port>]
* Use this stanza type if you are receiving encrypted, parsed data from a
  forwarder.
* Set <port> to the port on which the forwarder sends the encrypted data.
* Forwarder settings are set in outputs.conf on the forwarder.
* Compression for SSL is enabled by default. On the forwarder you can still
  specify compression with the 'useClientSSLCompression' setting in
  outputs.conf.
* The 'compressed' setting is used for non-SSL connections. However, if you
  still specify 'compressed' for SSL, ensure that the 'compressed' setting is
  the same as on the forwarder, as splunktcp protocol expects the same
  'compressed' setting from forwarders.

connection_host = [ip|dns|none]
* For splunktcp, the host or connection_host is used if the remote Splunk
  instance does not set a host, or if the host is set to "<host>::<localhost>".
* "ip" sets the host to the IP address of the system sending the data.
* "dns" sets the host to the reverse DNS entry for IP address of the system
  sending the data.
* "none" leaves the host as specified in inputs.conf, typically the Splunk
  system hostname.
* Default: ip

compressed = <boolean>
* See the description for this setting in the [splunktcp:<port>] stanza.

enableS2SHeartbeat = <boolean>
* See the description for this setting in the [splunktcp:<port>] stanza.

s2sHeartbeatTimeout = <seconds>
* See the description for this setting in the [splunktcp:<port>] stanza.

listenOnIPv6 = [no|yes|only]
* Select whether this receiver listens on IPv4, IPv6, or both protocols.
* Set to "yes" to listen on both IPv4 and IPv6 protocols.
* Set to "only" to listen on only the IPv6 protocol.
* Default: The setting in the [general] stanza of the server.conf file

acceptFrom = <network_acl> ...
* Lists a set of networks or IP addresses from which to accept connections.
* Specify multiple rules with commas or spaces.
* Each rule can be in the following forms:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A CIDR block of addresses (examples: "10/8", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard (examples:
       "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything.
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches. For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

negotiateProtocolLevel = <unsigned integer>
* See the description for this setting in the [splunktcp] stanza.

negotiateNewProtocol = <boolean>
* See the description for this setting in the [splunktcp] stanza.

concurrentChannelLimit = <unsigned integer>
* See the description for this setting in the [splunktcp] stanza.
```

```
# To specify global ssl settings, that are applicable for all ports, add the
# settings to the SSL stanza.
# Specify any ssl setting that deviates from the global setting here.
# For a detailed description of each ssl setting, refer to the [SSL] stanza.

serverCert = <path>
sslPassword = <password>
requireClientCert = <boolean>
sslVersions = <string>
cipherSuite = <cipher suite string>
ecdhCurves = <comma separated list of ec curves>
dhFile = <path>
allowSslRenegotiation = <boolean>
sslQuietShutdown = <boolean>
sslCommonNameToCheck = <commonName1>, <commonName2>, ...
sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
useSSLCompression = <boolean>

[tcp-ssl:<port>]
* Use this stanza type if you are receiving encrypted, unparsed data from a
  forwarder or third-party system.
* Set <port> to the port on which the forwarder/third-party system is sending
  unparsed, encrypted data.
* To create multiple SSL inputs, you can add the following attributes to each
[tcp-ssl:<port>] input stanza. If you do not configure a certificate in the
port, the certificate information is pulled from the default [SSL] stanza:
  * serverCert = <path_to_cert>
  * sslRootCAPath = <path_to_cert> Only add this setting if you
    have not configured the 'sslRootCAPath' setting in server.conf.
  * sslPassword = <password>

listenOnIPv6 = [no|yes|only]
* Select whether the receiver listens on IPv4, IPv6, or both protocols.
* Set to "yes" to listen on both IPv4 and IPv6 protocols.
* Set to "only" to listen on only the IPv6 protocol.
* If not present, the receiver uses the setting in the [general] stanza
  of server.conf.

acceptFrom = <network_acl> ...
* Lists a set of networks or IP addresses from which to accept connections.
* Specify multiple rules with commas or spaces.
* Each rule can be in the following forms:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A CIDR block of addresses (examples: "10/8", "fe80:1234/32")
    3. A DNS name, possibly with a '*' used as a wildcard (examples:
       "myhost.example.com", "*.splunk.com")
    4. A single '*', which matches anything.
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches. For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

# To specify global ssl settings, that are applicable for all ports, add the
# settings to the SSL stanza.
# Specify any ssl setting that deviates from the global setting here.
# For a detailed description of each ssl setting, refer to the [SSL] stanza.

serverCert = <path>
sslPassword = <password>
requireClientCert = <boolean>
sslVersions = <string>
cipherSuite = <cipher suite string>
ecdhCurves = <comma separated list of ec curves>
dhFile = <path>
allowSslRenegotiation = <boolean>
sslQuietShutdown = <boolean>
sslCommonNameToCheck = <commonName1>, <commonName2>, ...
```

```
sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
useSSLCompression = <boolean>

[SSL]
* Set the following specifications for receiving Secure Sockets Layer (SSL)
  communication underneath this stanza name.

serverCert = <path>
* The full path to the server certificate Privacy-Enhanced Mail (PEM)
  format file.
* PEM is the most common text-based storage format for SSL certificate files.
* No default.

sslPassword = <string>
* The server certificate password, if it exists.
* Initially set to plain-text password.
* Upon first use, the input encrypts and rewrites the password to
  $SPLUNK_HOME/etc/system/local/inputs.conf.

password = <string>
* DEPRECATED.
* Do not use this setting. Use the 'sslPassword' setting instead.

rootCA = <path>
* DEPRECATED.
* Do not use this setting. Use 'server.conf/[sslConfig]/sslRootCAPath' instead.
* Used only if 'sslRootCAPath' is not set.
* The <path> must refer to a PEM format file containing one or more root CA
  certificates concatenated together.

requireClientCert = <boolean>
* Determines whether a client must present an SSL certificate to authenticate.
* Default: false (if using self-signed and third-party certificates)
* Default: true (if using the default certificates, overrides the existing
  "false" setting)

sslVersions = <string>
* A comma-separated list of SSL versions to support.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2"
* The special version "*" selects all supported versions. The version "tls"
  selects all versions that begin with "tls".
* To remove a version from the list, prefix it with "-".
* SSLv2 is always disabled. Specifying "-ssl2" in the version list has
  no effect.
* When configured in Federal Information Processing Standard (FIPS) mode, the
  "ssl3" version is always disabled, regardless of this configuration.
* The default can vary. See the 'sslVersions' setting in
  $SPLUNK_HOME/etc/system/default/inputs.conf for the current default.

supportSSLV3Only = <boolean>
* DEPRECATED.
* SSLv2 is now always disabled.
* Use the 'sslVersions' setting to set the list of supported SSL versions.

cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for the input processors.
* Must specify 'dhFile' to enable any Diffie-Hellman ciphers.
* The default can vary. See the 'cipherSuite' setting in
  $SPLUNK_HOME/etc/system/default/inputs.conf for the current default.

ecdhCurveName = <string>
* DEPRECATED.
* Use the 'ecdhCurves' setting instead.
* This setting specifies the Elliptic Curve Diffie-Hellman (ECDH) curve to
  use for ECDH key negotiation.
* Splunk software only supports named curves that have been specified
  by their SHORT name.
* The list of valid named curves by their short and long names
  can be obtained by running this CLI command:
```

```
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Default: empty string

ecdhCurves = <comma-separated list>
* A list of ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of an SSL Client Hello.
* The server supports only the curves specified in the list.
* Splunk software only supports named curves that have been specified
  by their SHORT names.
* The list of valid named curves by their short and long names can be obtained
  by running this CLI command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Example setting: "ecdhCurves = prime256v1,secp384r1,secp521r1"
* The default can vary. See the 'ecdhCurves' setting in
  $SPLUNK_HOME/etc/system/default/inputs.conf for the current default.

dhFile = <path>
* Full path to the Diffie-Hellman parameter file.
* DH group size should be no less than 2048 bits.
* This file is required in order to enable any Diffie-Hellman ciphers.
* No default.

dhfile = <path>
* DEPRECATED.
* Use the 'dhFile' setting instead.

allowSslRenegotiation = <boolean>
* Whether or not to let SSL clients renegotiate their connections.
* In the SSL protocol, a client might request renegotiation of the connection
  settings from time to time.
* Setting this to false causes the server to reject all renegotiation
  attempts, which breaks the connection.
* This limits the amount of CPU a single TCP connection can use, but it can
  cause connectivity problems, especially for long-lived connections.
* Default: true

sslQuietShutdown = <boolean>
* Enables quiet shutdown mode in SSL.
* Default: false

sslCommonNameToCheck = <comma-separated list>
* Checks the common name of the client certificate against this list of names.
* If there is no match, assumes that the Splunk instance is not authenticated
  against this server.
* This setting is optional.
* For this setting to work, you must also set 'requireClientCert' to "true".
* Default: empty string (no common name checking)

sslAltNameToCheck = <comma-separated list>
* Checks the alternate name of the client certificate against this list of names.
* If there is no match, assumes that the Splunk instance is not authenticated
  against this server.
* This setting is optional.
* For this setting to work, you must also set 'requireClientCert' to "true".
* Default: empty string (no alternate name checking)

useSSLCompression = <boolean>
* If set to "true", the server allows forwarders to negotiate
  SSL-layer data compression.
* Default: The value of 'server.conf/[sslConfig]/allowSslCompression'
```

UDP:

```
[udp://<remote server>:<port>]
```

```
* Similar to the [tcp://] stanza, except that this stanza causes the Splunk
  instance to listen on a UDP port.
* Only one stanza per port number is currently supported.
* Configures the instance to listen on a specific port.
* If you specify <remote server>, the specified port only accepts data
  from that host.
* If <remote server> is empty - [udp://<port>] - the port accepts data sent
  from any host.
  * The use of <remote server> is not recommended. Use the 'acceptFrom'
    setting, which supersedes this setting.
* Generates events with source set to udp:portnumber, for example: udp:514
* If you do not specify a sourcetype, generates events with sourcetype set
  to udp:portnumber.

# Additional settings:

connection_host = [ip|dns|none]
* "ip" sets the host to the IP address of the system sending the data.
* "dns" sets the host to the reverse DNS entry for IP address of the system
  sending the data.
* "none" leaves the host as specified in inputs.conf, typically the Splunk
  system hostname.
* If the input is configured with a 'sourcetype' that has a transform that
  overrides the 'host' field e.g. 'sourcetype=syslog', that takes
  precedence over the host specified here.
* Default: ip

_rcvbuf = <integer>
* The receive buffer, in bytes, for the UDP port.
* If you set the value to 0 or a negative number, the input ignores the value.
* If the default value is too large for an OS, the instance tries to set
  the value to 1572864/2. If that value is also too large, the instance
  retries with 1572864/(2*2). It continues to retry by halving the value until
  it succeeds.
* Default: 1572864

no_priority_stripping = <boolean>
* Whether or not the input strips <priority> syslog fields from events it
  receives over the syslog input.
* If you set this setting to true, the instance does NOT strip the <priority>
  syslog field from received events.
* NOTE: Do NOT set this setting if you want to strip <priority>.
* Default: false

no_appending_timestamp = <boolean>
* Whether or not to append a timestamp and host to received events.
* If you set this setting to true, the instance does NOT append a timestamp
  and host to received events.
* NOTE: Do NOT set this setting if you want to append timestamp and host
  to received events.
* Default: false

queueSize = <integer>[KB|MB|GB]
* Maximum size of the in-memory input queue.
* Default: 500KB

persistentQueueSize = <integer>[KB|MB|GB|TB]
* Maximum size of the persistent queue file.
* Persistent queues can help prevent loss of transient data. For information on
  persistent queues and how the 'queueSize' and 'persistentQueueSize' settings
  interact, search the online documentation for "persistent queues"..
* If you set this to a value other than 0, then 'persistentQueueSize' must
  be larger than either the in-memory queue size (as defined by the 'queueSize'
  setting in inputs.conf or 'maxSize' settings in [queue] stanzas in
  server.conf).
* Default: 0 (no persistent queue)

listenOnIPv6 = <no | yes | only>
* Select whether the instance listens on the IPv4, IPv6, or both protocols.
* Set this to 'yes' to listen on both IPv4 and IPv6 protocols.
* Set to 'only' to listen on only the IPv6 protocol.
* If not present, the input uses the setting in the [general] stanza
  of server.conf.

acceptFrom = <network_acl> ...
* Lists a set of networks or IP addresses from which to accept connections.
* Specify multiple rules with commas or spaces.
* Each rule can be in the following forms:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A CIDR block of addresses (examples: "10/8", "fe80:1234/32")
    3. A DNS name, possibly with a "*"" used as a wildcard (examples:
       "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything.
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches.
  For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

[udp:<port>]
* This input stanza is the same as [udp://<remote server>:<port>], but does
  not have a <remote server> restriction.
* See the documentation for [udp://<remote server>:<port>] to configure
  supported settings:

connection_host = [ip|dns|none]
_rcvbuf = <integer>
no_priority_stripping = <boolean>
no_appending_timestamp = <boolean>
queueSize = <integer>[KB|MB|GB]
persistentQueueSize = <integer>[KB|MB|GB|TB]
listenOnIPv6 = <no | yes | only>
acceptFrom = <network_acl> ...
```

FIFO（先入先出队列）

```
[fifo://<path>]
* This stanza configures the monitoring of a FIFO at the specified path.

queueSize = <integer>[KB|MB|GB]
* Maximum size of the in-memory input queue.
* Default: 500KB

persistentQueueSize = <integer>[KB|MB|GB|TB]
* Maximum size of the persistent queue file.
* Persistent queues can help prevent loss of transient data. For information on
  persistent queues and how the 'queueSize' and 'persistentQueueSize' settings
  interact, search the online documentation for "persistent queues"..
* If you set this to a value other than 0, then 'persistentQueueSize' must
  be larger than either the in-memory queue size (as defined by the 'queueSize'
  setting in inputs.conf or 'maxSize' settings in [queue] stanzas in
  server.conf).
* Default: 0 (no persistent queue)
```

脚本式输入：

```
[script://<cmd>]
* Runs <cmd> at a configured interval (see below) and indexes the output
  that <cmd> returns.
* The <cmd> must reside in one of the following directories:
  * $SPLUNK_HOME/etc/system/bin/
  * $SPLUNK_HOME/etc/apps/$YOUR_APP/bin/
  * $SPLUNK_HOME/bin/scripts/
* The path to <cmd> can be an absolute path, make use of an environment
  variable such as $SPLUNK_HOME, or use the special pattern of an initial '.'
  as the first directory to indicate a location inside the current app.
  For more scripted input examples, search the documentation for
 "Add a scripted input with inputs.conf."
* <cmd> can also be a path to a file that ends with a ".path" suffix. A file
  with this suffix is a special type of pointer file that points to a command
  to be run. Although the pointer file is bound by the same location
  restrictions mentioned above, the command referenced inside it can reside
  anywhere on the file system. The .path file must contain exactly one line:
  the path to the command to run, optionally followed by command-line
  arguments. The file can contain additional empty lines and lines that begin
  with '#'. The input ignores these lines.

interval = [<decimal>|<cron schedule>]
* How often, in seconds, to run the specified command, or a valid "cron"
  schedule.
* If you specify the interval as a number, it may have a fractional
  component; for example, 3.14
* To specify a cron schedule, use the following format:
  * "<minute><hour><day of month><month><day of week>"
  * Cron special characters are acceptable. You can use combinations of "*",
  ",", "/", and "-" to specify wildcards, separate values, specify ranges
  of values, and step values.
* The cron implementation for data inputs does not currently support names
  of months or days.
* The special value 0 forces this scripted input to be run continuously.
  As soon as the script exits, the input restarts it.
* The special value -1 causes the scripted input to run once on start-up.
* NOTE: when you specify a cron schedule, the input does not run the
  script on start-up.
* Default: 60.0

passAuth = <username>
* User to run the script as.
* If you provide a username, the instance generates an auth token for that
  user and passes it to the script through stdin.
* No default.

python.version = {default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.

queueSize = <integer>[KB|MB|GB]
* Maximum size of the in-memory input queue.
* Default: 500KB

persistentQueueSize = <integer>[KB|MB|GB|TB]
* Maximum size of the persistent queue file.
* Persistent queues can help prevent loss of transient data. For information on
  persistent queues and how the 'queueSize' and 'persistentQueueSize' settings
  interact, search the online documentation for "persistent queues"..
* If you set this to a value other than 0, then 'persistentQueueSize' must
  be larger than either the in-memory queue size (as defined by the 'queueSize'
  setting in inputs.conf or 'maxSize' settings in [queue] stanzas in
  server.conf).
* Default: 0 (no persistent queue)

index = <string>
* The index where the scripted input sends the data.
* NOTE: The script passes this parameter as a command-line argument to <cmd> in
  the format: -index <index name>.
  If the script does not need the index info, it can ignore this argument.
```

```
* If you do not specify an index, the script uses the default index.

send_index_as_argument_for_path = <boolean>
* Whether or not to pass the index as an argument when specified for
  stanzas that begin with 'script://'
* When this setting is "true", the script passes the argument as
  '-index <index name>'.
* To avoid passing the index as a command line argument, set this to "false".
* Default: true

start_by_shell = <boolean>
* Whether or not to run the specified command through the operating system
  shell or command prompt.
* If you set this setting to "true", the host operating system runs the
  specified command through the OS shell ("/bin/sh -c" on *NIX,
  "cmd.exe /c" on Windows.)
* If you set the setting to "false", the input runs the program directly
  without attempting to expand shell metacharacters.
* You might want to explicitly set the setting to "false" for scripts
  that you know do not need UNIX shell metacharacter expansion. This is
  a Splunk best practice.
* Default (on *nix machines): true
* Default (on Windows machines): false
```

文件系统更改监视器 (fschange monitor)

```
#
# The file system change monitor has been deprecated as of Splunk Enterprise
# version 5.0 and might be removed in a future version of the product.
#
# You cannot simultaneously monitor a directory with both the 'fschange'
# and 'monitor' stanza types.
#

[fschange:<path>]
* Monitors changes (such as additions, updates, and deletions) to this
  directory and any of its sub-directories.
* <path> is the direct path. Do not preface it with '//' like with
  other inputs.
* Sends an event for every change.

disabled = <boolean>
* Whether or not the file system change monitor input is active.
* Set this setting to "true" to disable the input, and "false" to enable it.
* Default: false

# Additional settings:
# NOTE: The 'fschange' stanza type does not use the same settings as
# other input types. It uses only the following settings:

index = <string>
* The index where the input sends the data.
* Default: _audit (if you do not set 'signedaudit' or
  set 'signedaudit' to "false")
* Default: the default index (in all other cases)

signedaudit = <boolean>
* Whether or not to send cryptographically signed add/update/delete events.
* If this setting is "true", the input does the following to
  events that it generates:
  * Puts the events in the _audit index.
  * Sets the event sourcetype to 'audittrail'
* If this setting is "false", the input:
  * Places events in the default index.
  * Sets the sourcetype to whatever you specify (or "fs_notification"
    by default).
```

```
* You must set 'signedaudit' to "false" if you want to set the index for
  fschange events.
* You must also enable auditing in audit.conf.
* Default: false

filters = <comma-separated list>
* The fschange input applies each filter, left to right, for each file
  or directory found during the monitor poll cycle.
* See the "File System Monitoring Filters" section below for help
  on how to define a fschange filter.

recurse = <boolean>
* Whether or not the fschange input should look through all sub-directories
  for changes to files in a directory.
* If this setting is "true", the input recurses through
  sub-directories within the directory specified in [fschange].
* Default: true

followLinks = <boolean>
* Whether or not the fschange input should follow any symbolic
  links it encounters.
* If you set this setting to "true", the input follows symbolic links.
* CAUTION: Do not set this setting to "true" unless you can confirm that
  doing so will not create a file system loop (For example, in
  Directory A, symbolic link B points back to Directory A.)
* Default: false

pollPeriod = <integer>
* How often, in seconds, to check a directory for changes.
* Default: 3600 (1 hour)

hashMaxSize = <integer>
* Tells the fschange input to calculate a SHA256 hash for every file that
  is this size or smaller, in bytes.
* The input uses this hash as an additional method for detecting changes to the
  file/directory.
* Default: -1 (disabled)

fullEvent = <boolean>
* Whether or not to send the full event if the input detects an add or
  update change.
* Set to true to send the full event if an add or update change is detected.
* Further qualified by the 'sendEventMaxSize' setting.
* Default: false

sendEventMaxSize = <integer>
* The maximum size, in bytes, that an fschange event can be for the input to
  send the full event to be indexed.
* Limits the size of event data that the fschange input sends.
* This limits the size of indexed file data.
* Default: -1 (unlimited)

sourcetype = <string>
* Sets the source type for events from this input.
* The input automatically prepends "sourcetype=" to <string>.
* Default (if you set the 'signedaudit' setting to "true"): audittrail
* Default (if you set the 'signedaudit' setting to "false"): fs_notification

host = <string>
* Sets the host name for events from this input.
* Default: whatever host sent the event

filesPerDelay = <integer>
* The number of files that the fschange input processes between processing
  delays, as specified by the 'delayInMills' setting.
* After a delay of 'delayInMills' milliseconds, the fschange input processes
  'filesPerDelay' files, then waits 'delayInMills' milliseconds again before
  repeating this process.
* This setting helps throttle file system monitoring so it consumes less CPU.
* Default: 10

delayInMills = <integer>
* The delay, in milliseconds, that the fschange input waits between
  processing 'filesPerDelay' files.
* After a delay of 'delayInMills' milliseconds, the fschange input processes
  'filesPerDelay' files, then waits 'delayInMills' milliseconds again before
  repeating this process.
* This setting helps throttle file system monitoring so it consumes less CPU.
* Default: 100
```

文件系统监视过滤器：

```
[filter:<filtertype>:<filtername>]
* Defines a filter of type <filtertype> and names it <filtername>.
* <filtertype>:
  * Filter types are either 'blacklist' or 'whitelist.'
  * An allow list filter processes all file names that match the
    regular expression list that you define within the stanza.
  * A deny list filter skips all file names that match the
    regular expression list.
* <filtername>
  * The fschange input uses filter names that you specify with
    the 'filters' setting for a given fschange stanza.
  * You can specify multiple filters by separating them with commas.

regex<integer> = <regular expression>
* Deny list and allow list filters can include a set of regular expressions.
* The name of each regular expression MUST be 'regex<integer>', where <integer>
  starts at 1 and increments by 1.
* The input applies each regular expression in numeric order:
  regex1=<regular expression>
  regex2=<regular expression>
  ...
```

http：（HTTP 事件收集器）

```
# Global settings for the HTTP Event Collector (HEC) Input.

[http]
port = <positive integer>
* The event collector data endpoint server port.
* Default: 8088

disabled = <boolean>
* Whether or not the event collector input is active.
* Set this setting to "1" to disable the input, and "0" to enable it.
* Default: 1 (disabled)

outputgroup = <string>
* The name of the output group that the event collector forwards data to.
* Default: empty string

useDeploymentServer = <boolean>
* Whether or not the HTTP event collector input should write its
  configuration to a deployment server repository.
* When you enable this setting, the input writes its
  configuration to the directory that you specify with the
  'repositoryLocation' setting in the serverclass.conf file.
* You must copy the full contents of the splunk_httpinput app directory
  to this directory for the configuration to work.
```

```
* When enabled, only the tokens defined in the splunk_httpinput app in this
  repository are viewable and editable through the API and Splunk Web.
* When disabled, the input writes its configuration to
  $SPLUNK_HOME/etc/apps by default.
* Default: 0 (disabled)

index = <string>
* The default index to use.
* Default: the "default" index

sourcetype = <string>
* The default source type for the events that the input generates.
* If you do not specify a sourcetype, the input does not set a sourcetype
  for events it generates.

enableSSL = <boolean>
* Whether or not the HTTP Event Collector uses SSL.
* HEC shares SSL settings with the Splunk management server and cannot have
  SSL enabled when the Splunk management server has SSL disabled.
* Default: 1 (enabled)

dedicatedIoThreads = <number>
* The number of dedicated input/output threads in the event collector
  input.
* Default: 0 (The input uses a single thread)

replyHeader.<name> = <string>
* Adds a static header to all HTTP responses that this server generates.
* For example, "replyHeader.My-Header = value" causes the
  response header "My-Header: value" to be included in the reply to
  every HTTP request made to the event collector endpoint server.
* No default.

maxSockets = <integer>
* The number of HTTP connections that the HTTP event collector input
  accepts simultaneously.
* Set this setting to constrain resource usage.
* If you set this setting to 0, the input automatically sets it to
  one third of the maximum allowable open files on the host.
* If this value is less than 50, the input sets it to 50. If this value
  is greater than 400000, the input sets it to 400000.
* If set to a negative value, the input does not enforce a limit on
  connections.
* Default: 0

maxThreads = <integer>
* The number of threads that can be used by active HTTP transactions.
* Set this to constrain resource usage.
* If you set this setting to 0, the input automatically sets the limit to
  one third of the maximum allowable threads on the host.
* If this value is less than 20, the input sets it to 20. If this value is
  greater than 150000, the input sets it to 150000.
* If the 'maxSockets' setting has a positive value and 'maxThreads'
  is greater than 'maxSockets', then the input sets 'maxThreads' to be equal
  to 'maxSockets'.
* If set to a negative value, the input does not enforce a limit on threads.
* Default: 0

keepAliveIdleTimeout = <integer>
* How long, in seconds, that the HTTP Event Collector input lets a keep-alive
  connection remain idle before forcibly disconnecting it.
* If this value is less than 7200, the input sets it to 7200.
* Default: 7200

busyKeepAliveIdleTimeout = <integer>
* How long, in seconds, that the HTTP Event Collector lets a keep-alive
  connection remain idle while in a busy state before forcibly disconnecting it.
* CAUTION: Setting this to a value that is too large
  can result in file descriptor exhaustion due to idling connections.
```

```
* If this value is less than 12, the input sets it to 12.
* Default: 12

serverCert = <path>
* The full path to the server certificate PEM format file.
* The same file may also contain a private key.
* Splunk software automatically generates certificates when it first
  starts.
* You may replace the auto-generated certificate with your own certificate.
* Default: $SPLUNK_HOME/etc/auth/server.pem

sslKeysfile = <filename>
* DEPRECATED.
* Use the 'serverCert' setting instead.
* The file that contains the SSL keys. Splunk software looks for this file
  in the directory specified by 'caPath'.
* Default: server.pem

sslPassword = <string>
* The server certificate password.
* Initially set to a plain-text password.
* Upon first use, Splunk software encrypts and rewrites the password.
* Default: password

sslKeysfilePassword = <string>
* DEPRECATED.
* Use the 'sslPassword' setting instead.

caCertFile = <string>
* DEPRECATED.
* Use the 'server.conf:[sslConfig]/sslRootCAPath' setting instead.
* Used only if you do not set the 'sslRootCAPath' setting.
* Specifies the file name (relative to 'caPath') of the CA
  (Certificate Authority) certificate PEM format file that contains one or
  more certificates concatenated together.
* Default: cacert.pem

caPath = <string>
* DEPRECATED.
* Use absolute paths for all certificate files.
* If certificate files given by other settings in this stanza are not absolute
  paths, then they are relative to this path.
* Default: $SPLUNK_HOME/etc/auth

sslVersions = <comma-separated list>
* A comma-separated list of SSL versions to support.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2"
* The special version "*" selects all supported versions. The version "tls"
  selects all versions "tls1.0" or newer.
* To remove a version from the list, prefix it with "-".
* SSLv2 is always disabled. Specifying "-ssl2" in the version list
  has no effect.
* When configured in Federal Information Processing Standard (FIPS) mode, the
  "ssl3" version is always disabled, regardless of this configuration.
* Default: *,-ssl2  (anything newer than SSLv2)

cipherSuite = <string>
* The cipher string to use for the HTTP Event Collector input.
* Use this setting to ensure that the server does not accept connections using
  weak encryption protocols.
* If you set this setting, the input uses the specified cipher string for
  the HTTP server.
* Default: The default cipher string that 'OpenSSL' provides

listenOnIPv6 = [no|yes|only]
* Whether or not this input listens on IPv4, IPv6, or both.
* Set to "no" to make the input listen only on the IPv4 protocol.
* Set to "yes" to make the input listen on both IPv4 and IPv6 protocols.
* Set to "only" to make the input listen on only the IPv6 protocol.
* Default: The setting in the [general] stanza of the server.conf file

acceptFrom = <network_acl> ...
* A list of networks or IP addresses from which to accept connections.
* Specify multiple rules with commas or spaces.
* Each rule can be in the following forms:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A CIDR block of addresses (examples: "10/8", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard (examples:
       "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything.
* You can also prefix an entry with "!" to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches. For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

requireClientCert = <boolean>
* Requires that any client connecting to the HEC port has a certificate that
  can be validated by the certificate authority specified in the
  'caCertFile' setting.
* Default: false

ecdhCurveName = <string>
* DEPRECATED.
* Use the 'ecdhCurves' setting instead.
* This setting specifies the ECDH curve to use for ECDH key negotiation.
* Splunk software only supports named curves that have been specified by their
  SHORT names.
* The list of valid named curves by their short or long names
  can be obtained by executing this command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Default: empty string

ecdhCurves = <comma-separated list>
* ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of Client Hello.
* The server supports only the curves specified in the list.
* Splunk software only supports named curves that have been specified by their
  SHORT names.
* The list of valid named curves by their short or long names can be obtained
  by executing this command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Example setting: ecdhCurves = prime256v1,secp384r1,secp521r1
* Default: empty string

crossOriginSharingPolicy = <origin_acl> ...
* A list of the HTTP Origins for which to return Access-Control-Allow-*
  Cross-origin Resource Sharing (CORS) headers.
* These headers tell browsers that web applications at those sites
  can be trusted to make requests to the REST interface.
* The origin is passed as a URL without a path component (for example
  "https://app.example.com:8000").
* This setting can take a list of acceptable origins, separated
  by spaces and/or commas.
* Each origin can also contain wildcards for any part.  Examples:
    * *://app.example.com:*  (either HTTP or HTTPS on any port)
    * https://*.example.com  (any host under example.com, including
      example.com itself).
* An address can be prefixed with a '!' to negate the match, with
  the first matching origin taking precedence. Example:
    * "!*://evil.example.com:* *://*.example.com:*" to not avoid
      matching one host in a domain.
* "*" matches all origins.
* Default: empty string

crossOriginSharingHeaders = <string>
* A list of the HTTP headers to which splunkd sets
```

```
  "Access-Control-Allow-Headers" when replying to
  Cross-Origin Resource Sharing (CORS) preflight requests.
* The "Access-Control-Allow-Headers" header is used in response to
  a CORS preflight request to tell browsers which HTTP headers can be
  used during the actual request.
* A CORS preflight request is a CORS request that checks to see if
  the CORS protocol is understood and a server is aware of using
  specific methods and headers.
* This setting can take a list of acceptable HTTP headers, separated
  by commas.
* A single "*" can also be used to match all headers.
* Default: empty string

forceHttp10 = [auto|never|always]
* Whether or not the REST HTTP server forces clients that connect
  to it to use the HTTP 1.0 specification for web communications.
* When set to "always", the REST HTTP server does not use some
  HTTP 1.1 features such as persistent connections or chunked
  transfer encoding.
* When set to "auto", it does this only if the client did not send
  a User-Agent header, or if the user agent is known to have bugs
  in its support of HTTP/1.1.
* When set to "never" it always allows HTTP 1.1, even to
  clients it suspects might be buggy.
* Default: auto

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* A list of SSL Common Names to match against certificates that incoming
  HTTPS connections present to this instance.
* If you configure this setting and also set 'requireClientCert' to "true",
  splunkd limits most inbound HTTPS connections to hosts that use
  a cert with one of the listed common names.
* The most important scenario to use this setting is distributed search.
* This feature does not work with the deployment server and client
  communication over SSL.
* This setting is optional.
* Default: empty string (no common name checking)

sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
* If you set this setting and also set 'requireClientCert' to true,
  splunkd can verify certificates that have a so-called
  "Subject Alternate Name" that matches any of the alternate
  names in this list.
  * Subject Alternate Names are effectively extended descriptive
    fields in SSL certs beyond the commonName. A common practice for
    HTTPS certs is to use these values to store additional valid
    hostnames or domains where the cert should be considered valid.
* Accepts a comma-separated list of Subject Alternate Names to consider
  valid.
* Items in this list are never validated against the SSL Common Name.
* This feature does not work with the deployment server and client
  communication over SSL.
* This setting is optional.
* Default: empty string (no alternate name checking)

sendStrictTransportSecurityHeader = <boolean>
* Whether or not to force inbound connections to always use SSL with
  the "Strict-Transport-Security" header..
* If set to "true", the REST interface sends a "Strict-Transport-Security"
  header with all responses to requests made over SSL.
* This can help prevent a client being tricked later by a Man-In-The-Middle
  attack to accept a non-SSL request. However, this requires a commitment that
  no non-SSL web hosts will ever be run on this hostname on any port. For
  example, if Splunk Web is in default non-SSL mode this can break the
  ability of the browser to connect to it. Enable with caution.
* Default: false

allowSslCompression = <boolean>
* Whether or not to allow data compression over SSL.
* If set to "true", the server allows clients to negotiate
  SSL-layer data compression.
* Default: true

allowSslRenegotiation = <boolean>
* Whether or not to let SSL clients renegotiate their connections.
* In the SSL protocol, a client may request renegotiation of the connection
  settings from time to time.
* Setting this to false causes the server to reject all renegotiation
  attempts, which breaks the connection.
* This limits the amount of CPU a single TCP connection can use, but it can
  cause connectivity problems, especially for long-lived connections.
* Default: true

ackIdleCleanup = <boolean>
* Whether or not to remove ACK channels that have been idle after a period
  of time, as defined by the 'maxIdleTime' setting.
* If set to "true", the server removes the ACK channels that are idle
  for 'maxIdleTime' seconds.
* Default: true

maxIdleTime = <integer>
* The maximum amount of time, in seconds, that ACK channels can be idle
  before they are removed.
* If 'ackIdleCleanup' is "true", the system removes ACK channels that have
  been idle for 'maxIdleTime' seconds.
* Default: 600 (10 minutes)

channel_cookie = <string>
* The name of the cookie to use when sending data with a specified channel ID.
* The value of the cookie is the channel sent. For example, if you have
  set 'channel_cookie=foo' and sent a request with channel ID set to 'bar',
  then you will have a cookie in the response with the value 'foo=bar'.
* If no channel ID is present in the request, then no cookie is returned.
* This setting is to be used for load balancers (for example, AWS ELB) that can
  only provide sticky sessions on cookie values and not general header values.
* If no value is set (the default), then no cookie is returned.
* Default: empty string (no cookie)

maxEventSize = <positive integer>[KB|MB|GB]
* The maximum size of a single HEC (HTTP Event Collector) event.
* HEC disregards and triggers a parsing error for events whose size is
  greater than 'maxEventSize'.
* Default: 5MB
```

HTTP 事件收集器（HEC）-每个标记的本地段落

```
[http://name]

token = <string>
* The value of the HEC token.
* HEC uses this token to authenticate inbound connections. Your application
  or web client must present this token when attempting to connect to HEC.
* No default.

disabled = <boolean>
* Whether or not this token is active.
* Default: 0 (enabled)

description = <string>
* A human-readable description of this token.
* Default: empty string

indexes = <string>
```

```
* The indexes that events for this token can go to.
* If you do not specify this value, the index list is empty, and any index
  can be used.
* No default.

index = <string>
* The default index to use for this token.
* Default: the default index

sourcetype = <string>
* The default sourcetype to use if it is not specified in an event.
* Default: empty string

outputgroup = <string>
* The name of the forwarding output group to send data to.
* Default: empty string

queueSize = <integer>[KB|MB|GB]
* The maximum size of the in-memory input queue.
* Default: 500KB

persistentQueueSize = <integer>[KB|MB|GB|TB]
* Maximum size of the persistent queue file.
* Persistent queues can help prevent loss of transient data. For information on
  persistent queues and how the 'queueSize' and 'persistentQueueSize' settings
  interact, search the online documentation for "persistent queues"..
* If you set this to a value other than 0, then 'persistentQueueSize' must
  be larger than either the in-memory queue size (as defined by the
  'queueSize' setting in inputs.conf or 'maxSize' settings in [queue] stanzas
  in server.conf).
* Default: 0 (no persistent queue)

connection_host = [ip|dns|proxied_ip|none]
* Specifies the host if an event doesn't have a host set.
* "ip" sets the host to the IP address of the system sending the data.
* "dns" sets the host to the reverse DNS entry for IP address of the system
  sending the data.
* "proxied_ip" checks whether an X-Forwarded-For header was sent
  (presumably by a proxy server) and if so, sets the host to that value.
  Otherwise, the IP address of the system sending the data is used.
* "none" leaves the host as specified in the HTTP header.
* No default.

useACK = <boolean>
* When set to "true", acknowledgment (ACK) is enabled. Events in a request
  are tracked until they are indexed. An events status (indexed or not) can be
  queried from the ACK endpoint with the ID for the request.
* When set to false, acknowledgment is not enabled.
* This setting can be set at the stanza level.
* Default: false

allowQueryStringAuth = <boolean>
* Enables or disables sending authorization tokens with a query string.
* This is a token level configuration. It may only be set for
  a particular token.
* To use this feature, set to "true" and configure the client application to
  include the token in the query string portion of the URL they use to send data to HEC in the following format:
  "https://<URL>?<your=query-string>&token=<your-token>" or
  "https://<URL>?token=<your-token>" if the token is the first element in the
  query string.
* If a token is sent in both the query string and an HTTP header, the token in
  the query string takes precedence, even if this feature is disabled. In
  other words, if a token is present in the query string, any token in the
  header for that request is not used.
* NOTE: Query strings may be observed in transit and/or logged in cleartext.
  There is no confidentiality protection for the transmitted tokens.
    * Before using this in production, consult security personnel in your
      organization to understand and plan to mitigate the risks.
    * At a minimum, always use HTTPS when you enable this feature. Check your
```

```
      client application, proxy, and logging configurations to confirm that
      the token is not logged in clear text.
    * Give minimal access permissions to the token in HEC and restrict the
      use of the token only to trusted client applications.
* Default: false
```

WINDOWS 输入：

```
* Windows platform specific input processor.
# ***********
# Splunk software on Windows ships with several Windows-only inputs. They are
# defined in the default inputs.conf.

* Use the "disabled=" setting to enable/disable any of them.
* A short summary of the inputs follows:
  * Perfmon: Monitors Windows performance counters, objects, and instances.
  * WinRegMon: Tracks and report any changes that occur in the
    local system Registry.
  * ADMon: Indexes existing Active Directory (AD) objects and listens for AD
    changes.
  * WMI: Retrieves event logs remotely and locally through the Windows
    Management.  Instrumentation subsystem. It can also gather performance
    data remotely, as well as receive various system notifications. See
    wmi.conf.spec for information on how to configure this input.

#*******
# The following Windows input specifications are for parsing on non-Windows
# platforms.
#*******
```

性能监视器

```
[perfmon://<name>]

* This section explains possible settings for configuring
  the Windows Performance Monitor input.
* Each perfmon:// stanza represents an individually configured performance
  monitoring input. If you configure the input through Splunk Web, then the
  value of "<NAME>" matches what was specified there. While you can add
  performance monitor inputs manually, it is a best practice to use Splunk
  Web to configure them, because it is easy to mistype the values for
  Performance Monitor objects, counters, and instances.
* NOTE: The perfmon stanza is for local systems ONLY. To define performance
  monitor inputs for remote machines, use wmi.conf.

object = <string>
* A valid Performance Monitor object as defined within Performance
  Monitor (for example, "Process," "Server," "PhysicalDisk.")
* You can specify a single valid Performance Monitor object or use a
  regular expression (regex) to specify multiple objects.
* This setting is required, and the input does not run if the setting is
  not present.
* No default.

counters = <semicolon-separated list>
* This can be a single counter, or multiple valid Performance Monitor
  counters.
* This setting is required, and the input does not run if the setting is
  not present.
* "*" is equivalent to all available counters for a given Performance
  Monitor object.
* No default.
```

```
instances = <semicolon-separated list>
* One or more multiple valid Performance Monitor instances.
* "*"" is equivalent to all available instances for a given Performance Monitor
  counter.
* If applicable instances are available for a counter and this setting is not
  present, then the input logs data for all available instances (this is the
  same as setting "instances = *").
* If there are no applicable instances for a counter, then you can omit
  this setting.
* No default.

interval = <integer>
* How often, in seconds, to poll for new data.
* This setting is required, and the input does not run if the setting is
  not present.
* The recommended setting depends on the Performance Monitor object,
  counter(s), and instance(s) that you define in the input, and how much
  performance data you need.
  * Objects with numerous instantaneous or per-second counters, such
    as "Memory", "Processor", and "PhysicalDisk" should have shorter
    interval times specified (anywhere from 1-3 seconds).
  * Less volatile counters such as "Terminal Services", "Paging File",
    and "Print Queue" can have longer intervals configured.
* Default: 300

mode = [single|multikv]
* Specifies how the performance monitor input generates events.
* Set to "single" to print each event individually.
* Set to "multikv" to print events in multikv (formatted multiple
  key-value pair) format.
* Default: "single"

samplingInterval = <positive integer>
* How often, in milliseconds, to poll for new data.
* This is an advanced setting.
* Enables high-frequency performance sampling. The input collects
  performance data every sampling interval. It then reports averaged data
  and other statistics at every interval.
* The minimum legal value is 100, and the maximum legal value must be less
  than the 'interval' setting.
* If not set, high-frequency sampling does not occur.
* No default (disabled).

stats = <average;count;dev;min;max>
* Reports statistics for high-frequency performance
  sampling.
* This is an advanced setting.
* Acceptable values are: average, count, dev, min, max.
* You can specify multiple values by separating them with semicolons.
* If not specified, the input does not produce high-frequency sampling
  statistics.
* No default. (disabled)

disabled = <boolean>
* Specifies whether or not the input is enabled.
* Set to 1 to disable the input, and 0 to enable it.
* Default: 0 (enabled)

showZeroValue = <boolean>
* Specfies whether or not zero-value event data should be collected.
* Set to 1 to capture zero value event data, and 0 to ignore such data.
* Default: 0 (ignore zero value event data)

useEnglishOnly = <boolean>
* Controls which Windows Performance Monitor API the input uses.
* If set to "true", the input uses PdhAddEnglishCounter() to add the
  counter string. This ensures that counters display in English
  regardless of the Windows machine locale.
```

```
* If set to "false", the input uses PdhAddCounter() to add the counter string.
* NOTE: if you set this setting to true, the 'object' setting does not
  accept a regular expression as a value on machines that have a non-English
  locale.
* Default: false

useWinApiProcStats = <boolean>
* Whether or not the Performance Monitor input uses process kernel mode and
  user mode times to calculate CPU usage for a process, rather than using
  the standard Performance Data Helper (PDH) APIs to calculate those values.
* A problem was found in the PDH APIs that causes Performance Monitor inputs
  to show maximum values of 100% usage for a process on multicore Windows
  machines, even when the process uses more than 1 core at a time.
* When you configure this setting to "true", the input uses the
  GetProcessTime() function in the core Windows API to calculate
  CPU usage for a process, for the following Performance Monitor
  counters, only:
** Processor Time
** User Time
** Privileged Time
* This means that, if a process uses 5 of 8 cores on an 8-core machine, that
  the input should return a value of around 500, rather than the incorrect 100.
* When you configure the setting to "false", the input uses the standard
  PDH APIs to calculate CPU usage for a process. On multicore systems, the
  maximum value that PDH APIs return is 100, regardless of the number of
  cores in the machine that the process uses.
* Performance monitor inputs use the PDH APIs for all other Performance
  Monitor counters. Configuring this setting has no effect on those counters.
* NOTE: If the Windows machine uses a non-English system locale, and you
  have set 'useWinApiProcStats' to "true" for a Performance Monitor input,
  then you must also set 'useEnglishOnly' to "true" for that input.
* Default: false

formatString = <string>
* Controls the print format for double-precision statistic counters.
* Do not use quotes when specifying this string.
* Default: %.20g

usePDHFmtNoCap100 = <boolean>
* Whether or not performance counter values that are greater than 100 (for example,
  counter values that measure the processor load on computers with multiple
  processors) are reset to 100.
* If set to "true", the counter values can exceed 100.
* If set to "false", the input resets counter values to 100 if the
  processor load on multiprocessor computers exceeds 100.
* Default: false
```

直接访问文件监视器

```
# For Windows systems only.
# Does not use file handles

[MonitorNoHandle://<path>]

* This input intercepts file writes to the specific file.
* <path> must be a fully qualified path name to a specific file. Wildcards
  and directories are not accepted.
* This input type does not function on *nix machines.
* You can specify more than one stanza of this type.

disabled = <boolean>
* Whether or not the input is enabled.
* Default: 0 (enabled)

index = <string>
```

```
* Specifies the index that this input should send the data to.
* This setting is optional.
* Default: the default index
```

Windows 事件日志输入

```
[WinEventLog://<name>]

* This section explains possible settings for configuring the
  Windows Event Log monitor.
* Each WinEventLog:// stanza represents an individually configured WinEventLog
  monitoring input. If you you configure the input through Splunk Web, the
  value of "<NAME>" matches what was specified there. While you can add
  event log monitor inputs manually, it is best practice to use Splunk
  Web to configure Windows event log monitor inputs because it is
  easy to mistype the values for event log channels.
* NOTE: The WinEventLog stanza is for local systems only. To define event log
  monitor inputs for remote machines, use wmi.conf.

start_from = <string>
* How the input should chronologically read the Event Log channels.
* If you set this setting to "oldest", the input reads Windows event logs
  from oldest to newest.
* If you set this setting to "newest" the input reads Windows event logs
  in reverse, from newest to oldest. Once the input consumes the backlog of
  events, it stops.
* If you set this setting to "newest", and at the same time set the
  "current_only" setting to 0, the combination can result in the input
  indexing duplicate events.
* Do not set this setting to "newest" and at the same time set the
  "current_only" setting to 1. This results in the input not collecting
  any events because you instructed it to read existing events from oldest
  to newest and read only incoming events concurrently (A logically
  impossible combination.)
* Default: "oldest"

use_old_eventlog_api = <boolean>
* Whether or not to read Event Log events with the Event Logging API.
* This is an advanced setting. Contact Splunk Support before you change it.
* If set to "true", the input uses the Event Logging API (instead of the
  Windows Event Log API) to read from the Event Log on Windows Server 2008,
  Windows Vista, and later installations.
* Default: false (Use the API that is specific to the OS)

use_threads = <integer>
* Specifies the number of threads, in addition to the default writer thread,
  that can be created to filter events with the deny list/allow list
  regular expression.
* This is an advanced setting. Contact Splunk Support before you change it.
* The maximum number of threads is 15.
* Default: 0

thread_wait_time_msec = <integer>
* The interval, in milliseconds, between attempts to re-read Event Log files
  when a read error occurs.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: 5000

#
# NOTE: The 'suppress_*' settings are similar to, but operate differently than,
# the 'evt_exclude_fields' setting. The 'suppress_*' settings avoid using the
# Windows API to gather Windows events that match the available
# fields, which helps with CPU performance. The 'evt_exclude_fields'
# is valid for all Windows Event Log fields, and while it does use
# the Windows API for all transactions, it discards the fields in
# each event that match, which helps reduce total data ingestion.
#

suppress_checkpoint = <boolean>
* Whether or not the Event Log strictly follows the 'checkpointInterval'
  setting when it saves a checkpoint.
* This is an advanced setting. Contact Splunk Support before you change it.
* By default, the Event Log input saves a checkpoint from between zero
  and 'checkpointInterval' seconds, depending on incoming event volume.
  If you set this setting to "true", that does not happen.
* Default: false

suppress_sourcename = <boolean>
* Whether or not to exclude the 'sourcename' field from events.
* This is an advanced setting. Contact Splunk Support before you change it.
* When set to true, the input excludes the 'sourcename' field from events
  and thruput performance (the number of events processed per second) improves.
* Default: false

suppress_keywords = <boolean>
* Whether or not to exclude the 'keywords' field from events.
* This is an advanced setting. Contact Splunk Support before you change it.
* When set to true, the input excludes the 'keywords' field from events and
  thruput performance (the number of events processed per second) improves.
* Default: false

suppress_type = <boolean>
* Whether or not to exclude the 'type' field from events.
* This is an advanced setting. Contact Splunk Support before you change it.
* When set to true, the input excludes the 'type' field from events and
  thruput performance (the number of events processed per second) improves.
* Default: false

suppress_task = <boolean>
* Whether or not to exclude the 'task' field from events.
* This is an advanced setting. Contact Splunk Support before you change it.
* When set to true, the input excludes the 'task' field from events and
  thruput performance (the number of events processed per second) improves.
* Default: false

suppress_opcode = <boolean>
* Whether or not to exclude the 'opcode' field from events.
  When set to true, the input excludes the 'opcode' field from events and
  thruput performance (the number of events processed per second) improves.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: false

current_only = <boolean>
* Whether or not to acquire only events that arrive while the instance is
  running.
* If you set this setting to 1, the input only acquires events that arrive
  while the instance runs and the input is enabled. The input does not read
  data which was stored in the Windows Event Log while the instance was not
  running. This means that there will be gaps in the data if you restart the
  instance or experiences downtime.
* If you set the setting to 0, the input first gets all existing events
  already stored in the log that have higher event IDs (have arrived more
  recently) than the most recent events acquired. The input then monitors
  events that arrive in real time.
* If you set this setting to 0, and at the same time set the
  'start_from' setting to "newest", the combination can result in the
  indexing of duplicate events.
* Do not set this setting to 1 and at the same time set the
  'start_from' setting to "newest". This results in the input not collecting
  any events because you instructed it to read existing events from oldest
  to newest and read only incoming events concurrently (A logically
  impossible combination.)
* Default: 0 (false, gathering stored events first before monitoring
  live events)
```

```
batch_size = <integer>
* How many Windows Event Log items to read per request.
* If troubleshooting identifies that the Event Log input is a bottleneck in
  acquiring data, increasing this value can help.
  * NOTE: Splunk Support has seen cases where large values can result in a
    stall in the Event Log subsystem. If you increase this value
    significantly, monitor closely for trouble.
* In local and customer acceptance testing, a value of 10 was acceptable
  for both throughput and reliability.
* Default: 10

checkpointInterval = <integer>
* How often, in seconds, that the Windows Event Log input saves a checkpoint.
* Checkpoints store the eventID of acquired events. This lets the input
  continue monitoring at the correct event after a shutdown or outage.
* Default: 0

disabled = <boolean>
* Whether or not the input is enabled.
* Set to 1 to disable the input, and 0 to enable it.
* Default: 0 (enabled)

evt_resolve_ad_obj = <boolean>
* How the input should interact with Active Directory while indexing Windows
  Event Log events.
* If you set this setting to true, the input resolves the Active
  Directory Security IDentifier (SID) objects to their canonical names for
  a specific Windows Event Log channel.
* If you enable the setting, the rate at which the input reads events
  on high-traffic Event Log channels can decrease. Latency can also increase
  during event acquisition. This is due to the overhead involved in performing
  AD translations.
* When you set this setting to true, you can optionally specify the domain
  controller name or dns name of the domain to bind to with the 'evt_dc_name'
  setting. The input connects to that domain controller to resolve the AD
  objects.
* If you set this setting to false, the input does not attempt any resolution.
* Default: false (disabled) for all channels

evt_dc_name = <string>
* Which Active Directory domain controller to bind to for AD object
  resolution.
* If you prefix a dollar sign to a value (for example, $my_domain_controller),
  the input interprets the value as an environment variable. If the
  environment variable has not been defined on the host, it is the same
  as if the value is blank.
* This setting is optional.
* This setting can be set to the NetBIOS name of the domain controller
  or the fully-qualified DNS name of the domain controller. Either name
  type can, optionally, be preceded by two backslash characters. The following
  examples represent correctly formatted domain controller names:

    * "FTW-DC-01"
    * "\\FTW-DC-01"
    * "FTW-DC-01.splunk.com"
    * "\\FTW-DC-01.splunk.com"
    * $my_domain_controller

evt_dns_name = <string>
* The fully-qualified DNS name of the domain that the input should bind to for
  AD object resolution.
* This setting is optional.

evt_resolve_ad_ds = [auto|PDC]
* How the input should choose the domain controller to bind for
  AD resolution.
* This setting is optional.
* If set to PDC, the input only contacts the primary domain controller
```

```
  to resolve AD objects.
* If set to auto, the input lets Windows chose the best domain controller.
* If you set the 'evt_dc_name' setting, the input ignores this setting.
* Default: auto (let Windows determine the domain controller to use)

evt_ad_cache_disabled = <boolean>
* Enables or disables the AD object cache.
* Default: false (enabled)

evt_ad_cache_exp = <integer>
* The expiration time, in seconds, for AD object cache entries.
* This setting is optional.
* The minimum allowed value is 10 and the maximum allowed value is 31536000.
* Default: 3600 (1 hour)

evt_ad_cache_exp_neg = <integer>
* The expiration time, in seconds, for negative AD object cache entries.
* This setting is optional.
* The minimum allowed value is 10 and the maximum allowed value is 31536000.
* Default: 10

evt_ad_cache_max_entries = <integer>
* The maximum number of AD object cache entries.
* This setting is optional.
* The minimum allowed value is 10 and the maximum allowed value is 40000.
* Default: 1000

evt_exclude_fields = <comma-separated list>
* A comma-separated list of valid Windows Event Log fields to
  exclude from Windows Event Log events.
* Specify fields that you want excluded from each event report.
* Do not exclude fields that you have also added to allow lists or
  deny lists. If fields are present in both, then 'evt_exclude_fields'
  excludes those fields, regardless of their presence in the allow list
  or deny list and the allow list or deny list will not behave as
  expected.
  The input logs an error to splunkd.log in this case.
* This setting is similar to, but operates differently than, the
  'suppress_*' settings. The 'suppress_*' settings avoid using the
  Windows API to gather Windows events that match the available
  fields, which helps with CPU performance. The 'evt_exclude_fields'
  is valid for all Windows Event Log fields, and while it does use
  the Windows API for all transactions, it discards the fields in
  each event that match, which helps reduce total data ingestion.
* Does not effect event report if 'renderXML' is set to "true".
* The 'evt_exclude_fields' setting is valid for all Windows Event Log fields.
* No default.

evt_sid_cache_disabled = <boolean>
* Enables or disables account Security IDentifier (SID) cache.
* This setting is global. It affects all Windows Event Log stanzas.
* Default: 0

evt_sid_cache_exp = <unsigned integer>
* The expiration time, in seconds, for account SID cache entries.
* This setting is optional.
* This setting is global. It affects all Windows Event Log stanzas.
* The minimum allowed value is 10 and the maximum allowed value is 31536000.
* Default: 3600

evt_sid_cache_exp_neg = <unsigned integer>
* The expiration time, in seconds, for negative account SID cache entries.
* This setting is optional.
* This setting is global. It affects all Windows Event Log stanzas.
* The minimum allowed value is 10 and the maximum allowed value is 31536000.
* Default: 10

evt_sid_cache_max_entries = <unsigned integer>
* The maximum number of account SID cache entries.
* This setting is optional.
* This setting is global. It affects all Windows Event Log stanzas.
* The minimum allowed value is 10 and the maximum allowed value is 40000.
* Default: 10

index = <string>
* Specifies the index that this input should send the data to.
* This setting is optional.
* Default: The default index
```

事件日志过滤

```
# Filtering at the input layer is desirable to reduce the total
# processing load in network transfer and computation on the Splunk platform
# nodes that acquire and processing Event Log data.

whitelist = <list of eventIDs> | key=regex [key=regex]
blacklist = <list of eventIDs> | key=regex [key=regex]

whitelist1 = <list of eventIDs> | key=regex [key=regex]
whitelist2 = <list of eventIDs> | key=regex [key=regex]
whitelist3 = <list of eventIDs> | key=regex [key=regex]
whitelist4 = <list of eventIDs> | key=regex [key=regex]
whitelist5 = <list of eventIDs> | key=regex [key=regex]
whitelist6 = <list of eventIDs> | key=regex [key=regex]
whitelist7 = <list of eventIDs> | key=regex [key=regex]
whitelist8 = <list of eventIDs> | key=regex [key=regex]
whitelist9 = <list of eventIDs> | key=regex [key=regex]
blacklist1 = <list of eventIDs> | key=regex [key=regex]
blacklist2 = <list of eventIDs> | key=regex [key=regex]
blacklist3 = <list of eventIDs> | key=regex [key=regex]
blacklist4 = <list of eventIDs> | key=regex [key=regex]
blacklist5 = <list of eventIDs> | key=regex [key=regex]
blacklist6 = <list of eventIDs> | key=regex [key=regex]
blacklist7 = <list of eventIDs> | key=regex [key=regex]
blacklist8 = <list of eventIDs> | key=regex [key=regex]
blacklist9 = <list of eventIDs> | key=regex [key=regex]

* These settings are optional.
* Both numbered and unnumbered allow lists and deny lists support two formats:
  * A comma-separated list of event IDs.
  * A list of key=regular expression pairs.
  * You cannot combine these formats. You can use either format on a specific
    line.

* Numbered allow list settings are permitted from 1 to 9, so whitelist1 through
  whitelist9 and blacklist1 through blacklist9 are supported.
* If no allow list or deny  list rules are present, the input reads all events.
```

事件日志允许列表和拒绝列表格式

```
* Event ID list format:
  * A comma-separated list of terms.
  * Terms may be a single event ID (e.g. 6) or range of event IDs (e.g. 100-200)
  * Example: 4,5,7,100-200
    * This applies to events with IDs 4, 5, 7, or any event ID between 100
      and 200, inclusive.
  * The event ID list format provides no additional functionality over the
    key=regex format, but can be easier to understand:
    List format:      4,5,7,100-200
    Regex equivalent: EventCode=%^(4|5|7|1..|200)$%

* key=regex format:
  * A whitespace-separated list of Event Log components to match, and
    regular expressions to match against against them.
  * There can be one match expression or multiple expressions per line.
  * The key must belong to the set of valid keys provided below.
  * The regex consists of a leading delimiter, the regex expression, and a
    trailing delimiter. Examples: %regex%, *regex*, "regex"
  * When multiple match expressions are present, they are treated as a
    logical AND.  In other words, all expressions must match for the line to
    apply to the event.
  * If the value represented by the key does not exist, it is not considered
    a match, regardless of the regex.
  * Example:
    whitelist = EventCode=%^200$% User=%jrodman%
    Include events only if they have EventCode 200 and relate to User jrodman

# Valid keys for the key=regex format:

* The following keys are equivalent to the fields that appear in the text of
  the acquired events:
  * Category, CategoryString, ComputerName, EventCode, EventType, Keywords,
    LogName, Message, OpCode, RecordNumber, Sid, SidType, SourceName,
    TaskCategory, Type, User
* There are two special keys that do not appear literally in the event.
  * $TimeGenerated: The time that the computer generated the event
  * $Timestamp: The time that the event was received and recorded by the
                Event Log service.
* The 'EventType' key is only available on Windows Server 2003 /
  Windows XP and earlier.
* The 'Type' key is only available on Windows Server 2008 /
  Windows Vista and later.
* For a detailed definition of these keys, see the
  "Monitor Windows Event Log Data" topic in the online documentation.

suppress_text = <boolean>
* Whether or not to include the description of the event text for a
  given Event Log event.
* This setting is optional.
* Set this setting to true to suppress the inclusion of the event
  text description.
* Set this value to false to include the event text description.
* Default: false

renderXml = <boolean>
* Whether or not the input returns the event data in XML (eXtensible Markup
  Language) format or in plain text.
* Set this to "true" to render events in XML.
* Set this to "false" to output events in plain text.
* If you set this setting to "true", you should also set the 'suppress_text',
  'suppress_sourcename', 'suppress_keywords', 'suppress_task', and
  'suppress_opcode' settings to "true" to improve thruput performance.
* Default: false
```

Active Directory 监视器

```
[admon://<name>]

* This section explains possible settings for configuring the Active Directory
  monitor input.
* Each admon:// stanza represents an individually configured Active
  Directory monitoring input. If you configure the input with Splunk Web,
  then the value of "<NAME>" matches what was specified there. While
  you can add Active Directory monitor inputs manually, it is best practice
  to use Splunk Web to configure Active Directory monitor
  inputs because it is easy to mistype the values for Active Directory
  monitor objects.
```

```
targetDc = <string>
* The fully qualified domain name of a valid, network-accessible
  Active Directory domain controller (DC).
* This setting is case sensitive. Do not use 'targetdc' or 'targetDC',
  but rather 'targetDc'.
* Default: The DC that the local host used to connect to AD. The
  input binds to its root Distinguished Name (DN).

startingNode = <string>
* Where in the Active Directory directory tree to start monitoring.
* The user that you configure Splunk software to run as at
  installation determines where the input starts monitoring.
* Default: the root of the directory tree

monitorSubtree = <boolean>
* Whether or not to monitor the subtree(s) of a given Active
  Directory tree path.
* Set this to 1 to monitor subtrees of a given directory tree
  path and 0 to monitor only the path itself.
* Default: 1 (monitor subtrees of a given directory tree path)

disabled = <boolean>
* Whether or not the input is enabled.
* Set this to 1 to disable the input and 0 to enable it.
* Default: 0 (enabled)

index = <string>
* The index to store incoming data into for this input.
* This setting is optional.
* Default: the default index

printSchema = <boolean>
* Whether or not to print the Active Directory schema.
* Set this to 1 to print the schema and 0 to not print
  the schema.
* Default: 1 (print the Active Directory schema)

baseline = <boolean>
* Whether or not to query baseline objects.
* Baseline objects are objects which currently reside in Active Directory.
* Baseline objects also include previously deleted objects.
* Set this to 1 to query baseline objects, and 0 to not query
  baseline objects.
* Default: 0 (do not query baseline objects)
```

Windows 注册表监视器

```
[WinRegMon://<name>]

* This section explains possible settings for configuring the Windows Registry
  Monitor input.
* Each WinRegMon:// stanza represents an individually configured
  WinRegMon monitoring input.
* If you configure the inputs with Splunk Web, the value of "<NAME>" matches
  what was specified there. While you can add event log monitor inputs
  manually, it is best practice to use Splunk Web to configure
  Windows registry monitor inputs because it is easy to mistype the values
  for Registry hives and keys.
* The WinRegMon input is for local systems only. You cannot monitor the
  Registry remotely.

proc = <string>
* The processes this input should monitor for Registry access.
* If set, matches against the process name which performed the Registry
```

```
  access.
* The input includes events from processes that match the regular expression
  that you specify here.
* The input filters out events for processes that do not match the
  regular expression.
* Default: .* (match all processes)

hive = <string>
* The Registry hive(s) that this input should monitor for Registry access.
* If set, matches against the Registry key that was accessed.
* The input includes events from Registry hives that match the
  regular expression that you specify here.
* The input filters out events for Registry hives that do not match the
  regular expression.
* No default.

type = <string>
* A regular expression that specifies the type(s) of Registry event(s)
  that you want the input to monitor.
* No default.

baseline = <boolean>
* Whether or not the input should get a baseline of Registry events
  when it starts.
* If you set this to 1, the input captures a baseline for
  the specified hive when it starts for the first time. It then
  monitors live events.
* Default: 0 (do not capture a baseline for the specified hive
  first before monitoring live events)

baseline_interval = <integer>
* Selects how much downtime in continuous registry monitoring should trigger
  a new baseline for the monitored hive and/or key.
* In detail:
  * Sets the minimum time interval, in seconds, between baselines.
  * At startup, a WinRegMon input does not generate a baseline if less time
    has passed since the last checkpoint than baseline_interval chooses.
  * In normal operation, checkpoints are updated frequently as data is
    acquired, so this will cause baselines to occur only when monitoring was
    not operating for a period of time.
* If baseline is set to 0 (disabled), the setting has no effect.
* Default: 86400 (1 day)

disabled = <boolean>
* Whether or not the input is enabled.
* Set this to 1 to disable the input, or 0 to enable it.
* Default: 0 (enabled)

index = <string>
* The index that this input should send the data to.
* This setting is optional.
* Default: the default index
```

Windows 主机监视

```
[WinHostMon://<name>]

* This section explains possible settings for configuring the Windows host
  monitor input.
* Gathers status information from the local Windows system components as
  per the type field below.
* Each WinHostMon:// stanza represents an WinHostMon monitoring input.
* The "<name>" component of the stanza name is used as the source field
  on generated events, unless an explicit source setting is added to the
  stanza.  It does not affect what data is collected (see type setting for
  that).
* If you configure the input in Splunk Web, the value of "<name>" matches
  what was specified there.
* NOTE: The WinHostMon input is for local Windows systems only. You
  cannot monitor Windows host information remotely.

type = <semicolon-separated list>
* An expression that specifies the type(s) of host inputs
  that you want the input to monitor.
* Type can be (case insensitive):
  Computer;Process;Processor;NetworkAdapter;Service;OperatingSystem;Disk;Driver;Roles
* No default.

interval = <integer>
* The interval, in seconds, between when the input runs to gather
  Windows host information and generate events.
* See 'interval' in the Scripted input section for more information.

disabled = <boolean>
* Whether or not the input is enabled.
* Set this to 1 to disable the input, or 0 to enable it.
* Default: 0 (enabled)

index = <string>
* The index that this input should send the data to.
* This setting is optional.
* Default: the default index

[WinPrintMon://<name>]

* This section explains possible settings for configuring the Windows print
  monitor input.
* Each WinPrintMon:// stanza represents an WinPrintMon monitoring input.
  The value of "<name>" matches what was specified in Splunk Web.
* NOTE: The WinPrintMon input is for local Windows systems only.
* The "<name>" component of the stanza name is used as the source field
  on generated events, unless an explicit source setting is added to the
  stanza.  It does not affect what data is collected (see type setting for
  that).

type = <semicolon-separated list>
* An expression that specifies the type(s) of print inputs
  that you want the input to monitor.
* Type can be (case insensitive):
  Printer;Job;Driver;Port
* No default.

baseline = <boolean>
* Whether or not to capture a baseline of print objects when the
  input starts for the first time.
* If you set this setting to 1, the input captures a baseline of
  the current print objects when the input starts for the first time.
* Default: 0 (do not capture a baseline)

disabled = <boolean>
* Whether or not the input is enabled.
* Set to 1 to disable the input, or 0 to enable it.
* Default: 0 (enabled)

index = <string>
* The index that this input should send the data to.
* This setting is optional.
* Default: the default index

[WinNetMon://<name>]

* This section explains possible settings for configuring
  a Network Monitor input.
* Each WinNetMon:// stanza represents an individually configured network
```

```
  monitoring input.  The value of "<name>" matches what was specified
  in Splunk Web. It is best practice to use Splunk Web to
  configure Network Monitor inputs because it is easy to mistype
  the values for Network Monitor objects.

remoteAddress = <regular expression>
* A regular expression that represents the remote IP address of a
  host that is involved in network communication.
* This setting accepts a regular expression that matches against
  IP addresses only, not host names. For example: 192\.163\..*
* The input includes events for remote IP addresses that match
  the regular expression that you specify here.
* The input filters out events for remote IP addresses that do not
  match the regular expression.
* No default (including all remote address events)

process = <regular expression>
* A regular expression that represents the process or application that
  performed a network access.
* The input includes events for processes that match the
  regular expression that you specify here.
* The input filters out events for processes that do not match the
  regular expression.
* No default (including all processes and application events)

user = <regular expression>
* A regular expression that represents the Windows user name that
  performed a network access.
* The input includes events for user names that match the
  regular expression that you specify here.
* The input filters out events for user names that do not match the
  regular expression.
* No default (including all user name events)

addressFamily = ipv4;ipv6
* Determines the events to include by network address family.
* Setting "ipv4" alone includes only IPv4 packets, while "ipv6" alone
  includes only IPv6 packets.
* To specify both families, separate them with a semicolon.
  For example: ipv4;ipv6
* No default (including events with both address families)

packetType = connect;accept;transport.
* Determines the events to include by network packet type.
* To specify multiple packet types, separate them with a semicolon.
  For example: connect;transport
* No default (including events with any packet type)

direction = inbound;outbound
* Determines the events to include by network transport direction.
* To specify multiple directions, separate them with a semicolon.
  For example: inbound;outbound
* No default (including events with any direction)

protocol = tcp;udp
* Determines the events to include by network protocol.
* To specify multiple protocols, separate them with a semicolon.
  For example: tcp;udp
* For more information about protocols, see
  http://www.ietf.org/rfc/rfc1700.txt
* No default (including events with all protocols)

readInterval = <integer>
* How often, in milliseconds, that the input should read the network
  kernel driver for events.
* Advanced option. Use the default value unless there is a problem
  with input performance.
* Set this to adjust the frequency of calls into the network kernel driver.
* Choosing lower values (higher frequencies) can reduce network
```

```
  performance, while higher numbers (lower frequencies) can cause event
  loss.
* The minimum allowed value is 10 and the maximum allowed value is 1000.
* Default: 100

driverBufferSize = <integer>
* The maximum number of packets that the network kernel driver retains
  for retrieval by the input.
* Set to adjust the maximum number of network packets retained in
  the network driver buffer.
* Advanced option. Use the default value unless there is a problem
  with input performance.
* Configuring this setting to lower values can result in event loss, while
  higher values can increase the size of non-paged memory on the host.
* The minimum allowed value is 128 and the maximum allowed value is 32768.
* Default: 32768

userBufferSize = <integer>
* The maximum size, in megabytes, of the user mode event buffer.
* Controls amount of packets cached in the the user mode.
* Advanced option. Use the default value unless there is a problem
  with input performance.
* Configuring this setting to lower values can result in event loss, while
  higher values can increase the amount of memory that the network
  monitor uses.
* The minimum allowed value is 20 and the maximum allowed value is 500.
* Default: 20

mode = single|multikv
* Specifies how the network monitor input generates events.
* Set to "single" to generate one event per packet.
* Set to "multikv" to generate combined events of many packets in
  multikv format (many packets described in a single table as one event).
* Default: single

multikvMaxEventCount = <integer>
* The maximum number of packets to combine in multikv format when you set
  the 'mode' setting to "multikv".
* Has no effect when 'mode' is set to "single".
* Advanced option.
* The minimum allowed value is 10 and the maximum allowed value is 500.
* Default: 100

multikvMaxTimeMs = <integer>
* The maximum amount of time, in milliseconds, to accumulate packet data to
  combine into a large tabular event in multikv format.
* Has no effect when 'mode' is set to 'single'.
* Advanced option.
* The minimum allowed value is 100 and the maximum allowed value is 5000.
* Default: 1000

sid_cache_disabled = 0|1
* Enables or disables account Security IDentifier (SID) cache.
* This setting is global. It affects all Windows Network Monitor stanzas.
* Default: 0

sid_cache_exp = <integer>
* The expiration time, in seconds, for account SID cache entries.
* Optional.
* This setting is global. It affects all Windows Network Monitor stanzas.
* The minimum allowed value is 10 and the maximum allowed value is 31536000.
* Default: 3600

sid_cache_exp_neg = <integer>
* The expiration time, in seconds, for negative account SID cache entries.
* Optional.
* This setting is global. It affects all Windows Network Monitor stanzas.
* The minimum allowed value is 10 and the maximum allowed value is 31536000.
* Default: 10
```

```
sid_cache_max_entries = <integer>
* The maximum number of account SID cache entries.
* Optional.
* This setting is global. It affects all Windows Network Monitor stanzas.
* The minimum allowed value is 10 and the maximum allowed value is 40000.
* Default: 10

disabled = 0|1
* Whether or not the input is enabled.
* Set to 1 to disable the input, and 0 to enable it.
* Default: 0 (enabled)

index = <string>
* The index that this input should send the data to.
* Optional.
* Default: the default index

# Global settings for the powershell modinput.

[powershell]
io_threads = <integer>
* The number of threads that Splunk software spawns to run PowerShell scripts
  that have been configured in inputs.conf.
* If you specify a value that is less than or equal to 0, Splunk software
  autotunes this setting.
* The default can vary. Splunk software autotunes the number of threads
  based on the availability of CPU resources on the machine.

serialization_threads = <integer>
* The number of threads that Splunk software spawns for serialization of
  PowerShell objects that it has collected into XML strings.
* This serialization, or conversion of objects, occurs according to the
  Modular Input XML protocol.
* If you specify a value that is less than or equal to 0, Splunk software
  autotunes this setting.
* Default: The default can vary. Splunk software autotunes the number of threads
  based on available CPU resources on the machine.

event_serialization_format = [ kv | json ]
* The event format that Powershell objects are serialized into.
* The supported event formats are "kv" and "json".
* For example, given the following PowerShell object:

   $psObj = @{
      A: "a string"
      B: 18
      C: "a log line"
   }

   If you set 'event_serialization_format' to "kv", the Splunk platform
   indexes the event as follows:

   A="a string"
   B=18
   C="a log line"

   If you set 'event_serialization_format' to "json", the Splunk platform
   indexes the event as follows:

   {
       "A": "a string",
       "B": 18,
       "C": "a log line"
   }
* Default: kv

[powershell://<name>]
* Runs Windows PowerShell version 3 commands or scripts.
```

```
script = <string>
* A PowerShell command-line script or .ps1 script file that the input
  should run.
* No default.

schedule = [<positive integer>|<cron schedule>]
* How often to run the specified PowerShell command or script.
* You can specify a number in seconds, or provide a valid cron
  schedule.
* Default: Runs the command or script once, at startup.

# Global settings for the powershell2 modinput.

[powershell2]
io_threads = <integer>
* The number of threads that Splunk software spawns to run PowerShell scripts
  that have been configured in inputs.conf.
* If you specify a value that is less than or equal to 0, Splunk software
  autotunes this setting.
* The default can vary. Splunk software autotunes the number of threads
  based on the availability of CPU resources on the machine.

event_serialization_format = [ kv | json ]
* The event format that Powershell objects are serialized into.
* The supported event formats are "kv" and "json".
* For example, given the following PowerShell object:

   $psObj = @{
      A: "a string"
      B: 18
      C: "a log line"
   }

   If you set 'event_serialization_format' to "kv", the Splunk platform
   indexes the event as follows:

   A="a string"
   B=18
   C="a log line"

   If you set 'event_serialization_format' to "json", the Splunk platform
   indexes the event as follows:

   {
       "A": "a string",
       "B": 18,
       "C": "a log line"
   }
* Default: kv


[powershell2://<name>]
* Runs Windows PowerShell version 2 commands or scripts.

script = <string>
* A PowerShell command-line script or .ps1 script file that the input
  should run.
* No default.

schedule = <schedule>
* How often to run the specified PowerShell command or script.
* You can provide a valid cron schedule.
* Default: Runs the command or script once, at startup.
```

远程队列监视器

```
[remote_queue:<name>]

* This section explains possible settings for configuring a remote queue.
* Each remote_queue: stanza represents an individually configured remote
  queue monitoring input.
* Note that only ONE remote queue stanza is supported as
  an input queue.

remote_queue.* = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* This section explains possible settings for configuring a remote queue.
* With remote queues, the splunk indexer might require additional configuration,
  specific to the type of remote queue. You can pass configuration information
  to the splunk indexer by specifying the settings through the following schema:
  remote_queue.<scheme>.<config-variable> = <value>.
  For example:
  remote_queue.sqs.access_key = ACCESS_KEY
* This setting is optional.
* No default.

remote_queue.type = [sqs|kinesis|sqs_smartbus]
* Currently not supported. This setting is related to a feature that is
  still under development.
* Required.
* Specifies the remote queue type, either Amazon Web Services (AWS)
  Simple Queue Service (SQS) or Amazon Kinesis or SQS Smartbus.

remote_queue.large_message_store.supports_versioning = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies whether or not the remote storage supports versioning.
* Versioning is a means of keeping multiple variants of an object
  in the same bucket on the remote storage.
* This setting is optional.
* Default: true

compressed = <boolean>
* See the description for TCPOUT ATTRIBUTES in outputs.conf.spec.

negotiateProtocolLevel = <unsigned integer>
* See the description for TCPOUT ATTRIBUTES in outputs.conf.spec.

channelReapInterval = <integer>
* See the description for TCPOUT ATTRIBUTES in outputs.conf.spec.

channelTTL = <integer>
* See the description for TCPOUT ATTRIBUTES in outputs.conf.spec.

channelReapLowater = <integer>
* See the description for TCPOUT ATTRIBUTES in outputs.conf.spec.

concurrentChannelLimit = <unsigned integer>
* See the description for [splunktcp].
```

特定于 SQS 的设置

```
remote_queue.sqs.access_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The access key to use when authenticating with the remote queue
  system supporting the SQS API.
```

```
* If not specified, the indexer looks for these environment variables:
  'AWS_ACCESS_KEY_ID' or 'AWS_ACCESS_KEY' (in that order). If the environment
  variables are not set and the indexer is running on Elastic Compute Cloud
  (EC2), the indexer attempts to use the secret key from the Identity and
  Access Management (IAM) role.
* This setting is optional.
* No default.

remote_queue.sqs.secret_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The secret key to use when authenticating with the remote queue
  system supporting the SQS API.
* If not specified, the indexer looks for these environment variables:
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order). If the environment
  variables are not set and the indexer is running on EC2, the indexer attempts to use the secret key from the IAM role.
* This setting is optional.
* No default.

remote_queue.sqs.auth_region = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The authentication region to use when signing the requests when interacting
  with the remote queue system supporting the SQS API.
* If not specified and the indexer is running on EC2, the auth_region is
  constructed automatically based on the EC2 region of the instance where the
  the indexer is running.
* This setting is optional.
* No default.

remote_queue.sqs.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The URL of the remote queue system supporting the SQS API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://sqs.<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified in 'remote_queue.sqs.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://sqs.us-west-2.amazonaws.com/
* This setting is optional.
* No default.

remote_queue.sqs.max_connections = <unsigned integer>
* Currently not supported. This setting is related to a feature that is still
  under development.
* The maximum number of HTTP connections to have in progress for
  certain queue operations.
* A value of 0 means unlimited.
* Default: 8

remote_queue.sqs.message_group_id = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The Message Group ID for Amazon Web Services Simple Queue Service
  (SQS) First-In, First-Out (FIFO) queues.
* Setting a Message Group ID controls how messages within an AWS SQS queue are
  processed.
* For information on SQS FIFO queues and how messages in those queues are
  processed, see "Recommendations for FIFO queues" in the AWS SQS Developer
  Guide.
* If you configure this setting, Splunk software assumes that the SQS queue is
  a FIFO queue, and that messages in the queue should be processed first-in,
  first-out.
* Otherwise, Splunk software assumes that the SQS queue is a standard queue.
* Can be between 1-128 alphanumeric or punctuation characters.
* NOTE: FIFO queues must have Content-Based Deduplication enabled.
* This setting is optional.
* No default.

remote_queue.sqs.retry_policy = [max_count|none]
* Currently not supported. This setting is related to a feature that is still
  under development.
* The retry policy to use for remote queue operations.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times a queue operation can be
    retried upon intermittent failure.
  + "none": Do not retry file operations upon failure.
* This setting is optional.
* Default: "max_count"

remote_queue.sqs.max_count.max_retries_per_part = <unsigned integer>
* Currently not supported. This setting is related to a feature that is still
  under development.
* When 'remote_queue.sqs.retry_policy' is set to "max_count", sets the maximum
  number of times a queue operation can be retried upon intermittent failure.
* This setting is optional.
* Default: 9

remote_queue.sqs.timeout.connect = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The connection timeout, in seconds, when interacting with
  SQS for this queue.
* This setting is optional.
* Default: 5

remote_queue.sqs.timeout.read = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The read timeout, in seconds, when interacting with SQS for
  this queue.
* This setting is optional.
* Default: 60

remote_queue.sqs.timeout.write = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The write timeout, in seconds, when interacting with SQS for
  this queue.
* This setting is optional.
* Default: 60

remote_queue.sqs.timeout.receive_message = <unsigned integer>
* The receive message wait time, in seconds, when interacting with SQS for
  this queue.
* When set to greater than 0, enables "long polling." If there are no messages
  immediately available, the queue waits at most
  'remote_queue.sqs.timeout.receive_message' seconds for a message to
  become available.
* When 0, disables long polling.
* When not set, uses the value configured for the queue via the AWS SQS
  console.
* Maximum value: 20
* This setting is optional.
* Default: 20

remote_queue.sqs.timeout.visibility = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default "visibility timeout," in seconds, to use when
  explicitly changing the visibility of specific messages in the queue.
* NOTE: Changing the value of 'remote_queue.sqs.timeout.visibility'
  does not change the implicit visibility timeout configured for
  the queue in the AWS SQS console.
* This setting is optional.
* Default: 60

remote_queue.sqs.buffer.visibility = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default time, in seconds, before
  'remote_queue.sqs.timeout.visibility' at which visibility of
  specific messages in the queue needs to be changed.
* This setting is optional.
* Default: 15

remote_queue.sqs.executor_max_workers_count = <positive integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The maximum number of worker threads that can be used by
  indexer per pipeline set to execute SQS tasks.
* A value of 0 is equivalent to 1.
* Default: 8

remote_queue.sqs.min_pending_messages = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default "minimum number of pending messages" to use before
  receiving messages off remote queue.
  Messages are only received when the sum of internal queue message count and
  pending object GET (from large messages storage) count is below
  the set value.
* This setting is optional.
* Default: 10

remote_queue.sqs.large_message_store.endpoint = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The URL of the remote storage system supporting the S3 API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://s3-<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via 'remote_queue.sqs.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://s3-us-west-2.amazonaws.com/
* This setting is optional.
* No default.

remote_queue.sqs.large_message_store.path = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The remote storage location where messages that are larger than the
  underlying queue maximum message size will reside.
* The format for this attribute is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string for
    identifying a location inside the storage system.
* These external systems are supported:
  - Object stores that support the AWS S3 protocol. These use the scheme "s3".
    For example, "path=s3://mybucket/some/path".
* If not specified, messages exceeding the underlying queue's maximum message
  size are dropped.
* This setting is optional.
* No default.
```

特定于 Kinesis 的设置

```
remote_queue.kinesis.access_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies the access key to use when authenticating with the remote queue
  system supporting the Kinesis API.
* If not specified, the forwarder will look for these environment variables:
  AWS_ACCESS_KEY_ID or AWS_ACCESS_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the forwarder
  attempts to use the secret key from the IAM role.
* This setting is optional.
* No default.

remote_queue.kinesis.secret_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies the secret key to use when authenticating with the remote queue
  system supporting the Kinesis API.
* If not specified, the forwarder will look for these environment variables:
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the forwarder
  attempts to use the secret key from the IAM role.
* This setting is optional.
* No default.

remote_queue.kinesis.auth_region = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The authentication region to use when signing the requests when interacting
  with the remote queue system supporting the Kinesis API.
* If not specified and the forwarder is running on EC2, the auth_region will be
  constructed automatically based on the EC2 region of the instance where the
  the forwarder is running.
* This setting is optional.
* No default.

remote_queue.kinesis.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The URL of the remote queue system supporting the Kinesis API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://kinesis.<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via 'remote_queue.kinesis.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://kinesis.us-west-2.amazonaws.com/
* This setting is optional.
* No default.

remote_queue.kinesis.retry_policy = [max_count|none]
* The retry policy to use for remote queue operations.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times a queue operation will be
    retried upon intermittent failure.
  + "none": Do not retry file operations upon failure.
* This setting is optional.
* Default: "max_count"

remote_queue.kinesis.max_count.max_retries_per_part = <unsigned integer>
* When 'remote_queue.kinesis.retry_policy' is "max_count", sets the
  maximum number of times a queue operation is retried upon intermittent
  failure.
* This setting is optional.
* Default: 9
```

```
remote_queue.kinesis.timeout.connect = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The connection timeout, in milliseconds, when interacting with
  Kinesis for this queue.
* This setting is optional.
* Default: 5000

remote_queue.kinesis.timeout.read = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The read timeout, in milliseconds, when interacting with Kinesis
  for this queue.
* This setting is optional.
* Default: 60000

remote_queue.kinesis.timeout.write = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The write timeout, in milliseconds, when interacting with Kinesis
  for this queue.
* This setting is optional.
* Default: 60000

remote_queue.kinesis.executor_max_workers_count = <positive integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The maximum number of worker threads that can be used by
  indexer per pipeline set to execute kinesis queue tasks.
* A value of 0 is equivalent to 1.
* Default: 8

remote_queue.kinesis.max_messages = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default "maximum number of messages" (that are received from
  remote_queue endpoint) to store in kinesis in-memory message queue.
* This setting is optional.
* Default: 10000

remote_queue.kinesis.min_pending_messages = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default "minimum number of pending messages" to use before
  receiving messages off kinesis in-memory message queue.
  Messages are only received when sum of internal queue message count and
  pending object GET (from large messages storage) count is below
  the set value.
* This setting is optional.
* Default: 50

remote_queue.kinesis.max_checkpoints = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default "maximum number of messages" (that have been received from
  remote_queue endpoint and completely consumed) to store in
  the Kinesis in-memory checkpoint queue.
* This setting is optional.
* Default: 100000

remote_queue.kinesis.roll_remote_buckets_interval = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default interval, in seconds, that the Kinesis remote queue
  input worker waits before it rolls the remote storage enabled buckets.
* This setting is optional.
* Default: 30

remote_queue.kinesis.large_message_store.endpoint = <string>
```

```
* Currently not supported. This setting is related to a feature that is
  still under development.
* The URL of the remote storage system supporting the S3 API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint will be constructed automatically based on the
  auth_region as follows: https://s3-<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via 'remote_queue.kinesis.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://s3-us-west-2.amazonaws.com/
* This setting is optional.
* No default.

remote_queue.kinesis.large_message_store.path = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The remote storage location where messages larger than the
  underlying queue maximum message size will reside.
* The format for this attribute is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string for
    identifying a location inside the storage system.
* These external systems are supported:
   - Object stores that support AWS's S3 protocol. These use the scheme "s3".
     For example, "path=s3://mybucket/some/path".
* If not specified, messages exceeding the underlying queue maximum message
  size are dropped.
* This setting is optional.
* No default.
```

特定于 SQS Smartbus 的设置

```
remote_queue.sqs_smartbus.access_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The access key to use when authenticating with the remote queue
  system supporting the SQS API.
* If not specified, the indexer looks for these environment variables:
  'AWS_ACCESS_KEY_ID' or 'AWS_ACCESS_KEY' (in that order). If the environment
  variables are not set and the indexer is running on Elastic Compute Cloud
  (EC2), the indexer attempts to use the secret key from the Identity and
  Access Management (IAM) role.
* This setting is optional.
* No default.

remote_queue.sqs_smartbus.secret_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The secret key to use when authenticating with the remote queue
  system supporting the SQS API.
* If not specified, the indexer looks for these environment variables:
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order). If the environment
  variables are not set and the indexer is running on EC2, the indexer attempts to use the secret key from the IAM role.
* This setting is optional.
* No default.

remote_queue.sqs_smartbus.auth_region = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The authentication region to use when signing the requests when interacting
  with the remote queue system supporting the SQS API.
* If not specified and the indexer is running on EC2, the auth_region is
  constructed automatically based on the EC2 region of the instance where the
  the indexer is running.
```

```
* This setting is optional.
* No default.

remote_queue.sqs_smartbus.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The URL of the remote queue system supporting the SQS API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://sqs.<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified in 'remote_queue.sqs.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://sqs.us-west-2.amazonaws.com/
* This setting is optional.
* No default.

remote_queue.sqs_smartbus.max_connections = <unsigned integer>
* Currently not supported. This setting is related to a feature that is still
  under development.
* The maximum number of HTTP connections that can be simultaneously in progress for
  certain queue operations.
* A value of 0 means unlimited.
* Default: 8

remote_queue.sqs_smartbus.message_group_id = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The Message Group ID for Amazon Web Services Simple Queue Service
  (SQS) First-In, First-Out (FIFO) queues.
* Setting a Message Group ID controls how messages within an AWS SQS queue are
  processed.
* For information on SQS FIFO queues and how messages in those queues are
  processed, see "Recommendations for FIFO queues" in the AWS SQS Developer
  Guide.
* If you configure this setting, Splunk software assumes that the SQS queue is
  a FIFO queue, and that messages in the queue should be processed first-in,
  first-out.
* Otherwise, Splunk software assumes that the SQS queue is a standard queue.
* Can be between 1-128 alphanumeric or punctuation characters.
* NOTE: FIFO queues must have Content-Based Deduplication enabled.
* This setting is optional.
* No default.

remote_queue.sqs_smartbus.retry_policy = [max_count|none]
* Currently not supported. This setting is related to a feature that is still
  under development.
* The retry policy to use for remote queue operations.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times a queue operation can be
    retried upon intermittent failure.
  + "none": Do not retry file operations upon failure.
* This setting is optional.
* Default: "max_count"

remote_queue.sqs_smartbus.max_count.max_retries_per_part = <unsigned integer>
* Currently not supported. This setting is related to a feature that is still
  under development.
* When 'remote_queue.sqs_smartbus.retry_policy' is set to "max_count", sets the maximum
  number of times a queue operation can be retried upon intermittent failure.
* This setting is optional.
* Default: 3

remote_queue.sqs_smartbus.timeout.connect = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
```

```
* The connection timeout, in seconds, when interacting with
  SQS for this queue.
* This setting is optional.
* Default: 5

remote_queue.sqs_smartbus.timeout.read = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The read timeout, in seconds, when interacting with SQS for
  this queue.
* This setting is optional.
* Default: 60

remote_queue.sqs_smartbus.timeout.write = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The write timeout, in seconds, when interacting with SQS for
  this queue.
* This setting is optional.
* Default: 60

remote_queue.sqs_smartbus.timeout.receive_message = <unsigned integer>
* The receive message wait time, in seconds, when interacting with SQS for
  this queue.
* When set to greater than 0, enables "long polling." If there are no messages
  immediately available, the queue waits at most
  'remote_queue.sqs.timeout.receive_message' seconds for a message to
  become available.
* When 0, disables long polling.
* When not set, uses the value configured for the queue via the AWS SQS
  console.
* Maximum value: 20
* This setting is optional.
* Default: 20

remote_queue.sqs_smartbus.timeout.visibility = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default "visibility timeout," in seconds, to use when
  explicitly changing the visibility of specific messages in the queue.
* NOTE: Changing the value of 'remote_queue.sqs.timeout.visibility'
  does not change the implicit visibility timeout configured for
  the queue in the AWS SQS console.
* This setting is optional.
* Default: 300

remote_queue.sqs_smartbus.buffer.visibility = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default time, in seconds, before
  'remote_queue.sqs.timeout.visibility' at which visibility of
  specific messages in the queue needs to be changed.
* This setting is optional.
* Default: 15

remote_queue.sqs_smartbus.executor_max_workers_count = <positive integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The maximum number of worker threads that can be used by
  indexer per pipeline set to execute SQS tasks.
* A value of 0 is equivalent to 1.
* Default: 4

remote_queue.sqs_smartbus.min_pending_messages = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The default "minimum number of pending messages" to use before
  receiving messages off remote queue.
  Messages are only received when the sum of internal queue message count and
  pending object GET (from large messages storage) count is below
  the set value.
* This setting is optional.
* Default: 10

remote_queue.sqs_smartbus.large_message_store.endpoint = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The URL of the remote storage system supporting the S3 API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://s3-<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via 'remote_queue.sqs_smartbus.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://s3-us-west-2.amazonaws.com/
* This setting is optional.
* No default.

remote_queue.sqs_smartbus.large_message_store.path = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The remote storage location where messages that are larger than the
  underlying queue maximum message size will reside.
* The format for this attribute is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string for
    identifying a location inside the storage system.
* These external systems are supported:
  - Object stores that support the AWS S3 protocol. These use the scheme "s3".
    For example, "path=s3://mybucket/some/path".
* If not specified, messages exceeding the underlying queue's maximum message
  size are dropped.
* This setting is optional.
* No default.

remote_queue.sqs_smartbus.dead_letter_queue.name = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The name of the dead letter queue.

remote_queue.sqs_smartbus.dead_letter_queue.process_interval = <number><unit>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The frequency of processing messages that have landed in the dead letter queue.
* Examples: 30s, 6h
* Default: 1d

remote_queue.sqs_smartbus.large_message_store.encryption_scheme = sse-s3 | sse-c | none
* Currently not supported. This setting is related to a feature that is
  still under development.
* The encryption scheme used by remote storage
* Default: none.

remote_queue.sqs_smartbus.large_message_store.kms_endpoint = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The endpoint to connect to for generating KMS keys.
* This setting is required if 'large_message_store.encryption_scheme' is
  set to sse-c.
* Examples: https://kms.us-east-2.amazonaws.com
* No default.

remote_queue.sqs_smartbus.large_message_store.key_id = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The ID for the primary key that KMS uses to generate a data key pair. The primary key is stored in AWS.
* This setting is required if 'large_message_store.encryption_scheme' is
```

```
  set to sse-c.
* Examples: alias/sqsssekeytrial, 23456789-abcd-1234-11aa-c50f99011223
* No default.

remote_queue.sqs_smartbus.large_message_store.key_refresh_interval = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The time interval to refresh primary key.
* Default: 24h
```

模块化输入

```
python.version = {default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Either "default" or "python" select the system-wide default Python version.
* Optional.
* Default: Not set; uses the system-wide Python version.

run_introspection = <boolean>
* Whether or not Splunk software runs introspection on a modular input
  scheme when you have disabled all of its associated scripts by using
  the 'disabled = 1' setting.
* This setting applies only for modular inputs. It takes effect only if you
  specify it under a default stanza of a modular input scheme.
* A default stanza of a modular input scheme begins with the notation
  [<scheme name>]
* If set to "true", Splunk software runs introspection on a modular input
  scheme even when you have disabled all the input scripts for the scheme.
* If set to "false", Splunk software does not run introspection on a modular
  input scheme where you have disabled all scripts for the scheme.
* If introspection does not run for a scheme, then Splunk software does not
  register the modular input scripts that are associated with the scheme
  for execution and it is disabled completely.
* Use the 'disabled' setting to enable or disable individual modular input scripts.
* For example, to turn introspection off for the modular input scheme "myScheme":

  [myScheme]
  run_introspection = false

* Default: true
```

inputs.conf.example

```
#   Version 8.2.0
#
# This is an example inputs.conf. Use this file to configure data inputs.
#
# To use one or more of these configurations, copy the configuration block into
# inputs.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# The following configuration reads all the files in the directory /var/log.

[monitor:///var/log]


# The following configuration reads all the files under /var/log/httpd and
# classifies them as sourcetype::access_common.
```

```
#
# When checking a file for new data, if the file's modification time is from
# before seven days ago, the file will no longer be checked for changes
# until you restart the software.

[monitor:///var/log/httpd]
sourcetype = access_common
ignoreOlderThan = 7d


# The following configuration reads all the
# files under /mnt/logs. When the path is /mnt/logs/<host>/... it
# sets the hostname (by file) to <host>.

[monitor:///mnt/logs]
host_segment = 3


# The following configuration listens on TCP port 9997 for raw
# data from ANY remote server (not just a Splunk instance). The host of the
# data is set to the IP address of the remote server.

[tcp://:9997]


# The following configuration listens on TCP port 9995 for raw
# data from ANY remote server. The host of the data is set as the host name of
# the remote server.  All data will also be assigned the sourcetype "log4j" and
# the source "tcp:9995".

[tcp://:9995]
connection_host = dns
sourcetype = log4j
source = tcp:9995


# The following configuration listens on TCP port 9995 for raw
# data from 10.1.1.10.
# All data is assigned the host "webhead-1", the sourcetype "access_common" and
# the the source "//10.1.1.10/var/log/apache/access.log".

[tcp://10.1.1.10:9995]
host = webhead-1
sourcetype = access_common
source = //10.1.1.10/var/log/apache/access.log


# The following configuration listens on TCP port 9996 for
# Splunk cooked event data from ANY splunk forwarder.
# The host of the data is set to the host name of the remote server ONLY IF the
# remote data has no host set, or if it is set to "localhost".

[splunktcp://:9996]
connection_host = dns


# The following configuration listens on TCP port 9996 for
# distributed search data from 10.1.1.100. The data is processed the same as
# locally indexed data.

[splunktcp://10.1.1.100:9996]


# The following configuration listens on TCP port 514 for data
# from syslog.corp.company.net. The data is assigned the sourcetype "syslog"
# and the host is set to the host name of the remote server.

[tcp://syslog.corp.company.net:514]
sourcetype = syslog
```

```
connection_host = dns

# Following configuration limits the acceptance of data to forwarders
# that have been configured with the token value specified in 'token' field.
# NOTE: The token value is encrypted. The REST endpoint encrypts the token
# while saving it.

[splunktcptoken://tok1]
token = $7$ifQTPTzHD/BA8VgKvVcgO1KQAtr3N1C8S/1uK3nAKIE9dd9e9g==

# Set up Secure Sockets Layer (SSL):

[SSL]
serverCert=$SPLUNK_HOME/etc/auth/server.pem
password=password
requireClientCert=false

[splunktcp-ssl:9996]

# Use file system change monitor:

[fschange:/etc/]
fullEvent=true
pollPeriod=60
recurse=true
sendEventMaxSize=100000
index=main

# Monitor the Security Windows Event Log channel, getting the most recent
# events first, then older, and finally continuing to gather newly arriving events

[WinEventLog://Security]
disabled = 0
start_from = newest
evt_dc_name =
evt_dns_name =
evt_resolve_ad_ds =
evt_resolve_ad_obj = 1
checkpointInterval = 5

# Monitor the ForwardedEvents Windows Event Log channel, only gathering the
# events that arrive after monitoring starts, going forward in time.

[WinEventLog://ForwardedEvents]
disabled = 0
start_from = oldest
current_only = 1
batch_size = 10
checkpointInterval = 5

[tcp://9994]
queueSize=50KB
persistentQueueSize=100MB

# Perfmon: Windows performance monitoring examples

# You must specify the names of objects, counters and instances
# exactly as they are shown in the Performance Monitor application. Splunk Web
# is the recommended interface to use to configure performance monitor inputs.

# These stanzas gather performance data from the local system only.
# Use wmi.conf for performance monitor metrics on remote systems.

# Query the PhysicalDisk performance object and gather disk access data for
# all physical drives installed in the system. Store this data in the
# "perfmon" index.

[perfmon://LocalPhysicalDisk]
interval = 10
```

```
object = PhysicalDisk
counters = Disk Bytes/sec; % Disk Read Time; % Disk Write Time; % Disk Time
instances = *
disabled = 0
index = PerfMon

# Gather common memory statistics using the Memory performance object, every
# 5 seconds. Store the data in the "main" index. Since none of the counters
# specified have applicable instances, the instances attribute is not required.

[perfmon://LocalMainMemory]
interval = 5
object = Memory
counters = Committed Bytes; Available Bytes; % Committed Bytes In Use
disabled = 0
index = main

# Gather data on USB activity levels every 10 seconds. Store this data in the
# default index.

[perfmon://USBChanges]
interval = 10
object = USB
counters = Usb Control Data Bytes/Sec
instances = *
disabled = 0

# Admon: Windows Active Directory monitoring examples

# Monitor the default domain controller (DC) for the domain that the computer
# running Splunk belongs to. Start monitoring at the root node of Active
# Directory.
[admon://NearestDC]
targetDc =
startingNode =

# Monitor a specific DC, with a specific starting node. Store the events in
# the "admon" Splunk index. Do not print Active Directory schema. Do not
# index baseline events.

[admon://DefaultTargetDC]
targetDc = pri01.eng.ad.splunk.com
startingNode = OU=Computers,DC=eng,DC=ad,DC=splunk,DC=com
index = admon
printSchema = 0
baseline = 0

# Monitor two different DCs with different starting nodes.
[admon://DefaultTargetDC]
targetDc = pri01.eng.ad.splunk.com
startingNode = OU=Computers,DC=eng,DC=ad,DC=splunk,DC=com

[admon://SecondTargetDC]
targetDc = pri02.eng.ad.splunk.com
startingNode = OU=Computers,DC=hr,DC=ad,DC=splunk,DC=com
```

instance.cfg.conf

以下为 instance.cfg.conf 的规范和示例文件。

instance.cfg.conf.spec

```
#   Version 8.2.0
#
# This file contains the set of attributes and values you can expect to find in
# the SPLUNK HOME/etc/instance.cfg file; the instance.cfg file is not to be
# modified or removed by user.  LEAVE THE instance.cfg FILE ALONE.
#

#
```

全局设置

```
# The [general] stanza defines global settings.
#
```

[general]

```
guid = <GUID in all-uppercase>
* This setting formerly (before 5.0) belonged in the [general] stanza of
  server.conf file.

* Splunk expects that every Splunk instance will have a unique string for this
  value, independent of all other Splunk instances.  By default, Splunk will
  arrange for this without user intervention.

* Currently used by (not exhaustive):
  * Clustering environments, to identify participating nodes.
  * Splunk introspective searches (Splunk on Splunk, Deployment Monitor,
    etc.), to identify forwarders.

* At startup, the following happens:

  * If server.conf has a value of 'guid' AND instance.cfg has no value of
    'guid', then the value will be erased from server.conf and moved to
    instance.cfg file.

  * If server.conf has a value of 'guid' AND instance.cfg has a value of
    'guid' AND these values are the same, the value is erased from
    server.conf file.

  * If server.conf has a value of 'guid' AND instance.cfg has a value of 'guid'
    AND these values are different, startup halts and error is shown.  Operator
    must resolve this error.  We recommend erasing the value from server.conf
    file, and then restarting.

  * If you are hitting this error while trying to mass-clone Splunk installs,
    please look into the command 'splunk clone-prep-clear-config';
    'splunk help' has help.

* See http://www.ietf.org/rfc/rfc4122.txt for how a GUID (a.k.a. UUID) is
  constructed.

* The standard regexp to match an all-uppercase GUID is
  "[0-9A-F]{8}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{4}-[0-9A-F]{12}".
```

instance.cfg.conf.example

```
#   Version 8.2.0
#
# This file contains an example SPLUNK_HOME/etc/instance.cfg file; the
# instance.cfg file is not to be modified or removed by user.  LEAVE THE
# instance.cfg FILE ALONE.
#

[general]
guid = B58A86D9-DF3D-4BF8-A426-DB85C231B699
```

limits.conf

以下为 `limits.conf` 的规范和示例文件。

limits.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure limitations for the search commands.
#
# Each stanza controls different search commands settings.
#
# There is a limits.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name limits.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see limits.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# About Distributed Search
#   Unlike most settings which affect searches, limits.conf settings are not
#   provided by the search head to be used by the search peers.  This means
#   that if you need to alter search-affecting limits in a distributed
#   environment, typically you will need to modify these settings on the
#   relevant peers and search head for consistent results.
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each .conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file takes precedence.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
#
# CAUTION: Do not alter the settings in the limits.conf file unless you know
#     what you are doing. Improperly configured limits might result in
#     splunkd crashes, memory overuse, or both.
```

[default]

```
DelayArchiveProcessorShutdown = <boolean>
* Specifies whether during splunk shutdown archive processor should finish
  processing archive file under process.
* When set to "false": The archive processor abandons further processing of
```

```
  the archive file and will process again from start again.
* When set to "true": The archive processor will complete processing of
  the archive file. Shutdown will be delayed.
* Default: false

max_mem_usage_mb = <non-negative integer>
* Provides a limitation to the amount of RAM, in megabytes (MB), a batch of
  events or results will use in the memory of a search process.
* Operates on an estimation of memory use which is not exact. The estimation can
  deviate by an order of magnitude or so to both the smaller and larger sides.
* The limitation is applied in an unusual way; if the number of results or
  events exceeds maxresults, AND the estimated memory exceeds this limit, the
  data is spilled to disk.
* This means, as a general rule, lower limits will cause a search to use more
  disk I/O and less RAM, and be somewhat slower, but should cause the same
  results to typically come out of the search in the end.
* This limit is applied currently to a number, but not all search processors.
  However, more will likely be added as it proves necessary.
* The number is thus effectively a ceiling on batch size for many components of
  search for all searches run on this system.
* When set to "0": Specifies that the size is unbounded. Searches might be
  allowed to grow to arbitrary sizes.
* NOTE:
  * The mvexpand command uses the 'max_mem_usage_mb' value in a different way.
    * The mvexpand command has no combined logic with 'maxresults'.
    * If the memory limit is exceeded, output is truncated, not spilled to disk.
  * The stats command processor uses the 'max_mem_usage_mb' value in the
    following way.
    * If the estimated memory usage exceeds the specified limit, the results are
      spilled to disk.
    * If 0 is specified, the results are spilled to the disk when the number of
      results exceed the 'maxresultrows' setting.
  * The eventstats command processor uses the 'max_mem_usage_mb' value in the
    following way.
    * Both the 'max_mem_usage_mb' and the 'maxresultrows' settings are used to
      determine the maximum number of results to return.  If the limit for one
      setting is reached, the eventstats processor continues to return results
      until the limit for the other setting is reached. When both limits are
      reached, the eventstats command processor stops adding the requested
      fields to the search results.
    * If you set 'max_mem_usage_mb' to 0, the eventstats command processor uses
      only the 'maxresultrows' setting as the threshold. When the number of
      results exceeds the 'maxresultrows' setting, the eventstats command
      processor stops adding the requested fields to the search results.
* Default: 200

min_batch_size_bytes = <integer>
* Specifies the size, in bytes, of the file/tar after which the
  file is handled by the batch reader instead of the trailing processor.
* Global parameter, cannot be configured per input.
* NOTE: Configuring this to a very small value could lead to backing up of jobs
  at the tailing processor.
* Default: 20971520

regex_cpu_profiling = <boolean>
* Enable CPU time metrics for RegexProcessor. Output will be in the
  metrics.log file.
  Entries in metrics.log will appear per_host_regex_cpu, per_source_regex_cpu,
  per_sourcetype_regex_cpu, per_index_regex_cpu.
* Default: false

agg_cpu_profiling = <boolean>
* Enable CPU time metrics for AggregatorProcessor. Output will be in the
  metrics.log file.
  Entries in metrics.log will appear per_host_agg_cpu, per_source_agg_cpu,
  per_sourcetype_agg_cpu, per_index_agg_cpu.
* Default: false

msp_cpu_profiling = <boolean>
```

```
* Enable CPU time metrics for MetricSchemaProcessor. Output will be in the
  metrics.log file.
  Entries in metrics.log will appear per_host_msp_cpu, per_source_msp_cpu,
  per_sourcetype_msp_cpu, per_index_msp_cpu.
* Default: false

mp_cpu_profiling = <boolean>
* Enable CPU time metrics for MetricsProcessor. Output will be in the
  metrics.log file.
  Entries in metrics.log will appear per_host_mp_cpu, per_source_mp_cpu,
  per_sourcetype_mp_cpu, per_index_mp_cpu.
* Default: false

lb_cpu_profiling = <boolean>
* Enable CPU time metrics for LineBreakingProcessor. Output will be in the
  metrics.log file.
  Entries in metrics.log will appear per_host_lb_cpu, per_source_lb_cpu,
  per_sourcetype_lb_cpu, per_index_lb_cpu.
* Default: false

clb_cpu_profiling = <boolean>
* Enable CPU time metrics for ChunkedLBProcessor. Output will be in the
  metrics.log file.
  Entries in metrics.log will appear per_host_clb_cpu, per_source_clb_cpu,
  per_sourcetype_clb_cpu, per_index_clb_cpu.
* Default: false

file_and_directory_eliminator_reaper_interval = <integer>
* Specifies how often, in seconds, to run the FileAndDirectoryEliminator reaping
  process.
* The FileAndDirectoryEliminator eliminates files and directories by moving them
  to a location that is reaped periodically. This reduces the chance of
  encountering issues due to files being in use.
* On Windows, the FileAndDirectoryEliminator is used by the deployment client
  to delete apps that have been removed or that are being redeployed.
* A value of 0 disables the FileAndDirectoryEliminator.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default (on Windows): 60
* Default (otherwise): 0
```

[searchresults]

```
* This stanza controls search results for a variety of Splunk search commands.

compression_level = <integer>
* Compression level to use when writing search results to .csv.gz files.
* Default: 1

maxresultrows = <integer>
* Configures the maximum number of events are generated by search commands
  which grow the size of your result set (such as multikv) or that create
  events. Other search commands are explicitly controlled in specific stanzas
  below.
* This limit should not exceed 50000.
* Default: 50000

tocsv_maxretry = <integer>
* Maximum number of times to retry the atomic write operation.
* When set to "1": Specifies that there will be no retries.
* Default: 5

tocsv_retryperiod_ms = <integer>
* Period of time to wait before each retry.
* Default: 500

* These setting control logging of error messages to the info.csv file.
  All messages will be logged to the search.log file regardless of
  these settings.
```

[search_info]

```
* This stanza controls logging of messages to the info.csv file.
* Messages logged to the info.csv file are available to REST API clients
  and Splunk Web. Limiting the messages added to info.csv will mean
  that these messages will not be available in the UI and/or the REST API.

filteredindexes_log_level = [DEBUG|INFO|WARN|ERROR]
* Log level of messages when search returns no results because
  user has no permissions to search on queried indexes.
* Default: DEBUG

infocsv_log_level = [DEBUG|INFO|WARN|ERROR]
* Limits the messages which are added to the info.csv file to the stated
  level and above.
* For example, if "infocsv_log_level" is WARN, messages of type WARN
  and higher will be added to the info.csv file.
* Default: INFO

max_infocsv_messages  = <positive integer>
* Limits the number of messages which are added to the info.csv file,
  per log level.
* If more than max_infocsv_messages log entries are generated, additional
  entries will not be logged in the info.csv file. All entries will still be
  logged in the search.log file.
* Default: 20

show_warn_on_filtered_indexes = <boolean>
* Log warnings if search returns no results because user has
  no permissions to search on queried indexes.
* Default: false
```

[subsearch]

```
* This stanza controls subsearch results.
* NOTE: This stanza DOES NOT control subsearch results when a subsearch is
  called by commands such as join, append, or appendcols.
* Read more about subsearches in the online documentation:
  http://docs.splunk.com/Documentation/Splunk/latest/Search/Aboutsubsearches

maxout = <integer>
* Maximum number of results to return from a subsearch.
* This value cannot be greater than or equal to 10500.
* Default: 10000

maxtime = <integer>
* Maximum number of seconds to run a subsearch before finalizing
* Default: 60

ttl = <integer>
* The time to live (ttl), in seconds, of the cache for the results of a given
  subsearch.
* Do not set this below 120 seconds.
* See the definition in the [search] stanza under the "TTL" section for more
  details on how the ttl is computed.
* Default: 300 (5 minutes)

subsearch_artifacts_delete_policy = [immediate|ttl]
* How subsearch artifacts are deleted after a sub search completes.
* Set to `immediate` to have subsearch artifacts remove immediately after a
  subsearch completes.
* Set to 'ttl' to have subsearch artifacts delete after the time-to-live of
  the subsearch has been reached.
* For example, you could use '|noop subsearch_artifacts_delete_policy = [immediate|ttl]'
```

```
  to overwrite the setting for a particular search.
* Default: ttl
```

搜索命令

```
# This section contains the limitation settings for the search command.
# The settings are organized by type of setting.
```

[search]

```
# The settings under the [search] stanza are organized by type of setting.
```

批处理搜索

```
# This section contains settings for batch search.

allow_batch_mode = <boolean>
* Specifies whether or not to allow the use of batch mode which searches
  in disk based batches in a time insensitive manner.
* In distributed search environments, this setting is used on the search head.
* Default: true

batch_search_max_index_values = <integer>
* When using batch mode, this limits the number of event entries read from the
  index file. These entries are small, approximately 72 bytes. However batch
  mode is more efficient when it can read more entries at one time.
* Setting this value to a smaller number can lead to slower search performance.
* A balance needs to be struck between more efficient searching in batch mode
* and running out of memory on the system with concurrently running searches.
* Default: 10000000

batch_search_max_pipeline = <integer>
* This setting controls the number of search pipelines that are launched on the
  indexer during batch search.
* Increasing the number of search pipelines can improve search performance.
  However, this can also result in increased thread and memory usage.
* This setting applies only to searches that run on remote indexers.
* The value for this setting should be >=1. When this setting is >1 on the
  search head, the setting is applied to all remote indexers. Otherwise, remote
  indexers use their local 'batch_search_max_pipeline' setting.
* You can override this setting on a per-search basis by appending
  '|noop batch_search_max_pipeline=<integer>' to the search string. The
  <integer> should be >1.
* Default: 1

batch_search_max_results_aggregator_queue_size = <integer>
* Controls the size, in bytes, of the search results queue to which all
  the search pipelines dump the processed search results.
* Increasing the size can lead to search performance gains.
  Decreasing the size can reduce search performance.
* Do not specify zero for this setting.
* Default: 100000000

batch_search_max_serialized_results_queue_size = <integer>
* Controls the size, in bytes, of the serialized results queue from which
  the serialized search results are transmitted.
* Increasing the size can lead to search performance gains.
  Decreasing the size can reduce search performance.
* Do not specify zero for this setting.
* Default: 100000000

NOTE: The following batch search settings control the periodicity of retries
```

```
      to search peers in the event of failure (Connection errors, and others).
      The interval exists between failure and first retry, as well as
      successive retries in the event of further failures.

batch_retry_min_interval = <integer>
* When batch mode attempts to retry the search on a peer that failed,
  specifies the minimum time, in seconds, to wait to retry the search.
* Default: 5

batch_retry_max_interval = <integer>
* When batch mode attempts to retry the search on a peer that failed,
  specifies the maximum time, in seconds, to wait to retry the search.
* Default: 300 (5 minutes)

batch_retry_scaling = <double>
* After a batch retry attempt fails, uses this scaling factor to increase
  the time to wait before trying the search again.
* The value should be > 1.0.
* Default: 1.5
```

软件包

```
# This section contains settings for bundles and bundle replication.

load_remote_bundles = <boolean>
* On a search peer, allow remote (search head) bundles to be loaded in splunkd.
* Default: false.

replication_file_ttl = <integer>
* The time to live (ttl), in seconds, of bundle replication tarballs,
  for example: *.bundle files.
* Default: 600 (10 minutes)

replication_period_sec  = <integer>
* The minimum amount of time, in seconds, between two successive bundle
  replications.
* Default: 60

sync_bundle_replication = [0|1|auto]
* A flag that indicates whether configuration file replication blocks
  searches or is run asynchronously.
* When set to "auto": The Splunk software uses asynchronous
  replication only if all of the peers support asynchronous bundle
  replication.
  Otherwise synchronous replication is used.
* Default: auto

bundle_status_expiry_time = <interval>
* The amount of time the search head waits before purging the status of a knowledge bundle
  push request to the indexer.
* The status is purged either when it is not queried for a period greater than
  this setting or when its associated bundle is deleted by the reaper.
* The interval can be specified as a string for minutes, seconds, hours, days.
  For example; 60s, 1m, 1h, 1d etc.
* Default: 1h
```

并发

```
# This section contains settings for search concurrency limits.


base_max_searches = <integer>
* A constant to add to the maximum number of searches, computed as a
  multiplier of the CPUs.
```

```
* Default: 6

max_rt_search_multiplier = <decimal number>
* A number by which the maximum number of historical searches is multiplied
  to determine the maximum number of concurrent real-time searches.
* NOTE: The maximum number of real-time searches is computed as:
  max_rt_searches = max_rt_search_multiplier x max_hist_searches
* Default: 1

max_searches_per_cpu = <integer>
* The maximum number of concurrent historical searches for each CPU.
  The system-wide limit of historical searches is computed as:
  max_hist_searches =  max_searches_per_cpu x number_of_cpus + base_max_searches
* NOTE: The maximum number of real-time searches is computed as:
  max_rt_searches = max_rt_search_multiplier x max_hist_searches
* Default: 1
```

分布式搜索

```
# This section contains settings for distributed search connection
# information.

addpeer_skew_limit = <positive integer>
* Absolute value of the largest time skew, in seconds, that is allowed when
  configuring a search peer from a search head, independent of time.
* If the difference in time (skew) between the search head and the peer is
  greater than "addpeer_skew_limit", the search peer is not added.
* This is only relevant to manually added peers. This setting has no effect
  on index cluster search peers.
* Default: 600 (10 minutes)

fetch_remote_search_log = [enabled|disabledSavedSearches|disabled]
* When set to "enabled": All remote search logs are downloaded barring
  the oneshot search.
* When set to "disabledSavedSearches": Downloads all remote logs other
  than saved search logs and oneshot search logs.
* When set to "disabled": Irrespective of the search type, all remote
  search log download functionality is disabled.
* NOTE:
  * The previous Boolean values:[true|false] are still
    supported, but are not recommended.
  * The previous value of "true" maps to the current value of "enabled".
  * The previous value of "false" maps to the current value of "disabled".
* Default: disabledSavedSearches

max_chunk_queue_size = <integer>
* The maximum size of the chunk queue.
* default: 10000000

max_combiner_memevents = <integer>
* Maximum size of the in-memory buffer for the search results combiner.
  The <integer> is the number of events.
* Default: 50000

max_tolerable_skew = <positive integer>
* Absolute value of the largest time skew, in seconds, that is tolerated
  between the native clock on the search head and the native clock on the peer
  (independent of time zone).
* If this time skew is exceeded, a warning is logged. This estimate is
  approximate and tries to account for network delays.
* Default: 60

max_workers_searchparser = <integer>
* The number of worker threads in processing search result when using round
  robin policy.
```

```
* default: 5

results_queue_min_size = <integer>
* The minimum size, of search result chunks, that will be kept from peers
  for processing on the search head before throttling the rate that data
  is accepted.
* The minimum queue size in chunks is the "results_queue_min_size" value
  and the number of peers providing results, which ever is greater.
* Default: 10

result_queue_max_size = <integer>
* The maximum size, in MB, that will be kept from peers for processing on
  the search head before throttling the rate that data is accepted.
* The "results_queue_min_size" value takes precedence. The number of search
  results chunks specified by "results_queue_min_size" will always be
  retained in the queue even if the combined size in MB exceeds the
  "result_queue_max_size" value.
* Default: 100

results_queue_read_timeout_sec = <integer>
* The amount of time, in seconds, to wait when the search executing on the
  search head has not received new results from any of the peers.
* Cannot be less than the 'receiveTimeout' setting in the distsearch.conf
  file.
* Default: 900

batch_wait_after_end = <integer>
* DEPRECATED: Use the 'results_queue_read_timeout_sec' setting instead.
```

字段统计

```
# This section contains settings for field statistics.

fieldstats_update_freq = <number>
* How often to update the field summary statistics, as a ratio to the elapsed
  run time so far.
* Smaller values means update more frequently.
* When set to "0": Specifies to update as frequently as possible.
* Default: 0

fieldstats_update_maxperiod = <number>
* The maximum period, in seconds, for updating field summary statistics.
* When set to "0": Specifies that there is not maximum period. The period
  is dictated by the calculation:
  current_run_time x fieldstats_update_freq
* Fractional seconds are allowed.
* Default: 60

min_freq = <number>
* Minimum frequency of a field that is required for the field to be included
  in the /summary endpoint.
* The frequency must be a fraction >=0 and <=1.
* Default: 0.01 (1%)
```

历史

```
# This section contains settings for search history.

enable_history = <boolean>
* Specifies whether to keep a history of the searches that are run.
* Default: true

max_history_length = <integer>
* Maximum number of searches to store in history for each user and application.
* Default: 1000
```

内存追踪器

```
# This section contains settings for the memory tracker.

enable_memory_tracker = <boolean>
* Specifies if the memory tracker is enabled.
* When set to "false" (disabled): The search is not terminated even if
  the search exceeds the memory limit.
* When set to "true": Enables the memory tracker.
* Must be set to "true" to enable the "search_process_memory_usage_threshold"
  setting or the "search_process_memory_usage_percentage_threshold" setting.
* Default: false

search_process_memory_usage_threshold = <double>
* To use this setting, the "enable_memory_tracker" setting must be set
  to "true".
* Specifies the maximum memory, in MB, that the search process can consume
  in RAM.
* Search processes that violate the threshold are terminated.
* If the value is set to 0, then search processes are allowed to grow
  unbounded in terms of in memory usage.
* Default: 4000 (4GB)

search_process_memory_usage_percentage_threshold = <decimal>
* To use this setting, the "enable_memory_tracker" setting must be set
  to "true".
* Specifies the percent of the total memory that the search process is
  entitled to consume.
* Search processes that violate the threshold percentage are terminated.
* If the value is set to zero, then splunk search processes are allowed to
  grow unbounded in terms of percentage memory usage.
* Any setting larger than 100 or less than 0 is discarded and the default
  value is used.
* Default: 25%
```

元搜索

```
# This section contains settings for meta search.

allow_inexact_metasearch = <boolean>
* Specifies if a metasearch that is inexact be allowed.
* When set to "true": An INFO message is added to the inexact metasearches.
* When set to "false": A fatal exception occurs at search parsing time.
* Default: false

indexed_as_exact_metasearch = <boolean>
* Specifies if a metasearch can process <field>=<value> the same as
  <field>::<value>, if <field> is an indexed field.
* When set to "true": Allows a larger set of metasearches when the
  "allow_inexact_metasearch" setting is "false". However, some of the
  metasearches might be inconsistent with the results of doing a normal
  search.
* Default: false
```

Misc

```
# This section contains miscellaneous search settings.

disk_usage_update_period = <number>
* Specifies how frequently, in seconds, should the search process estimate the
```

```
  artifact disk usage.
* The quota for the amount of disk space that a search job can use is
  controlled by the 'srchDiskQuota' setting in the authorize.conf file.
* Exceeding this quota causes the search to be auto-finalized immediately,
  even if there are results that have not yet been returned.
* Fractional seconds are allowed.
* Default: 10

dispatch_dir_warning_size = <integer>
* Specifies the number of jobs in the dispatch directory that triggers when
  to issue a bulletin message. The message warns that performance might
  be impacted.
* Default: 5000

do_not_use_summaries = <boolean>
* Do not use this setting without working in tandem with Splunk support.
* This setting is a very narrow subset of "summary_mode=none".
* When set to "true": Disables some functionality that is necessary for
  report acceleration.
  * In particular, when set to "true", search processes will no longer query
    the main splunkd's /admin/summarization endpoint for report acceleration
     summary IDs.
* In certain narrow use-cases this might improve performance if report
  acceleration (savedsearches.conf:auto_summarize) is not in use, by lowering
  the main splunkd's process overhead.
* Default: false

enable_datamodel_meval = <boolean>
* Enable concatenation of successively occurring evals into a single
  comma-separated eval during the generation of datamodel searches.
* default: true

enable_conditional_expansion = <boolean>
* Determines whether or not scoped conditional expansion of knowledge
* objects occurs during search string expansion. This only applies on
* the search head.
* NOTE: Do not change unless instructed to do so by Splunk Support.
* Default: true

force_saved_search_dispatch_as_user = <boolean>
* Specifies whether to overwrite the "dispatchAs" value.
* When set to "true": The "dispatchAs" value is overwritten by "user"
  regardless of the [user|owner] value in the savedsearches.conf file.
* When set to "false": The value in the savedsearches.conf file is used.
* You might want to set this to "true" to effectively disable
  "dispatchAs = owner" for the entire install, if that more closely aligns
  with security goals.
* Default: false

max_id_length = <integer>
* Maximum length of the custom search job ID when spawned by using
  REST API argument "id".
* Default: 150

max_id_length_before_hash = <integer>
* Specifies the maximum length of a generated or custom search job ID before
  the Splunk software shortens the directory name. The search job ID itself
  remains the same.
* If set to 0, the Splunk software never hashes the ID. In this case, IDs that
  are too long cause the search to fail.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: 255

search_keepalive_frequency = <integer>
* Specifies how often, in milliseconds, a keepalive is sent while a search
  is running.
* Default: 30000 (30 seconds)

search_keepalive_max = <integer>
```

```
* The maximum number of uninterupted keepalives before the connection is closed.
* This counter is reset if the search returns results.
* Default: 100

search_retry = <boolean>
* Specifies whether the Splunk software retries parts of a search within a
  currently-running search process when there are indexer failures in the
  indexer clustering environment.
* Indexers can fail during rolling restart or indexer upgrade when indexer
  clustering is enabled. Indexer reboots can also result in failures.
* This setting applies only to historical search in batch mode, real-time
  search, and indexed real-time search.
* When set to true, the Splunk software attempts to rerun searches on indexer
  cluster nodes that go down and come back up again. The search process on the
  search head maintains state information about the indexers and buckets.
* NOTE: Search retry is on a best-effort basis, and it is possible
  for Splunk software to return partial results for searches
  without warning when you enable this setting.
* When set to false, the search process will stop returning results from
  a specific indexer when that indexer undergoes a failure.
* Default: false

stack_size = <integer>
* The stack size, in bytes, of the thread that executes the search.
* Default: 4194304 (4MB)

summary_mode = [all|only|none]
* Specifies if precomputed summary data are to be used.
* When set to "all": Use summary data if possible, otherwise use raw data.
* When set to "only": Use summary data if possible, otherwise do not use
  any data.
* When set to "none": Never use precomputed summary data.
* Default: all

track_indextime_range = <boolean>
* Specifies if the system should track the _indextime range of returned
  search results.
* Default: true

use_bloomfilter = <boolean>
* Controls whether to use bloom filters to rule out buckets.
* Default: true

use_metadata_elimination = <boolean>
* Control whether to use metadata to rule out buckets.
* Default: true

results_serial_format = [csv|srs]
* The internal format used for storing serialized results on disk.
* Options:
*    csv: Comma-separated values format
*    srs: Splunk binary format
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: srs

results_compression_algorithm = [gzip|zstd|none]
* The compression algorithm used for storing serialized results on disk.
* Options:
*    gzip: gzip
*    zstd: zstd
*    none: No compression
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: zstd

record_search_telemetry = <boolean>
* Controls whether to record search related metrics in search_telemetry.json
  in the dispatch dir. It also indexes this file to the _introspection index.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: true
```

```
search_telemetry_file_limit = <integer>
* Sets a limit to the number of telemetry files that the Splunk software can
  copy to the var/run/splunk/search_telemetry/ directory, so that it may index
  them in the _introspection index.
* Once this limit is reached, the Splunk software stops adding telemetry files
  to the directory for indexing.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: 30

use_dispatchtmp_dir = <boolean>
* DEPRECATED. This setting has been deprecated and has no effect.

auto_cancel_after_pause = <integer>
* Specifies the amount of time, in seconds, that a search must be paused before
  the search is automatically cancelled.
* If set to 0, a paused search is never automatically cancelled.
* Default: 0

always_include_indexedfield_lispy = <boolean>
* Whether or not search always looks for a field that does not have
  "INDEXED = true" set in fields.conf using both the indexed and non-
  indexed forms.
* If set to "true", when searching for <field>=<value>, the lexicon is
  searched for both "<field>::<value>" and "<value>".
* If set to "false", when searching for <field>=<val>, the lexicon is
  searched only for "<value>".
* Set to "true" if you have fields that are sometimes indexed and
  sometimes not indexed.
* For field names that are always indexed, it is much better
  for performance to set "INDEXED = true" in fields.conf for
  that field instead.
* Default: false

indexed_fields_expansion = <boolean>
* Specifies whether search scopes known indexed fields with the source types
  that they are known to be indexed with.
* When set to 'true', for every field known to be indexed, the Splunk software
  converts every known field=val statement to field::val, scoped with the
  applicable sourcetypes.
* Default: true

max_searchinfo_map_size = <integer>
* Maximum number of entries in each SearchResultsInfo data structure map that
  are used to track information about search behavior
* Default: 50000

track_matching_sourcetypes = <boolean>
* if true, keeps track of the number of events of each sourcetype that match a
  search, and store that information in info.csv
* Default: true

max_audit_sourcetypes = <integer>
* if track_matching_sourcetypes = true, the matching sourcetypes
  for a search will be written to the info=completed audit.log message
  upon completion of the search, up to max_audit_sourcetypes.
* If max_audit_sourcetypes is set to 0, sourcetype information
  will not be added to audit.log.
* If the number of matching sourcetypes exceeds the max_audit_sourcetypes
  setting, the sourcetypes with the greatest number of matching
  events will be included.
* Default: 100

use_search_evaluator_v2 = <boolean>
* If true, search evaluator v2 is used.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: true

execute_postprocess_in_search = <boolean>
```

```
* If true, try to run postprocess searches ahead of time in the search process
  instead of the main splunkd process.
* Default: true
```

分析

```
# This section contains settings related to parsing searches.

max_macro_depth = <integer>
* Maximum recursion depth for macros. Specifies the maximum levels for macro
  expansion.
* It is considered a search exception if macro expansion does not stop after
  this many levels.
* Value must be greater than or equal to 1.
* Default: 100

max_subsearch_depth = <integer>
* Maximum recursion depth for subsearches. Specifies the maximum levels for
  subsearches.
* It is considered a search exception if a subsearch does not stop after
  this many levels.
* Default: 8

min_prefix_len = <integer>
* The minimum length of a prefix before a wildcard (*) to use in the query
  to the index.
* Default: 1

use_directives = <boolean>
* Specifies whether a search can take directives and interpret them
  into arguments.
* This is used in conjunction with the search optimizer in order to
  improve search performance.
* Default: true
```

分析执行设置

```
# This section contains settings for multi-phased execution

phased_execution = <boolean>
DEPRECATED This setting has been deprecated.

phased_execution_mode = [multithreaded|auto|singlethreaded]
* Controls whether searches use the multiple-phase method of search execution,
  which is required for parallel reduce functionality as of Splunk Enterprise
  7.1.0.
* When set to 'multithreaded' the Splunk platform uses the multiple-phase
  search execution method. Allows usage of the 'prjob' command
  and the 'redistribute' command.
* When set to 'auto', the Splunk platform uses the multiple-phase search
  execution method when the 'prjob' command or the 'redistribute' command
  are used in the search string. If neither the 'prjob' command nor the
  'redistribute' command are present in the search string, the single-phase
  search execution method is used.
* When set to 'singlethreaded' the Splunk platform uses the single-threaded
  search execution method, which does not allow usage of the 'prjob' command
  or the 'redistribute' command.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: multithreaded
```

预览

```
# This section contains settings for previews.

max_preview_period = <integer>
* The maximum time, in seconds, between previews.
* Used with the preview interval that is calculated with the
  "preview_duty_cycle" setting.
* When set to "0": Specifies unlimited time between previews.
* Default: 0

min_preview_period = <integer>
* The minimum time, in seconds, required between previews. When the calculated
  interval using "preview_duty_cycle" indicates previews should be run
  frequently. This setting is used to limit the frequency with which previews
  run.
* Default: 1

preview_duty_cycle = <number>
* The maximum time to spend generating previews, as a fraction of the total
  search time.
* Must be > 0.0 and < 1.0
* Default: 0.25

preview_freq = <timespan> or <ratio>
* Minimum amount of time between results preview updates.
* If specified as a number, between > 0 and  < 1, the minimum time between
  previews is computed as a ratio of the amount of time that the search
  has been running, or as a ratio of the length of the time window for
  real-time windowed searches.
* Default: a ratio of 0.05
```

配额或队列搜索

```
# This section contains settings for quota or queued searches.

default_allow_queue = <boolean>
* Unless otherwise specified by using a REST API argument, specifies if an
  asynchronous job spawning request should be queued on quota violation.
  If not, an http error of server too busy is returned.
* Default: 1 (true)

dispatch_quota_retry = <integer>
* The maximum number of times to retry to dispatch a search when the quota has
  been reached.
* Default: 4

dispatch_quota_sleep_ms = <integer>
* The time, in milliseconds, between retrying to dispatch a search when a
  quota is reached.
* Retries the given number of times, with each successive wait 2x longer than
  the previous wait time.
* Default: 100

enable_cumulative_quota = <boolean>
* Specifies whether to enforce cumulative role based quotas.
* Default: false

queued_job_check_freq = <number>
* Frequency, in seconds, to check queued jobs to determine if the jobs can
  be started.
* Fractional seconds are allowed.
* Default: 1.
```

读取块控制

```
# This section contains settings for reading chunk controls.

chunk_multiplier = <integer>
* A multiplier that the "max_results_perchunk", "min_results_perchunk", and
  "target_time_perchunk" settings are multiplied by for a long running search.
* Default: 5

long_search_threshold = <integer>
* The time, in seconds, until a search is considered "long running".
* Default: 2

max_rawsize_perchunk = <integer>
* The maximum raw size, in bytes, of results for each call to search
  (in dispatch).
* When set to "0": Specifies that there is no size limit.
* This setting is not affected by the "chunk_multiplier" setting.
* Default: 100000000 (100MB)

max_results_perchunk = <integer>
* Maximum results for each call to search (in dispatch).
* Must be less than or equal to the "maxresultrows" setting.
* Default: 2500

min_results_perchunk = <integer>
* The minimum results for each call to search (in dispatch).
* Must be less than or equal to the "max_results_perchunk" setting.
* Default: 100

target_time_perchunk = <integer>
* The target duration, in milliseconds, of a particular call to fetch
  search results.
* Default: 2000 (2 seconds)
```

实时

```
# This section contains settings for real-time searches.

check_splunkd_period = <number>
* Amount of time, in seconds, that determines how frequently the search process
  (when running a real-time search) checks whether the parent process
  (splunkd) is running or not.
* Fractional seconds are allowed.
* Default: 60 (1 minute)

realtime_buffer = <integer>
* Maximum number of accessible events to keep for real-time searches in
  Splunk Web.
* Acts as circular buffer after this buffer limit is reached.
* Must be greater than or equal to 1.
* Default: 10000
```

远程存储

```
# This section contains settings for remote storage.

bucket_localize_acquire_lock_timeout_sec = <integer>
* The maximum amount of time, in seconds, to wait when attempting to acquire a
  lock for a localized bucket.
* When set to 0, waits indefinitely.
* This setting is only relevant when using remote storage.
* Default: 60 (1 minute)

bucket_localize_connect_timeout_max_retries = <integer>
* The maximum number of times to retry when getting connect timeouts
```

```
  while trying to localize a bucket.
* When set to 0, do not retry
* This setting is only relevant when using remote storage.
* Default: 5

bucket_localize_max_timeout_sec = <integer>
* The maximum amount of time, in seconds, to spend localizing a bucket stored
  in remote storage.
* If the bucket contents (what is required for the search) cannot be localized
  in that timeframe, the bucket will not be searched.
* When set to "0": Specifies an unlimited amount of time.
* This setting is only relevant when using remote storage.
* Default: 300 (5 minutes)

bucket_localize_status_check_period_ms = <integer>
* The amount of time, in milliseconds, between consecutive status checks to see
  if the needed bucket contents required by the search have been localized.
* This setting is only relevant when using remote storage.
* The minimum and maximum values are 10 and 60000, respectively.  If the
  specified value falls outside this range, it is effectively set to the
  nearest value within the range.  For example, if you set the value to
  70000, the effective value will be 60000.
* Default: 50 (.05 seconds)

bucket_localize_status_check_backoff_start_ms = <integer>
* When explicitly set, and different from bucket_localize_status_check_period_ms,
  enables exponential backoff between consecutive status checks for bucket
  localization. Starting from the specified amount of time, in milliseconds, up to
  bucket_localize_status_check_period_ms.
* This setting is only relevant when using remote storage.
* Setting this option is beneficial when bucket contents localize quickly (e.g., in
  less time than the minimal allowed value for bucket_localize_status_check_period_ms),
  or with high variability.
* The minimum and maximum values are 1 and bucket_localize_status_check_period_ms,
  respectively. If the specified value falls outside this range, it is effectively
  set to the nearest value within the range.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: 0 (no backoff)

bucket_localize_max_lookahead = <integer>
* Specifies the maximum number of buckets the search command localizes
  for look-ahead purposes, in addition to the required bucket.
* Increasing this value can improve performance, at the cost of additional
  network/io/disk utilization.
* Valid values are 0-64. Any value larger than 64 will be set to 64. Other
  invalid values will be discarded and the default will be substituted.
* This setting is only relevant when using remote storage.
* Default: 5

bucket_localize_lookahead_priority_ratio = <integer>
* A value of N means that lookahead localizations will occur only 1 out of N
  search localizations, if any.
* Default: 5

bucket_predictor = [consec_not_needed|everything]
* Specifies which bucket file prediction algorithm to use.
* Do not change this unless you know what you are doing.
* Default: consec_not_needed
```

结果存储

```
# This section contains settings for storing final search results.

max_count = <integer>
* The number of events that can be accessible in any given status bucket
  (when status_buckets = 0).
```

```
* The last accessible event in a call that takes a base and count.
* NOTE: This value does not reflect the number of events displayed in the
  UI after the search is evaluated or computed.
* Default: 500000

max_events_per_bucket = <integer>
* For searches with "status_buckets>0", this setting limits the number of
  events retrieved for each timeline bucket.
* Default: 1000 in code.

status_buckets = <integer>
* The approximate maximum number buckets to generate and maintain in the
  timeline.
* Default: 0, which means do not generate timeline information

read_final_results_from_timeliner = <boolean>
* When you run a search of event data where 'status_buckets > 0', this setting
  controls the contents of the results.csv.gz and results.srs.zstd files in the
  search artifact.
* When set to "true", the final results saved to disk by the search process on
  the search head are a sample of events ready from the timeliner.
* When set to "false", the final results saved to disk by the search process on
  the search head are all events produced by the last SPL command, up to a
  limit of 'max_count' events.
* The 'read_final_results_from_timeliner' setting affects the output of
  subsequent 'loadjob' searches.
    * When set to "true" the 'loadjob' search returns the sample of the final
      results, not the full result set. For example, if the full result set is
      10k results, it might return only 1000 results.
    * When set to "false" the 'loadjob' search returns the full set of search
      results. For example, if the full result set is 10k results, it returns 10k
      results.
* Default: true

truncate_report = [1|0]
* Specifies whether or not to apply the "max_count" setting to report output.
* Default: 0 (false)

write_multifile_results_out = <boolean>
* At the end of the search, if results are in multiple files, write out the
  multiple files to the results_dir directory, under the search results
  directory.
* This setting speeds up post-processing search, since the results will
  already be split into appropriate size files.
* Default: true
```

搜索过程

```
# This section contains settings for search process configurations.

idle_process_cache_search_count = <integer>
* The number of searches that the search process must reach, before purging
  older data from the cache. The purge is performed even if the
  "idle_process_cache_timeout" has not been reached.
* When a search process is allowed to run more than one search, the search
  process can cache some data between searches.
* When set to a negative value: No purge occurs, no matter how many
  searches are run.
* Has no effect on Windows if "search_process_mode" is not "auto"
  or if "max_searches_per_process" is set to 0 or 1.
* Default: 8

idle_process_cache_timeout = <number>
* The amount of time, in seconds, that a search process must be idle before
  the system purges some older data from these caches.
* When a search process is allowed to run more than one search, the search
```

```
  process can cache some data between searches.
* When set to a negative value: No purge occurs, no matter on how long the
  search process is idle.
* When set to "0": Purging always occurs, regardless of whether the process
  has been idle or not.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* Default: 0.5 (seconds)

idle_process_regex_cache_hiwater = <integer>
* A threshold for the number of entries in the regex cache. If the regex cache
  grows to larger than this number of entries, the systems attempts to
  purge some of the older entries.
* When a search process is allowed to run more than one search, the search
  process can cache compiled regex artifacts.
* Normally the "idle_process_cache_search count" and the
  "idle_process_cache_timeout" settings will keep the regex cache a
  reasonable size.  This setting is to prevent the cache from growing
  extremely large during a single large search.
* When set to a negative value: No purge occurs, not matter how large
  the cache.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* Default: 2500

idle_process_reaper_period = <number>
* The amount of time, in seconds, between checks to determine if there are
  too many idle search processes.
* When a search process is allowed to run more than one search, the system
  checks if there are too many idle search processes.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* Default: 30

launcher_max_idle_checks = <integer>
* Specifies the number of idle processes that are inspected before giving up
  and starting a new search process.
* When allowing more than one search to run for each process, the system
  attempts to find an appropriate idle process to use.
* When set to a negative value: Every eligible idle process is inspected.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* Default: 5

launcher_threads = <integer>
* The number of server thread to run to manage the search processes.
* Valid only when more than one search is allowed to run for each process.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* Default: -1 (a value is selected automatically)

max_old_bundle_idle_time = <number>
* The amount of time, in seconds, that a process bundle must be idle before
  the process bundle is considered for reaping.
* Used when reaping idle search processes and the process is not configured
  with the most recent configuration bundle.
* When set to a negative value: The idle processes are not reaped sooner
  than normal if the processes are using an older configuration bundle.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* Default: 5

max_searches_per_process = <integer>
* On UNIX, specifies the maximum number of searches that each search process
  can run before exiting.
* After a search completes, the search process can wait for another search to
  start and the search process can be reused.
* When set to "0" or "1": The process is never reused.
* When set to a negative value: There is no limit to the number of searches
```

```
  that a process can run.
* Has no effect on Windows if search_process_mode is not "auto".
* Default: 500

max_time_per_process = <number>
* Specifies the maximum time, in seconds, that a process can spend running
  searches.
* When a search process is allowed to run more than one search, limits how
  much time a process can accumulate running searches before the process
  must exit.
* When set to a negative value: There is no limit on the amount of time a
  search process can spend running.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* NOTE: A search can run longer than the value set for "max_time_per_process"
  without being terminated. This setting ONLY prevents the process from
  being used to run additional searches after the maximum time is reached.
* Default: 300 (5 minutes)

process_max_age = <number>
* Specifies the maximum age, in seconds, for a search process.
* When a search process is allowed to run more than one search, a process
  is not reused if the process is older than the value specified.
* When set to a negative value: There is no limit on the the age of the
  search process.
* This setting includes the time that the process spends idle, which is
  different than "max_time_per_process" setting.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* NOTE: A search can run longer than the the time set for "process_max_age"
  without being terminated. This setting ONLY prevents that process from
  being used to run more searches after the search completes.
* Default: 7200 (120 minutes or 2 hours)

process_min_age_before_user_change = <number>
* The minimum age, in seconds, of an idle process before using a process
  from a different user.
* When a search process is allowed to run more than one search, the system
  tries to reuse an idle process that last ran a search by the same Splunk
  user.
* If no such idle process exists, the system tries to use an idle process
  from a different user. The idle process from a different user must be
  idle for at least the value specified for the
  "process_min_age_before_user_change" setting.
* When set to "0": Any idle process by any Splunk user can be reused.
* When set to a negative value: Only a search process by same Splunk user
  can be reused.
* Has no effect on Windows if "search_process_mode" is not "auto" or
  if "max_searches_per_process" is set to 0 or 1.
* Default: 4

search_process_mode = [auto|traditional|debug <debugging-command><debugging-args>]
* Controls how search processes are started.
* When set to "traditional": Each search process is initialized completely
  from scratch.
* When set to "debug": When set to a string beginning with "debug",
  searches are routed through the <debugging-command>, where the user can
  "plug in" debugging tools.
  * The <debugging-command> must reside in one of the following locations:
    * $SPLUNK_HOME/etc/system/bin/
    * $SPLUNK_HOME/etc/apps/$YOUR_APP/bin/
    * $SPLUNK_HOME/bin/scripts/
  * The <debugging-args> are passed, followed by the search command it
    would normally run, to <debugging-command>
    * For example, given the following setting:
        search_process_mode = debug $SPLUNK_HOME/bin/scripts/search-debugger.sh 5
      A command similar to the following is run:
        $SPLUNK_HOME/bin/scripts/search-debugger.sh 5 splunkd search \
        --id=... --maxbuckets=... --ttl=... [...]
```

```
* Default: auto

search_process_configure_oom_score_adj = <boolean>
* Determines whether to increase the value of the oom_score (Out of Memory
  Score) for search processes.
* The oom_score is proportional to the amount of memory used by the process,
  and shows how likely the system is to terminate the process due to low
  available memory. When memory runs low, the system kills the process with the
  highest oom_score to free the most memory.
* If set to true, when system runs out of memory, the kernel preferentially
  kills search processes to protect the main splunkd process and make the
  overall service more stable.
* Applies to Linux operating system only.
* Default: true.

search_process_set_oom_score_adj = <integer>
* Specifies the value added to the existing oom_score for search processes.
* Applies only when 'search_process_configure_oom_score_adj' is set to true.
* The higher the value, the more likely the system is to kill search processes
  before the main splunkd process, decreasing the risk of a Splunk software
  crash.
* Supports integers between 0 and 1000. If set to 0, this setting has no
  effect on searches.
* Generally, the highest oom_score of main splunkd process is less than 700.
  Thus, by adding the default value, in most cases the system is likely to kill
  search processes before it kills the main splunkd process.
* Default: 700.
```

search_messages.log

```
log_search_messages = <boolean>
* Specifies whether splunkd promotes user-facing search messages
  from $SPLUNK_HOME/var/run/splunk/dispatch/<sid>/info.csv to
  $SPLUNK_HOME/var/log/splunk/search_messages.log.
* Splunkd does not promote messages with a severity that is ranked
  lower than the value of search_messages_severity.
* Splunkd promotes messages only after search has been audited.
* The search_messages.log file follows this format when it logs messages:
  orig_component="..." sid="..." peer_name="..." message=...
* Default: false

search_messages_severity = <string>
* When 'log_search_messages = true', this setting specifies the lowest
  severity of message that splunkd logs to search_messages.log.
  The processor ignores all messages with a lower severity.
* Possible values in ascending order: DEBUG, INFO, WARN, ERROR
  * For example, when 'search_messages_severity = WARN', splunkd logs
    only messages with 'WARN' and 'ERROR' severities.
* Default: WARN
```

搜索重用

```
# This section contains settings for search reuse.

allow_reuse = <boolean>
* Specifies whether to allow normally executed historical searches to be
  implicitly re-used for newer requests if the newer request allows it.
* Default: true

reuse_map_maxsize = <integer>
* Maximum number of jobs to store in the reuse map.
* Default: 1000
```

Splunk Analytics for Hadoop

```
# This section contains settings for use with Splunk Analytics for Hadoop.

reduce_duty_cycle = <number>
* The maximum time to spend performing the reduce, as a fraction of total
  search time.
* Must be > 0.0 and < 1.0.
* Default: 0.25

reduce_freq = <integer>
* When the specified number of chunks is reached, attempt to reduce
  the intermediate results.
* When set to "0": Specifies that there is never an attempt to reduce the
  intermediate result.
* Default: 10

remote_reduce_limit = <unsigned long>
* The number of results processed by a streaming search before a reduce
  is forced.
* NOTE: this option applies only if the search is run with --runReduce=true
  (currently only Splunk Analytics for Hadoop does this)
* When set to "0": Specifies that there is no limit.
* Default: 1000000

unified_search = <boolean>
* Specifies if unified search is turned on for hunk archiving.
* Default: false
```

状态

```
# This section contains settings for search status.

status_cache_size = <integer>
* The number of status data for search jobs that splunkd can cache in RAM.
  This cache improves performance of the jobs endpoint.
* Default: 10000

status_period_ms = <integer>
* The minimum amount of time, in milliseconds, between successive
  status/info.csv file updates.
* This setting ensures that search does not spend significant time just
  updating these files.
  * This is typically important for very large number of search peers.
  * It could also be important for extremely rapid responses from search
    peers, when the search peers have very little work to do.
* Default: 1000 (1 second)
```

时间线

```
# This section contains settings for timelines.

remote_event_download_finalize_pool = <integer>
* Size of the pool, in threads, responsible for writing out the full
  remote events.
* Default: 5

remote_event_download_initialize_pool = <integer>
* Size of the pool, in threads, responsible for initiating the remote
  event fetch.
* Default: 5
```

```
remote_event_download_local_pool = <integer>
* Size of the pool, in threads, responsible for reading full local events.
* Default: 5

remote_timeline = <boolean>
* Specifies if the timeline can be computed remotely to enable better
  map/reduce scalability.
* Default: 1 (true)

remote_timeline_connection_timeout = <integer>
* Connection timeout, in seconds, for fetching events processed by remote
  peer timeliner.
* Default: 5.

remote_timeline_fetchall = <boolean>
* When set to "1" (true): Splunk fetches all events accessible through the
  timeline from the remote peers before the job is considered done.
  * Fetching of all events might delay the finalization of some searches,
    typically those running in verbose mode from the main Search view in
    Splunk Web.
  * This potential performance impact can be mitigated by lowering the
    "max_events_per_bucket" settings.
* When set to "0" (false): The search peers might not ship all matching
  events to the search head, particularly if there is a very large number
  of them.
   * Skipping the complete fetching of events back to the search head will
     result in prompt search finalization.
   * Some events may not be available to browse in the UI.
* This setting does NOT affect the accuracy of search results computed by
  reporting searches.
* Default: 1 (true)

remote_timeline_max_count = <integer>
* Maximum number of events to be stored per timeline bucket on each search
  peer.
* Default: 10000

remote_timeline_max_size_mb = <integer>
* Maximum size of disk, in MB, that remote timeline events should take
  on each peer.
* If the limit is reached, a DEBUG message is emitted and should be
  visible in the job inspector or in messages.
* Default: 100

remote_timeline_min_peers = <integer>
* Minimum number of search peers for enabling remote computation of
  timelines.
* Default: 1

remote_timeline_parallel_fetch = <boolean>
* Specifies whether to connect to multiple peers at the same time when
  fetching remote events.
* Default: true

remote_timeline_prefetch = <integer>
* Specifies the maximum number of full eventuate that each peer should
  proactively send at the beginning.
* Default: 100

remote_timeline_receive_timeout = <integer>
* Receive timeout, in seconds, for fetching events processed by remote peer
  timeliner.
* Default: 10

remote_timeline_send_timeout = <integer>
* Send timeout, in seconds, for fetching events processed by remote peer
  timeliner.
* Default: 10
```

```
remote_timeline_thread = <boolean>
* Specifies whether to use a separate thread to read the full events from
  remote peers if "remote_timeline" is used and "remote_timeline_fetchall"
  is set to "true".
  Has no effect if "remote_timeline" or "remote_timeline_fetchall" is set to
  "false".
* Default: 1 (true)

remote_timeline_touchperiod = <number>
* How often, in seconds, while a search is running to touch remote timeline
  artifacts to keep the artifacts from being deleted by the remote peer.
* When set to "0": The remote timelines are never touched.
* Fractional seconds are allowed.
* Default: 300 (5 minutes)

timeline_events_preview = <boolean>
* When set to "true": Display events in the Search app as the events are
  scanned, including events that are in-memory and not yet committed, instead
  of waiting until all of the events are scanned to see the search results.
  You will not be able to expand the event information in the event viewer
  until events are committed.
* When set to "false": Events are displayed only after the events are
  committed (the events are written to the disk).
* This setting might increase disk usage to temporarily save uncommitted
  events while the search is running. Additionally, search performance might
  be impacted.
* Default: false

timeline_freq = <timespan> or <ratio>
* The minimum amount of time, in seconds, between timeline commits.
* If specified as a number < 1 (and > 0), minimum time between commits is
  computed as a ratio of the amount of time that the search has been running.
* Default: 0
```

TTL

```
# This section contains time to live (ttl) settings.

cache_ttl = <integer>
* The length of time, in seconds, to persist search cache entries.
* Default: 300 (5 minutes)

default_save_ttl = <integer>
* How long, in seconds, the ttl for a search artifact should be extended in
  response to the save control action.
* When set to 0, the system waits indefinitely.
* Default: 604800 (1 week)

failed_job_ttl = <integer>
* How long, in seconds, the search artifacts should be stored on disk after
  a job has failed. The ttl is computed relative to the modtime of the
  status.csv file of the job, if the file exists, or the modtime of the
  artifact directory for the search job.
* If a job is being actively viewed in the Splunk UI then the modtime of
  the status.csv file is constantly updated such that the reaper does not
  remove the job from underneath.
* Default: 86400 (24 hours)

remote_ttl = <integer>
* How long, in seconds, the search artifacts from searches run in behalf of
  a search head should be stored on the indexer after completion.
* Default: 600 (10 minutes)

ttl = <integer>
* How long, in seconds, the search artifacts should be stored on disk after
```

```
  the job completes. The ttl is computed relative to the modtime of the
  status.csv file of the job, if the file exists, or the modtime of the
  artifact directory for the search job.
* If a job is being actively viewed in the Splunk UI then the modtime of
  the status.csv file is constantly updated such that the reaper does not
  remove the job from underneath.
* Default: 600 (10 minutes)

check_search_marker_done_interval = <integer>
* The amount of time, in seconds, that elapses between checks of search marker
  files, such as hot bucket markers and backfill complete markers.
* This setting is used to identify when the remote search process on the
  indexer completes processing all hot bucket and backfill portions of
  the search.
* Default: 60

check_search_marker_sleep_interval = <integer>
* The amount of time, in seconds, that the process will sleep between
  subsequent search marker file checks.
* This setting is used to put the process into sleep mode periodically on the
  indexer, then wake up and check whether hot buckets and backfill portions
  of the search are complete.
* Default: 1

srtemp_dir_ttl = <integer>
* The time to live, in seconds, for the temporary files and directories
  within the intermediate search results directory tree.
* These files and directories are located in $SPLUNK_HOME/var/run/splunk/srtemp.
* Every 'srtemp_dir_ttl' seconds, the reaper removes files and directories
  within this tree to reclaim disk space.
* The reaper measures the time to live through the newest file modification time
  within the directory.
* When set to 0, the reaper does not remove any files or directories in this
  tree.
* Default: 86400 (24 hours)
```

不支持的设置

```
# This section contains settings that are no longer supported.

enable_status_cache = <boolean>
* This is not a user tunable setting.  Do not use this setting without
  working in tandem with Splunk personnel.  This setting is not tested at
  non-default.
* This controls whether the status cache is used, which caches information
  about search jobs (and job artifacts) in memory in main splunkd.
* Normally this cacheing is enabled and assists performance. However, when
  using Search Head Pooling, artifacts in the shared storage location will be
  changed by other search heads, so this cacheing is disabled.
* Explicit requests to jobs endpoints , eg /services/search/jobs/<sid> are
  always satisfied from disk, regardless of this setting.
* Default (when search head pooling is not enabled): true
* Default (when search head pooling is enabled): false

status_cache_in_memory_ttl = <positive integer>
* This is not a user tunable setting. Do not use this setting without working
  in tandem with Splunk personnel. This setting is not tested at non-default.
* This setting has no effect unless search head pooling is enabled, AND
  enable_status_cache has been set to true.
* If set, controls the number of milliseconds which a status cache entry may be
  used before it expires.
* Default: 60000 (60 seconds)
```

未使用的设置

```
# This section contains settings that have been deprecated. These settings
# remain listed in this file for backwards compatibility.

max_bucket_bytes = <integer>
* This setting has been deprecated and has no effect.

rr_min_sleep_ms = <integer>
* REMOVED.  This setting is no longer used.

rr_max_sleep_ms = <integer>
* REMOVED.  This setting is no longer used.

rr_sleep_factor = <integer>
* REMOVED.  This setting is no longer used.
```

其他命令设置

```
# This section contains the stanzas for the SPL commands, except for the
# search command, which is in separate section.
```

[anomalousvalue]

```
maxresultrows = <integer>
* Configures the maximum number of events that can be present in memory at one
  time.
* Default: The value set for 'maxresultrows' in the [searchresults] stanza,
  which is 50000 by default.

maxvalues = <integer>
* Maximum number of distinct values for a field.
* Default: 100000

maxvaluesize = <integer>
* Maximum size, in bytes, of any single value (truncated to this size if
  larger).
* Default: 1000
```

[associate]

```
maxfields = <integer>
* Maximum number of fields to analyze.
* Default: 10000

maxvalues = <integer>
* Maximum number of values for any field to keep track of.
* Default: 10000

maxvaluesize = <integer>
* Maximum length of a single value to consider.
* Default: 1000
```

[autoregress]

```
maxp = <integer>
* Maximum number of events for auto regression.
* Default: 10000

maxrange = <integer>
* Maximum magnitude of range for p values when given a range.
* Default: 1000
```

[concurrency]

```
batch_search_max_pipeline = <integer>
* Controls the number of search pipelines launched at the indexer during
  batch search.
* Increasing the number of search pipelines should help improve search
  performance but there will be an increase in thread and memory usage.
* This value applies only to searches that run on remote indexers.
* Default: 1

max_count = <integer>
* Maximum number of detected concurrencies.
* Default: 10000000
```

[correlate]

```
maxfields = <integer>
* Maximum number of fields to correlate.
* Default: 1000
```

[ctable]

```
* This stanza controls settings for the contingency command.
* Aliases for the contingency command are: ctable and counttable.

maxvalues = <integer>
* Maximum number of columns/rows to generate (the maximum number of distinct
  values for the row field and column field).
* Default: 1000
```

[dbinspect]

```
maxresultrows = <integer>
* The maximum number of result rows that the dbinspect command can fetch
  at one time.
* A smaller value uses less search head memory in scenarios with large
  number of buckets. However, setting the value too small decreases
  search performance.
* Note: Do not change this setting unless instructed to do so by Splunk Support.
* Default: 50000
```

[discretize]

```
* This stanza contains the settings for the bin command.
* Aliases for the bin command are: bucket and discretize.

default_time_bins = <integer>
* When discretizing time for timechart or explicitly via bin, the default bins
  to use if no span or bins is specified.
* Default: 100

maxbins = <integer>
* Maximum number of bins to discretize into.
* If 'maxbins' is not specified or = 0, 'maxbins' uses the value set for
  'maxresultrows' in the [searchresults] stanza, which is 50000 by default.
* Default: 50000
```

[findkeywords]

```
maxevents = <integer>
* Maximum number of events used by the findkeywords command and the
  Patterns tab.
* Default: 50000
```

[geomfilter]

```
enable_clipping = <boolean>
* Whether or not polygons are clipped to the viewport provided by the
  render client.
* Default: true

enable_generalization = <boolean>
* Whether or not generalization is applied to polygon boundaries to reduce
  point count for rendering.
* Default: true
```

[geostats]

```
filterstrategy = <integer>
* Controls the selection strategy on the geoviz map.
* Valid values are 1 and 2.

maxzoomlevel = <integer>
* Controls the number of zoom levels that geostats will cluster events on.

zl_0_gridcell_latspan = <decimal>
* Controls what is the grid spacing in terms of latitude degrees at the
  lowest zoom level, which is zoom-level 0.
* Grid-spacing at other zoom levels are auto created from this value by
  reducing by a factor of 2 at each zoom-level.

zl_0_gridcell_longspan = <decimal>
* Controls what is the grid spacing in terms of longitude degrees at the
  lowest zoom level, which is zoom-level 0
* Grid-spacing at other zoom levels are auto created from this value by
  reducing by a factor of 2 at each zoom-level.
```

[inputcsv]

```
mkdir_max_retries = <integer>
* Maximum number of retries for creating a tmp directory (with random name as
  subdir of SPLUNK_HOME/var/run/splunk)
* Default: 100
```

[iplocation]

```
db_path = <path>
* The absolute path to the GeoIP database in the MMDB format.
* The "db_path" setting does not support standard Splunk environment
  variables such as SPLUNK_HOME.
* Default: The database that is included with the Splunk platform.
```

[join]

```
subsearch_maxout = <integer>
* The maximum number of result rows to output from subsearch to join against
* The join command subsearch results are restricted by two settings, 'subsearch_maxout'
setting in this stanza and 'maxresultrows' setting in the [searchresults] stanza.
* Default: 50000

subsearch_maxtime = <integer>
```

```
* Maximum search time, in seconds, before auto-finalization of subsearch.
* Default: 60

subsearch_timeout = <integer>
* Maximum time, in seconds, to wait for subsearch to fully finish.
* Default: 120
```

[kmeans]

```
maxdatapoints = <integer>
* Maximum data points to do kmeans clusterings for.
* Default: 100000000 (100 million)

maxkrange = <integer>
* Maximum number of k values to iterate over when specifying a range.
* Default: 100

maxkvalue = <integer>
* Maximum number of clusters to attempt to solve for.
* Default: 1000
```

[lookup]

```
batch_index_query = <boolean>
* Should non-memory file lookups (files that are too large) use batched queries
  to possibly improve performance?
* Default: true

batch_response_limit = <integer>
* When doing batch requests, the maximum number of matches to retrieve.
* If more than this limit of matches would otherwise be retrieved, the lookup
  falls back to non-batch mode matching.
* Default: 5000000

max_lookup_messages = <positive integer>
* If more than "max_lookup_messages" log entries are generated, additional
  entries will not be logged in info.csv. All entries will still be logged in
  search.log.

max_matches = <integer>
* DEPRECATED: Use this setting in transforms.conf for lookup definitions.

max_memtable_bytes = <integer>
* Maximum size, in bytes, of static lookup file to use an in-memory index for.
* Lookup files with size above max_memtable_bytes will be indexed on disk
* NOTE: This setting also applies to lookup files loaded through the lookup()
  eval function *which runs at search time*. The same function if called through
  the ingest-eval functionality, uses ingest_max_memtable_bytes instead.
* CAUTION: Setting this to a large value results in loading large lookup
  files in memory. This leads to a bigger process memory footprint.
* Default: 26214400 (25MB)

ingest_max_memtable_bytes = <integer>
* Maximum size, in bytes, of static lookup file to use for a lookup when
  used in the ingest context. (i.e when used with the lookup() eval function
  at ingest time).
* Lookup files with size above ingest_max_memtable_bytes cannot be used for
  the lookup() eval function when used with the ingest-eval functionality.
* CAUTION: Setting this to a large value results in loading large lookup
  files in memory. This leads to a bigger process (splunkd) memory footprint.
* Default: 10485760 (10MB)

ingest_lookup_refresh_period_secs = <integer>
* Period of time, in seconds, after which the in-memory lookup tables that are used
  with the lookup() eval function at ingest time are refreshed.
* This does not apply if the lookup() function is used at search time.
* Default: 60 (1 minute).

indexed_csv_ttl = <positive integer>
* Specifies the amount of time, in seconds, that a indexed CSV lookup table
  can exist without update before it is removed by Splunk software.
* On a period set by 'indexed_csv_keep_alive_timeout', Splunk software checks
  the CSV lookup table to see if it has been updated. If it has been updated,
  Splunk software modifies a special token file.
* At the end of the 'indexed_csv_ttl' period Splunk software looks at the token
  file. If the token file shows that its CSV lookup table has been updated,
  Splunk software does not delete that CSV lookup table.
* Default: 300

indexed_csv_keep_alive_timeout = <positive integer>
* Sets the period, in seconds, for an activity check that Splunk software
  performs on indexed CSV lookup tables.
* When Splunk software performs a CSV lookup table check and finds that the
  table has been updated, it marks this activity on a token file. The token
  file update prevents the CSV lookup table from being deleted after
  'indexed_csv_ttl' seconds of inactivity have passed.
* Default: 30

indexed_csv_inprogress_max_timeout = <positive integer>
* Sets the maximum time, in seconds, for Splunk software to wait for ongoing
  indexing of a CSV lookup table to finish before failing any search that is
  awaiting the lookup table.
* Default: 300

max_reverse_matches = <integer>
* maximum reverse lookup matches (for search expansion)
* Default: 50

shared_provider_cache_size = <integer>
* Sets the cache size in bytes that the Splunk software uses when it shares CSV lookups
  across multiple lookup commands.
* The <integer> represents the size of the cache in bytes. This is incremented by the
  size of each in-memory file (in bytes) inserted into the shared cache.
* Set this to 0 to disable lookup sharing, defaults to 200MB (209715200 bytes).
* Do not change this value unless you are advised to do so by Splunk Support or
  a similar authority.
* Default: 209715200

input_errors_fatal = <boolean>
* This setting determines whether certain inputlookup or inputcsv command
  errors cause searches to fail or return a warning message.
* When set to true, this setting causes inputlookup and inputcsv errors to make
  an entire search fail. This happens even when the errors take place in a
  subsearch.
* When set to false, this setting returns a warning message for many
  inputlookup and inputcsv error conditions.
* Certain kinds of errors cause searches to fail no matter how this setting is
  set.
* Default: false

enable_splunkd_kv_lookup_indexing = <boolean>
* This setting determines whether KV Store lookup indexing is performed
  during bundle replication.
* When set to true, KVStore lookup indexing occurs on the main splunkd process,
  asynchronous to searches.
* When set to false, KV Store lookup indexing is triggered by the search
  process, potentially slowing search performance.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: false
```

[metadata]

```
bucket_localize_max_lookahead = <integer>
```

```
* This setting is only relevant when using remote storage.
* Specifies the maximum number of buckets the metadata command localizes
  for look-ahead purposes, in addition to the required bucket.
* Increasing this value can improve performance, at the cost of additional
  network/io/disk utilization.
* Valid values are 0-64. Any value larger than 64 will be set to 64. Other
  invalid values will be discarded and the default will be substituted.
* Default: 10

maxcount = <integer>
* The total number of metadata search results returned by the search head;
  after the 'maxcount' is reached, any additional metadata results received from
  the search peers will be ignored (not returned).
* A larger number incurs additional memory usage on the search head.
* Default: 100000

maxresultrows = <integer>
* The maximum number of results in a single chunk fetched by the metadata
  command
* A smaller value will require less memory on the search head in setups with
  large number of peers and many metadata results, though, setting this too
  small will decrease the search performance.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: 10000
```

[metric_alerts]

```
* This stanza provides global settings for metric alerts.

condition_evaluation_interval = <integer>
* This setting provides the alert condition evaluation interval in minutes.
* Must be a number from 1 to 60.
* Default: 1

search_delay = <time specifier>
* Specifies a delay time for metric alert searches. It can be passed to
  the 'allow_skew' setting for the search.
* The search delay allows the search to wait for the latest indexed data.
* For example,
**  15s+ means search delay is at least 15s after the minute determined by
    `condition_evaluation_interval`.
**  15s+30s means search delay is a random number from 15s to 45s after the minute.
* Only change this setting if you are experiencing significant data latency
  issues.
* Default: 15s+

search_ttl = <positive integer>p
* Specifies the default life span of metric alert search jobs.
* The time to live is defined as "at least until the Nth periodic run of the
  search, where the period is defined by the 'condition_evaluation_interval'
  setting".
* Default: 2p

honor_action = <boolean>
* Specifies whether the Splunk software should change the 'search_ttl' to the
  action ttl when an action is triggered.
* If there are multiple actions, the largest action ttl wins.
* Default: false
```

[msearch]

```
chunk_size = <unsigned integer>
* Specifies the default value of the 'chunk_size' argument for the 'msearch'
  command.
* When you run an 'msearch' search, the search head returns batches of metric
  time series until the search result set is complete.
```

```
* This argument sets a limit for the number of metric time series that the
  search head can gather in a single batch from a single MSIDX file. For
  example, when 'chunk_size=100', the search head can return 100 metric time
  series worth of metric data points in batches until the search is complete.
* Lower this value when 'msearch' searches use too much memory, or when they
  infrequently return events.
* Larger 'chunk_size' values can improve search performance, with the tradeoff
  of using more memory per search.
* Smaller 'chunk_size' values can reduce search performance, with the tradeoff
  of using less memory per search.
* This setting cannot be set lower than 10.
* Default: 1000

target_per_timeseries = <unsigned integer>
* Specifies the maximum number of metric data points to retrieve per tsidx file
  associated with an 'msearch' query.
* When set to 0, this setting returns all data points available within the given
  time range for each time series.
* Default: 5
```

[mvexpand]

```
* This stanza allows for fine tuning of mvexpand search command.

max_mem_usage_mb = <non-negative integer>
* Overrides the default value for "max_mem_usage_mb".
* Limits the amount of RAM, in megabytes (MB), a batch of events or results will
  use in the memory of a search process.
* See definition in the [default] stanza for "max_mem_usage_mb"
  for more details.
* Default: 500
```

[mvcombine]

```
* This stanza allows for fine tuning of mvcombine search command.

max_mem_usage_mb = <non-negative integer>
* Overrides the default value for "max_mem_usage_mb"
* Limits the amount of RAM, in megabytes (MB), a batch of events or results
  use in the memory of a search process.
* See definition in the [default] stanza for "max_mem_usage_mb"
  for more details.
* Default: 500
```

[outputlookup]

```
outputlookup_check_permission = <boolean>
* Specifies whether the outputlookup command should verify that users
  have write permissions to CSV lookup table files.
* outputlookup_check_permission is used in conjunction with the
  transforms.conf setting check_permission.
* The system only applies outputlookup_check_permission to .csv lookup
  configurations in transforms.conf that have check_permission=true.
* You can set lookup table file permissions in the .meta file for each lookup
  file, or through the Lookup Table Files page in Settings. By default, only
  users who have the admin or power role can write to a shared CSV lookup
  file.
* Default: false

create_context = [app|user|system]
* Specifies the context where the lookup file will be created for the first time.
  If there is a current application context and the following options,
  file will be created under:
  * app    : etc/apps/<app>/lookups
  * user   : etc/users/<user>/<app>/lookups
  Otherwise, file will be created under:
  * system : etc/system/local/lookups
* Default: app
```

[rare]

```
maxresultrows = <integer>
* Maximum number of result rows to create.
* If not specified, defaults to the value set for 'maxresultrows' in the
  [searchresults] stanza, which is 50000 by default.
* Default: 50000

maxvalues = <integer>
* Maximum number of distinct field vector values to keep track of.
* Default: 100000

maxvaluesize = <integer>
* Maximum length of a single value to consider.
* Default: 1000
```

[set]

```
maxresultrows = <integer>
* The maximum number of results the set command will use from each result
  set to compute the required set operation.
* Default: 50000
```

[sort]

```
maxfiles = <integer>
* Maximum files to open at once.  Multiple passes are made if the number of
  result chunks exceeds this threshold.
* Default: 64.
```

[spath]

```
extract_all = <boolean>
* Controls whether to respect automatic field extraction when spath is
  invoked manually.
* If set to "true", all fields are extracted regardless of settings.
* If set to "false", only fields used by later search commands are extracted.
* Default: true

extraction_cutoff = <integer>
* For 'extract-all' spath extraction mode, this setting applies extraction only
  to the first <integer> number of bytes. This setting applies both the auto kv
  extraction and the spath command, when explicitly extracting fields.
* Default: 5000
```

[stats|sistats]

```
approx_dc_threshold = <unsigned integer>
* Applies specifically to the estdc(x) function (approximate distinct count).
* When the Splunk software uses estdc(x) for commands such as stats, chart, and
  timechart, it does not use approximated results if the actual number of
  distinct values is below this threshold.
* To always use estimation, set 'approx_dc_threshold=1'.
* Note: When 'approx_dc_threshold=0' the Splunk software uses the default value
  for this setting (1000)
* Default: 1000

dc_digest_bits = <integer>
```

```
* The size of the digest used for approximating distinct count.
* The digest is configured to be 2 ^ 'dc_digest_bits' bytes in size.
* Must be >= 8 (128B) and <= 16 (64KB)
* Default: 10 (equivalent to 1KB)

default_partitions = <integer>
* Number of partitions to split incoming data into for parallel/multithreaded
  reduce.
* Default: 1

list_maxsize = <integer>
* Maximum number of list items to emit when using the list() function
  stats/sistats
* Default: 100

max_keymap_rows = <integer>
* Limits the number of result rows that the search head stores in the key map
  during the map phase of a 'stats' operation. The Splunk software looks up
  rows stored in the map and combines them greedily prior to final reduce.
* 'Stats' performance is nonlinear with respect to the the number of rows in
  the key map. Limiting the number of rows held can improve performance.
* Excess rows expunged from the key map remain in memory, subject to
  max_mem_usage_mb.
* A key map maps vectors of group-by keys (field values) to their associated
  rows. It is a feature of the 'stats' family of search commands.
* This setting applies particularly to high cardinality searches.
* This setting does not apply to 'streamstats' or 'eventstats' searches.
* Default: 1000000

maxmem_check_freq = <integer>
* How frequently, in number of rows, to check if the in-memory data
  structure size limit is exceeded, as specified by the
  'max_mem_usage_mb' setting.
* Default: 50000

maxresultrows = <integer>
* Maximum number of rows allowed in the process memory.
* When the search process exceeds "max_mem_usage_mb" and "maxresultrows",
  data is sent to the disk.
* If not specified, uses the value set for 'maxresultrows' in the
  [searchresults] stanza, which is 50000 by default.
* Default: 50000

max_stream_window = <integer>
* For the streamstats command, the maximum allow window size.
* Default: 10000

maxvalues = <integer>
* Maximum number of values for any field to keep track of.
* When set to "0": Specifies an unlimited number of values.
* Default: 0

maxvaluesize = <integer>
* Maximum length of a single value to consider.
* When set to "0": Specifies an unlimited number of values.
* Default: 0

max_valuemap_bytes = <integer>
* For the sistats command, the maximum encoded length of the valuemap,
  per result written out.
* If limit is exceeded, extra result rows are written out as needed.
* 0 = no limit per row
* Default: 100000

natural_sort_output = <boolean>
* Whether or not to perform a natural sort on the output of 'stats'
  if the output size is greater than or equal to the 'maxresultrows'
  setting.
* A natural sort means that numbers are sorted numerically and non-numbers
```

```
  are sorted lexicographically.
* Default: true

partitions_limit = <integer>
* Maximum number of partitions to split into that can be specified with the
  'partitions' option.
* When exceeded, the number of partitions is reduced to this limit.
* Default: 100

perc_method = nearest-rank|interpolated
* Which method to use for computing percentiles (and medians=50 percentile).
  * nearest-rank picks the number with 0-based rank R =
    floor((percentile/100)*count)
  * interpolated means given F = (percentile/100)*(count-1),
    pick ranks R1 = floor(F) and R2 = ceiling(F).
    Answer = (R2 * (F - R1)) + (R1 * (1 - (F - R1)))
* See wikipedia percentile entries on nearest rank and "alternative methods"
* Default: nearest-rank

perc_digest_type = rdigest|tdigest
* Which digest algorithm to use for computing percentiles
  ( and medians=50 percentile).
  * rdigest picks the rdigest_k, rdigest_maxnodes and perc_method properties.
  * tdigest picks the tdigest_k and tdigest_max_buffer_size properties.
* Default: tdigest

sparkline_maxsize = <integer>
* Maximum number of elements to emit for a sparkline
* Default: The value of the "list_maxsize" setting

sparkline_time_steps = <time-step-string>
* Specify a set of time steps in order of decreasing granularity. Use an
  integer and one of the following time units to indicate each step.
  * s = seconds
  * m = minutes
  * h = hours
  * d = days
  * month
* A time step from this list is selected based on the <sparkline_maxsize>
  setting.
* The lowest <sparkline_time_steps> value that does not exceed the maximum number
* of bins is used.
* Example:
  * If you have the following configurations:
  * <sparkline_time_steps> = 1s,5s,10s,30s,1m,5m,10m,30m,1h,1d,1month
  * <sparkline_maxsize> = 100
  * The timespan for 7 days of data is 604,800 seconds.
  * Span = 604,800/<sparkline_maxsize>.
  * If sparkline_maxsize = 100, then
    span = (604,800 / 100) = 60,480 sec == 1.68 hours.
  * The "1d" time step is used because it is the lowest value that does not
    exceed the maximum number of bins.
* Default: 1s,5s,10s,30s,1m,5m,10m,30m,1h,1d,1month


NOTE: The following are rdigest and tdigest settings.
      rdigest is a data structure used to compute approximate order statistics
      (such as median and percentiles) using sublinear space.

rdigest_k = <integer>
* rdigest compression factor
* Lower values mean more compression
* After compression, number of nodes guaranteed to be greater than or equal to
  11 times k.
* Must be greater than or equal to 2.
* Default: 100

rdigest_maxnodes = <integer>
* Maximum rdigest nodes before automatic compression is triggered.
* When set to "1": Specifies to automatically configure based on k value.
* Default: 1

tdigest_k = <integer>
* tdigest compression factor
* Higher values mean less compression, more mem usage, but better accuracy.
* Must be greater than or equal to 1.
* Default: 50

tdigest_max_buffer_size = <integer>
* Maximum number of elements before automatic reallocation of buffer storage
  is triggered.
* Smaller values result in less memory usage but is slower.
* Very small values (<100) are not recommended as they will be very slow.
* Larger values help performance up to a point after which it actually
  hurts performance.
* Recommended range is around 10tdigest_k to 30tdigest_k.
* Default: 1000

tmpfile_compression = <string>
* temporary file compression format, used for stats tmp files only
* "lz4" indicates use of the lz4 format
* "zstd" indicates use of the zstd format
* "none" indicates use of no compression
* Default: lz4

tmpfile_compression_level = <int>
* Temporary file compression format level.
* If tmpfile_compression is lz4 or zstd, this will indicate the compression level.
* For zstd higher numbers indicate higher speed, and lower compression ratios.
* For lz4 higher numbers indicate lower speed, and higher compression ratios.
* Default: 0

use_spill_thread = <boolean>
* Specifies whether 'stats' searches should use a separate thread when
  'max_mem_usage_mb' is exceeded. This enables these searches to continue
  processing input while they write to temporary files.
* When set to true, large 'stats' searches run faster, with the trade-off of
  using additional CPU resources. Recommended for systems with low utilization.
* Default: false

use_stats_v2 = [fixed-width | <boolean>]
* Specifies whether to use the v2 stats processor.
* When set to 'fixed-width', the Splunk software uses the v2 stats processor
  for operations that do not require the allocation of extra memory for new
  events that match certain combinations of group-by keys in memory. Operations
  that cause the Splunk software to use v1 stats processing include the
  'eventstats' and 'streamstats' commands, usage of wildcards, and stats
  functions such as list(), values(), and dc().
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: true
```

[top]

```
maxresultrows = <integer>
* Maximum number of result rows to create.
* If not specified, uses the value set for 'maxresultrows' in the
  [searchresults] stanza, which is 50000 by default.
* Default: 50000

maxvalues = <integer>
* Maximum number of distinct field vector values to keep track of.
* Default: 100000

maxvaluesize = <integer>
* Maximum length of a single value to consider.
* Default: 1000
```

[transactions]

```
maxopentxn = <integer>
* Specifies the maximum number of not yet closed transactions to keep in the
  open pool before starting to evict transactions.
* Default: 5000

maxopenevents = <integer>
* Specifies the maximum number of events (which are) part of open transactions
  before transaction eviction starts happening, using LRU policy.
* Default: 100000
```

[tscollect]

```
squashcase = <boolean>
* The default value of the 'squashcase' argument if not specified by the command
* Default: false

keepresults = <boolean>
* The default value of the 'keepresults' argument if not specified by the command
* Default: false

optimize_max_size_mb = <unsigned integer>
* The maximum size in megabytes of files to create with optimize
* Specify 0 for no limit (may create very large tsidx files)
* Default: 1024
```

[tstats]

```
allow_old_summaries = <boolean>
* Whether or not the 'tstats' command, when run on an accelerated datamodel,
  confirms that the datamodel search in each bucket's summary metadata is
  considered to be up to date with the current datamodel search.
* Only bucket summaries that are considered "up to date" are used to
  deliver results.
* This value is the default value of the 'allow_old_summaries' setting,
  if that argument is not specified in the command.
* When set to "false", 'tstats' always confirms that the datamodel
  search in each bucket's summary metadata is considered up to date with the
  current datamodel search.
* When set to "true", 'tstats' delivers results even from bucket summaries
  that are considered out of date with the current datamodel.
* Default: false

apply_search_filter = <boolean>
* Whether or not 'tstats' applies role-based search filters when users
  run the command on normal index data.
* If set to "true", 'tstats' applies role-based search filters.
* NOTE: Regardless of this setting value, 'tstats' never applies search
  filters to data collected with 'tscollect', or with datamodel acceleration.
* Default: true

bucket_localize_max_lookahead = <integer>
* This setting is only relevant when using remote storage.
* Specifies the maximum number of buckets the tstats command localizes for
  look-ahead purposes, in addition to the required bucket.
* Increasing this value can improve performance, at the cost of additional
  network/io/disk utilization.
* Valid values are 0-64. Any value larger than 64 will be set to 64. Other
  invalid values will be discarded and the default will be substituted.
* Default: 10

chunk_size = <unsigned integer>
* ADVANCED: The default value of 'chunk_size' arg if not specified by
```

```
  the command
* This argument controls how many events are retrieved at a time within a
  single TSIDX file when answering queries
* Consider lowering this value if tstats queries are using too much memory
  (cannot be set lower than 10000)
* Larger values will tend to cause more memory to be used (per search) and
  might have performance benefits.
* Smaller values will tend to reduce performance and might reduce memory used
  (per search).
* Altering this value without careful measurement is not advised.
* Default: 10000000

summariesonly = <boolean>
* Whether or not 'tstats' employs a mixed mode when running against an
  accelerated datamodel.
* This value is the default value for the 'summariesonly' setting, if that
  argument is not specified in the command.
* In mixed mode, 'tstats' falls back to search if it encounters missing
  tsidx data.
* If set to "true", 'tstats' overrides this mixed mode, and only generates
  results from available tsidx data, which might be incomplete.
* If set to "false", 'tstats' uses mixed mode, and falls back to search for
  tsidx data that is missing.
* Default: false

warn_on_missing_summaries = <boolean>
* ADVANCED: Only meant for debugging 'summariesonly=true' searches on
  accelerated datamodels.
* When set to "true", search will issue a warning for a tstats 'summariesonly=true'
  search for the following scenarios:
    a) If there is a non-hot bucket that has no corresponding datamodel
    acceleration summary whatsoever.
    b) If the bucket's summary does not match with the current datamodel
    acceleration search.
* Default: false

batch_search_max_pipeline = <integer>
* Controls the number of tstats/mstats search pipelines launched at the
  indexer during batch search.
* Increase the number of search pipelines to improve search performance, at
  the cost of a concurrent increase in thread and memory usage.
* This value applies only to searches that run on remote indexers.
* Default: 1
```

[mstats]

```
time_bin_limit = <unsigned integer>
* Applies only to mstats search jobs.
* Controls how many time bins can be allocated within a single TSIDX file when
  the search head processes mstats search jobs that group results by time (by
  using 'span', for example).
* When this setting is set to 0, there is no time bin limit for qualifying
  mstats search jobs. Removing the time bin limit can cause the Splunk platform
  to run out of memory when you run those jobs.
* Lower this value when your mstats search jobs are using too much memory per
  search.
* Raise this value if your mstats searches return errors when they have wide
  time ranges or their group-by spans are too small.
* The Splunk platform estimates the number of time bins a search requires by
  dividing its time range by its group-by span. If range/span >
  'time_bin_limit', it outputs an error. This could happen with a search with a
  time range of a year and a span of '1s', for example.
  * The search time range is determined through the 'earliest' and 'latest'
    values for the search.
  * Some types of searches, such as 'all time' searches, do not have 'earliest'
    and 'latest' values. In those cases the Splunk platform checks within each
    single TSIDX file to derive a time range for the search.
```

```
* Default: 1000000
```

[typeahead]

```
cache_ttl_sec = <integer>
* How long, in seconds, the typeahead cached results are valid.
* Default 300

fetch_multiplier = <integer>
* A multiplying factor that determines the number of terms to fetch from the
  index, fetch = fetch_multiplier x count.
* Default: 50

max_concurrent_per_user = <integer>
* The maximum number of concurrent typeahead searches per user. Once this
  maximum is reached only cached typeahead results might be available
* Default: 3

maxcount = <integer>
* Maximum number of typeahead results to find.
* Default: 1000

min_prefix_length = <integer>
* The minimum length of the string prefix after which to provide typeahead.
* Default: 1

use_cache = <boolean>
* Specifies whether the typeahead cache will be used if use_cache is not
  specified in the command line or endpoint.
* Default: true or 1
```

[typer]

```
maxlen = <integer>
* In eventtyping, pay attention to first <integer> characters of any attribute
  (such as _raw), including individual tokens. Can be overridden by supplying
  the typer operator with the argument maxlen (for example,
  "|typer maxlen=300").
* Default: 10000
```

[xyseries]

```
* This stanza allows for fine tuning of xyseries search command.

max_mem_usage_mb = <non-negative integer>
* Overrides the default value for 'max_mem_usage_mb'
* See definition in [default] max_mem_usage_mb for more details
```

常规设置

```
# This section contains the stanzas for a variety of general settings.
```

[authtokens]

```
expiration_time = <integer>
* Expiration time, in seconds, of auth tokens.
* Default: 3600 (60 minutes)
```

[auto_summarizer]

```
allow_event_summarization = <boolean>
* Whether auto summarization of searches whose remote part returns events
  rather than results will be allowed.
* Default: false

cache_timeout = <integer>
* The minimum amount of time, in seconds, to cache auto summary details and
  search hash codes.
* The cached entry expires randomly between 'cache_timeout' and
  2 * "cache_timeout" seconds.
* Default: 600 (10 minutes)

detailed_dashboard = <boolean>
* Turn on/off the display of both normalized and regular summaries in the
  Report Acceleration summary dashboard and details.
* Default: false

maintenance_period = <integer>
* The period of time, in seconds, that the auto summarization maintenance
  happens
* Default: 1800 (30 minutes)

max_run_stats = <integer>
* Maximum number of summarization run statistics to keep track and expose via
  REST.
* Default: 48

max_verify_buckets = <integer>
* When verifying buckets, stop after verifying this many buckets if no failures
  have been found
* 0 means never
* Default: 100

max_verify_bucket_time = <integer>
* Maximum time, in seconds, to spend verifying each bucket.
* Default: 15

max_verify_ratio = <number>
* Maximum fraction of data in each bucket to verify
* Default: 0.1 (10%)

max_verify_total_time = <integer>
* Maximum total time in seconds to spend doing verification, regardless if any
  buckets have failed or not
* When set to "0": Specifies no limit.
* Default: 0

normalized_summaries = <boolean>
* Turn on/off normalization of report acceleration summaries.
* Default: true

return_actions_with_normalized_ids = [yes|no|fromcontext]
* Report acceleration summaries are stored under a signature/hash which can be
  regular or normalized.
  * Normalization improves the re-use of pre-built summaries but is not
    supported before 5.0. This config will determine the default value of how
    normalization works (regular/normalized)
  * When set to "fromcontext": Specifies that the end points and summaries
    would be operating based on context.
* Normalization strategy can also be changed via admin/summarization REST calls
  with the "use_normalization"  parameter which can take the values
  "yes"/"no"/"fromcontext"
* Default: fromcontext

search_2_hash_cache_timeout = <integer>
* The amount of time, in seconds, to cache search hash codes
* Default: The value of the "cache_timeout" setting

shc_accurate_access_counts = <boolean>
* Only relevant if you are using search head clustering
* Turn on/off to make acceleration summary access counts accurate on the
  captain.
* by centralizing

verify_delete = <boolean>
* Should summaries that fail verification be automatically deleted?
* Default: false
```

[export]

```
add_offset = <boolean>
* Add an offset/row number to JSON streaming output
* Default: true

add_timestamp = <boolean>
* Add a epoch time timestamp to JSON streaming output that reflects the time
  the results were generated/retrieved
* Default: false
```

[extern]

```
perf_warn_limit = <integer>
* Warn when external scripted command is applied to more than this many
  events
* When set to "0": Specifies for no message (message is always INFO level)
* Default: 10000
```

[auth]

```
* Settings for managing auth features.

enable_install_apps = <boolean>
* Whether or not the "install_apps" capability is enabled for app installation,
  uninstallation, creation, and update.
* If set to "true", you must be assigned a role that holds the 'install_apps'
  capability to access the 'apps/local' REST endpoint for app installation,
  uninstallation, creation, and update.
* If set to "false", you must be assigned a role that holds either the
  'admin_all_objects' or 'edit_local_apps' capabilities for app installation,
  uninstallation, creation, and update.
* Default: false
```

[http_input]

```
max_number_of_tokens = <unsigned integer>
* The maximum number of tokens reported by logging input metrics.
* Default: 10000

max_content_length = <integer>
* The maximum length, in bytes, of HTTP request content that is
  accepted by the HTTP Event Collector server.
* Default: 838860800 (~ 800 MB)

max_number_of_ack_channel = <integer>
* The maximum number of ACK channels accepted by HTTP Event Collector
  server.
* Default: 1000000 (~ 1 million)

max_number_of_acked_requests_pending_query = <integer>
```

```
* The maximum number of ACKed requests pending query on HTTP Event
  Collector server.
* Default: 10000000 (~ 10 million)

max_number_of_acked_requests_pending_query_per_ack_channel = <integer>
* The maximum number of ACKed requested pending query per ACK channel on HTTP
  Event Collector server..
* Default: 1000000 (~ 1 million)

metrics_report_interval = <integer>
* The interval, in seconds, of logging input metrics report.
* Default: 60 (1 minute)
```

[indexpreview]

```
max_preview_bytes = <integer>
* Maximum number of bytes to read from each file during preview
* Default: 2000000 (2 MB)

max_results_perchunk = <integer>
* Maximum number of results to emit per call to preview data generator
* Default: 2500

soft_preview_queue_size = <integer>
* Loosely-applied maximum on number of preview data objects held in memory
* Default: 100
```

[inputproc]

```
file_tracking_db_threshold_mb = <integer>
* The size, in megabytes, at which point the file tracking
  database, otherwise known as the "fishbucket" or "btree", rolls over
  to a new file.
* The rollover process is as follows:
  * After the fishbucket reaches 'file_tracking_db_threshold_mb' megabytes
    in size, a new database file is created.
  * From this point forward, the processor writes new entries to the
    new database.
  * Initially, the processor attempts to read entries from the new database,
    but upon failure, falls back to the old database.
  * Successful reads from the old database are written to the new database.
* NOTE: During migration, if this setting doesn't exist, the initialization
  code in splunkd triggers an automatic migration step that reads in the
  current value for "maxDataSize" under the "_thefishbucket" stanza in
  indexes.conf and writes this value into etc/system/local/limits.conf.

learned_sourcetypes_limit = <0 or positive integer>
* Limits the number of entries added to the learned app for performance
  reasons.
* If nonzero, limits two properties of data added to the learned app by the
  file classifier. (Code specific to monitor:: stanzas that auto-determines
  sourcetypes from content.)
  * The number of sourcetypes added to the learned app's props.conf file will
    be limited to approximately this number.
  * The number of file-content fingerprints added to the learned app's
    sourcetypes.conf file will be limited to approximately this number.
* The tracking for uncompressed and compressed files is done separately, so in
  some cases this value may be exceeded.
* This limit is not the recommended solution for auto-identifying sourcetypes.
  The usual  best practices are to set sourcetypes in input stanzas, or
  alternatively to apply them based on filename pattern in props.conf
  [source::<pattern>] stanzas.
* Default: 1000

max_fd = <integer>
* Maximum number of file descriptors that a ingestion pipeline in Splunk
```

```
  will keep open, to capture any trailing data from files that are written
  to very slowly.
* Note that this limit will be applied per ingestion pipeline. For more
  information about multiple ingestion pipelines see parallelIngestionPipelines
  in the server.conf.spec file.
* With N parallel ingestion pipelines the maximum number of file descriptors
  that can be open across all of the ingestion pipelines will be N * max_fd.
* Default: 100

monitornohandle_max_heap_mb = <integer>
* The maximum amount of memory, in megabytes, used by the MonitorNoHandle
  modular input in user mode.
* The memory of this input grows in size when the data being produced
  by applications writing to monitored files comes in faster than the Splunk
  instance can accept it.
* When set to 0, the heap size (memory allocated in the modular input) can grow
  without limit.
* If this size is limited, and the limit is encountered, the input drops
  some data to stay within the limit.
* This setting is valid only on Windows machines.
* Default: 0

tailing_proc_speed = <integer>
* REMOVED.  This setting is no longer used.

monitornohandle_max_driver_mem_mb = <integer>
* The maximum amount of NonPaged memory, in megabytes, used by the kernel
  driver of the MonitorNoHandle modular input.
* The memory of this input grows in size when the data being produced
  by applications writing to monitored files comes in faster than the Splunk
  instance can accept it.
* When set to 0, the NonPaged memory size (memory allocated in the kernel
  driver of the modular input) can grow without limit.
* If this size is limited, and the limit is encountered, the input drops
  some data to stay within the limit.
* This setting is valid only on Windows machines.
* Default: 0

monitornohandle_max_driver_records = <integer>
* The maximum number of in-memory records that the kernel module for
  the MonitorNoHandle modular input stores.
* This setting controls memory growth by limiting the amount of memory
  that the MonitorNoHandle input kernel module uses.
* When 'monitornohandle_max_driver_mem_mb' is set to > 0, this
  setting is ignored.
* The 'monitornohandle_max_driver_mem_mb' and
  'monitornohandle_max_driver_records' settings are mutually exclusive.
* If the limit is encountered, the input drops some data
  to remain within the limit.
* Default: 500.

time_before_close = <integer>
* MOVED.  This setting is now configured per-input in inputs.conf.
* Specifying this setting in limits.conf is DEPRECATED, but overrides
  the setting for all inputs, for now.
```

[journal_compression]

```
threads = <integer>
* Specifies the maximum number of indexer threads which will be work on
  compressing hot bucket journal data.
* This setting does not typically need to be modified.
* Default: The number of CPU threads of the host machine
```

[kv]

```
avg_extractor_time = <integer>
* Maximum amount of CPU time, in milliseconds, that the average (over search
  results) execution time of a key-value pair extractor will be allowed to take
  before warning. Once the average becomes larger than this amount of time a
  warning will be issued
* Default: 500 (.5 seconds)

limit = <integer>
* The maximum number of fields that an automatic key-value field extraction
  (auto kv) can generate at search time.
* Increase this setting if you want to ensure that the field picker in the Splunk Web
  search page displays all fields.
* Set this value to 0 if you do not want to limit the number of fields
  that can be extracted at search time.
* Default: 100

indexed_kv_limit = <integer>
* The maximum number of fields that can be extracted at index time from a data source.
* This setting does not prevent a search from extracting indexed fields that
  the search needs and explicitly requests.
* The Splunk platform imposes this limit for each index bucket.
* Fields that can be extracted at index time include default fields, custom fields,
  and structured data header fields.
* The summary fields 'host', 'index', 'source', 'sourcetype', 'eventtype', 'linecount',
  'splunk_server', and 'splunk_server_group' do not count against this limit and are
  always returned.
* Increase this setting if, for example, you have indexed data with a large
  number of columns and want to ensure that the field picker in the Splunk Web search
  page displays all fields.
* This setting is different from the 'limit' setting in that it limits field
  extraction in different phases of data processing. Previously, the 'limit'
  setting handled both index-time and search-time field extraction limits, and
  to maintain backward compatibility, both settings work in concert.
* The Splunk platform always uses the higher value for either setting to enforce
  index-time field extraction limits.
  * For example, if you set 'indexed_kv_limit' to "500" and 'limit' to "200",
    then the platform limits indexed-time field extractions to 500 and
    search-time field extractions to 200.
  * If you set 'indexed_kv_limit' to "200" and 'limit' to "500", then the
    platform limits both index-time and search-time field extraction to 500.
* Set this value to 0 if you do not want to limit the number of fields
  that can be extracted at index time.
* Default: 200

maxchars = <integer>
* Truncate _raw to this size and then do auto KV.
* Default: 10240 characters

maxcols = <integer>
* When non-zero, the point at which kv should stop creating new fields.
* Default: 512

max_extractor_time = <integer>
* Maximum amount of CPU time, in milliseconds, that a key-value pair extractor
  will be allowed to take before warning. If the extractor exceeds this
  execution time on any event a warning will be issued
* Default: 1000 (1 second)
```

[kvstore]

```
max_accelerations_per_collection = <unsigned integer>
* The maximum number of accelerations that can be assigned to a single
  collection
* Valid values range from 0 to 50
* Default: 10

max_documents_per_batch_save = <unsigned integer>
```

```
* The maximum number of documents that can be saved in a single batch
* Default: 1000

max_fields_per_acceleration = <unsigned integer>
* The maximum number of fields that can be part of a compound acceleration
  (i.e. an acceleration with multiple keys)
* Valid values range from 0 to 50
* Default: 10

max_queries_per_batch = <unsigned integer>
* The maximum number of queries that can be run in a single batch
* Default: 1000

max_rows_in_memory_per_dump = <unsigned integer>
* The maximum number of rows in memory before flushing it to the CSV projection
  of KVStore collection.
* Default: 200

max_rows_per_query = <unsigned integer>
* The maximum number of rows that will be returned for a single query to
  a collection.
* If the query returns more rows than the specified value, then returned
  result set will contain the number of rows specified in this value.
* Default: 50000

max_size_per_batch_result_mb = <unsigned integer>
* The maximum size, in megabytes (MB), of the result set from a set of
  batched queries
* Default: 100

max_size_per_batch_save_mb = <unsigned integer>
* The maximum size, in megabytes (MB), of a batch save query.
* Default: 50

max_size_per_result_mb = <unsigned integer>
* The maximum size, in megabytes (MB), of the result that will be
  returned for a single query to a collection.
* Default: 50

max_threads_per_outputlookup = <unsigned integer>
* The maximum number of threads to use during outputlookup commands on KVStore
* If the value is 0 the thread count will be determined by CPU count
* Default: 1
```

[kvstore_migration]

```
periodic_timer_interval = <integer>
* The interval in seconds at which the status of KV Store migration is polled
  on each search head cluster member after the start of the migration.
* The minimum accepted value is 1.
* The maximum accepted value is 60.
* Default: 10

max_failed_status_unchanged_count = <integer>
* The maximum number of intervals (interval length being determined
  by the "periodic_timer_interval" setting) that a search head cluster member's
  status can remain in failed state during KV Store migration before retrying
  migration on the member. If the trial number has hit the max retry limit,
  then the member is marked as aborted.
* Once this limit is reached, the migration is aborted on the member.
* Default: 30
```

[input_channels]

```
max_inactive = <integer>
* The Maximum number of inactive input channel configurations to keep in cache.
* Each source/sourcetype/host combination requires an independent input
  channel, which contains all relevant settings for ingestion.
* When set to 'auto', the Splunk platform will tune this setting based on the
  physical RAM present in the server at startup.
* Increasing this number might help with low ingestion throughput when there
  are no blocked queues (i.e., no 'blocked=true' events for 'group=queue' in
  metrics.log), and splunkd is creating a very high number of new input
  channels (see the value of 'new_channels' in
  'group=map, name=pipelineinputchannel', also in metrics.log), usually in the
  order of thousands. However, this action is only effective when those input
  channels could have been reused: for example, the source, sourcetype, and
  host fields are not generated randomly and tend to be reused within the
  lifetime of cached channel entries.
* Default: auto

lowater_inactive = <integer>
* Size of the inactive input channel cache after which entries will be
  considered for recycling: having its memory reused for storing settings
  for a different input channel.
* When set to 'auto', the Splunk platform will tune this setting value based
  on the value of 'max_inactive'.
* Default: auto

inactive_eligibility_age_seconds = <integer>
* Time, in seconds, after which an inactive input channel will be removed from
  the cache to free up memory.
* Default: 330
```

[ldap]

```
allow_multiple_matching_users = <boolean>
* Whether or not Splunk Enterprise allows login when it finds multiple
  entries in LDAP with the same value for the 'username' attribute.
* When multiple entries are found, it chooses the first Distinguished Name
  (DN) lexicographically.
* Setting this to false is more secure as it does not allow any ambiguous
  login, but users with duplicate entries will be unable to login.
* Default: true

max_users_to_precache = <unsigned integer>
* The maximum number of users that are pre-cached from LDAP after
  reloading auth.
* Set this to 0 to turn off pre-caching.
```

[metrics]

```
interval = <integer>
* Number of seconds between logging splunkd metrics to metrics.log.
* Minimum of 10.
* Default: 30

maxseries = <integer>
* The number of series to include in the per_x_thruput reports in metrics.log.
* Default: 10
```

[metrics:tcpin_connections]

```
aggregate_metrics = <boolean>
* For each splunktcp connection from forwarder, splunk logs metrics information
  every metrics interval.
* When there are large number of forwarders connected to indexer, the amount of
  information logged can take lot of space in metrics.log. When set to true, it
  will aggregate information across each connection and report only once per
  metrics interval.
* Default: false
```

```
suppress_derived_info = <boolean>
* For each forwarder connection, _tcp_Bps, _tcp_KBps, _tcp_avg_thruput,
  _tcp_Kprocessed is logged in metrics.log.
* This can be derived from kb. When set to true, the above derived info will
  not be emitted.
* Default: false
```

[pdf]

```
max_rows_per_table = <unsigned integer>
* The maximum number of rows that will be rendered for a table within
  integrated PDF rendering.
* Default: 1000

render_endpoint_timeout = <unsigned integer>
* The number of seconds after which the pdfgen render endpoint will timeout if
  it has not yet finished rendering the PDF output.
* Default: 3600 (60 minutes)
```

[realtime]

```
# Default options for indexer support of real-time searches
# These can all be overridden for a single search via REST API arguments

alerting_period_ms = <integer>
* The time, in milliseconds, to wait between triggering alerts during a
  realtime search.
* This setting limits the frequency at which alerts are triggered during
  realtime search.
* A value of 0 means that alerts are triggered for every batch of events
  that are read. In dense realtime searches with expensive alerts, this
  can overwhelm the alerting system.
* Precedence: Searchhead
* Default: 0

blocking = <boolean>
* Whether or not the indexer should block if a queue is full.
* Default: false

default_backfill = <boolean>
* Whether or not windowed real-time searches should backfill events.
* Default: true

enforce_time_order = <boolean>
* Whether or not real-time searches should ensure that events are sorted in
  ascending time order.
* Splunk Web automatically reverses the order that it displays events for
  real-time searches. If set to "true", the latest events will be shown first.
* Default: true

indexfilter = <boolean>
* Whether or not the indexer should pre-filter events for efficiency.
* Default: 1 (true)

indexed_realtime_update_interval = <integer>
* When you run an indexed realtime search, the list of searchable buckets
  needs to be updated. If the Splunk software is installed on a cluster,
  the list of allowed primary buckets is refreshed. If not installed on
  a cluster, the list of buckets, including any new hot buckets are refreshed.
  This setting controls the interval for the refresh. The setting must be
  less than the "indexed_realtime_disk_sync_delay" setting. If your realtime
  buckets transition from new to warm in less time than the value specified
  for the "indexed_realtime_update_interval" setting, data will be skipped
  by the realtime search in a clustered environment.
* Precedence: Indexers
* Default: 30

indexed_realtime_cluster_update_interval = <integer>
* This setting is deprecated. Use the "indexed_realtime_update_interval"
  setting instead.
* While running an indexed realtime search on a cluster, the list of allowed
  primary buckets is updated. This controls the interval at which the list
  is updated. This value must be less than the
  'indexed_realtime_disk_sync_delay' setting. If your buckets transition from
  Brand New to warm in less than the interval time specified, indexed
  realtime will lose data in a clustered environment.
* Precedence: Indexers
* Default: 30

indexed_realtime_default_span = <integer>
* An indexed realtime search is made up of many component historical searches
  that by default will span this many seconds. If a component search is not
  completed in this many seconds the next historical search will span the extra
  seconds. To reduce the overhead of running an indexed realtime search you can
  change this span to delay longer before starting the next component
  historical search.
* Precedence: Indexers
* Default: 1

indexed_realtime_disk_sync_delay = <integer>
* The number of seconds to wait for disk flushes to finish when using
  indexed/continuous/pseudo realtime search, so that all data can be seen.
* After indexing there is a non-deterministic period where the files on disk,
  when opened by other programs, might not reflect the latest flush to disk,
  particularly when a system is under heavy load.
* Precedence: SearchHead overrides Indexers
* Default: 60

indexed_realtime_maximum_span = <integer>
* While running an indexed realtime search, if the component searches regularly
  take longer than 'indexed_realtime_default_span' seconds,
  then indexed realtime search can fall more than
  'indexed_realtime_disk_sync_delay' seconds behind realtime.
* Use this setting to set a limit after which search drops data to
  catch back up to the specified delay from realtime, and only
  search the default span of seconds.
* Precedence: API overrides SearchHead overrides Indexers
* Default: 0 (unlimited)

indexed_realtime_use_by_default = <boolean>
* Whether or not the indexedRealtime mode should be used by default.
* Precedence: SearchHead
* This is an app/user level configuration setting, and cannot be set as global.
* Default: false

local_connect_timeout = <integer>
* Connection timeout, in seconds, for an indexer's search process when
  connecting to that indexer's splunkd.
* Default: 5

local_receive_timeout = <integer>
* Receive timeout, in seconds, for an indexer's search process when
  connecting to that indexer's splunkd.
* Default: 5

local_send_timeout = <integer>
* Send timeout, in seconds, for an indexer's search process when connecting
  to that indexer's splunkd.
* Default: 5

max_blocking_secs = <integer>
* Maximum time, in seconds, to block if the queue is full (meaningless
  if blocking = false)
* 0 means no limit
* Default: 60

queue_size = <integer>
* Size of queue for each real-time search (must be >0).
* Default: 10000
```

[restapi]

```
maxresultrows = <integer>
* Maximum result rows to be returned by /events or /results getters from REST
  API.
* Default: 50000

jobscontentmaxcount = <integer>
* Maximum length of a property in the contents dictionary of an entry from
  /jobs getter from REST API
* Value of 0 disables truncation
* Default: 0

time_format_reject = <regular expression>
* HTTP parameters for time_format and output_time_format which match
  this regex will be rejected.
* The regex will be satisfied by a substring match anywhere in the parameter.
* Intended as defense-in-depth against XSS style attacks against browser users
  by crafting specially encoded URLS for them to access splunkd.
* If unset, all parameter strings will be accepted.
* To disable this check entirely, set the value to empty.
  * Example of disabling: time_format_reject =
* Default: [<>!] , which means that the less-than '<', greater-than '>', and
  exclamation point '!' are not allowed.

restprocessor_errors_fatal = <boolean>
* Determines whether to return a hard error for REST command usages that are
  invalid.
* An invalid REST command usage is a REST request that returns an HTTP status
  outside the range of [200, 300].
* Default: false
```

[reversedns]

```
rdnsMaxDutyCycle = <integer>
* Generate diagnostic WARN in splunkd.log if reverse dns lookups are taking
  more than this percent of time
* Range 0-100
* Default: 10
```

[sample]

```
maxsamples = <integer>
* Default: 10000

maxtotalsamples = <integer>
* Default: 100000
```

[scheduler]

```
action_execution_threads = <integer>
* Number of threads to use to execute alert actions, change this number if your
  alert actions take a long time to execute.
* This number is capped at 10.
* Default: 2

actions_queue_size = <integer>
```

```
* The number of alert notifications to queue before the scheduler starts
  blocking, set to 0 for infinite size.
* Default: 100

actions_queue_timeout = <integer>
* The maximum amount of time, in seconds, to block when the action queue size is
  full.
* Default: 30

alerts_expire_period = <integer>
* The amount of time, in seconds, between expired alert removal
* This period controls how frequently the alerts list is scanned, the only
  benefit from reducing this is better resolution in the number of alerts fired
  at the savedsearch level.
* Change not recommended.
* Default: 120

alerts_max_count = <integer>
* Maximum number of unexpired alerts information to keep for the alerts
  manager, when this number is reached Splunk will start discarding the oldest
  alerts.
* Default: 50000

alerts_max_history = <integer>[s|m|h|d]
* Maximum time to search in the past for previously triggered alerts.
* splunkd uses this property to populate the Activity -> Triggered Alerts
  page at startup.
* Values greater than the default may cause slowdown.
* Relevant units are: s, sec, second, secs, seconds, m, min, minute, mins,
  minutes, h, hr, hour, hrs, hours, d, day, days.
* Default: 7d

alerts_scoping = host|splunk_server|all
* Determines the scoping to use on the search to populate the triggered alerts
  page. Choosing splunk_server will result in the search query
  using splunk_server=local, host will result in the search query using
  host=<search-head-host-name>, and all will have no scoping added to the
  search query.
* Default: splunk_server

async_saved_search_fetch = <boolean>
* Enables a separate thread that will fetch scheduled or auto-summarized saved
  searches asynchronously.
* Do not change this setting unless instructed to do so by Splunk support.
* Default: false

async_saved_search_interval = <integer>
* The interval, in seconds, that scheduled or auto-summarized saved searches
  will be fetched asynchronously.
* Has no effect if async_saved_search_fetch is set to false.
* Default: 30

auto_summary_perc = <integer>
* The maximum number of concurrent searches to be allocated for auto
  summarization, as a percentage of the concurrent searches that the scheduler
  can run.
* Auto summary searches include:
  * Searches which generate the data for the Report Acceleration feature.
  * Searches which generate the data for Data Model acceleration.
* NOTE: user scheduled searches take precedence over auto summary searches.
* Default: 50

auto_summary_perc.<n> = <integer>
auto_summary_perc.<n>.when = <cron string>
* The same as auto_summary_perc but the value is applied only when the cron
  string matches the current time.  This allows 'auto_summary_perc' to have
  different values at different times of day, week, month, etc.
* There may be any number of non-negative <n> that progress from least specific
  to most specific with increasing <n>.
```

```
* The scheduler looks in reverse-<n> order looking for the first match.
* If either these settings aren't provided at all or no "when" matches the
  current time, the value falls back to the non-<n> value of 'auto_summary_perc'.

concurrency_message_throttle_time = <integer>[s|m|h|d]
* Amount of time controlling throttling between messages warning about scheduler
  concurrency limits.
* Relevant units are: s, sec, second, secs, seconds, m, min, minute, mins,
  minutes, h, hr, hour, hrs, hours, d, day, days.
* Default: 10m

introspection_lookback = <duration-specifier>
* The amount of time to "look back" when reporting introspection statistics.
* For example: what is the number of dispatched searches in the last 60 minutes?
* Use [<integer>]<unit> to specify a duration;
  a missing <integer> defaults to 1.
* Relevant units are: m, min, minute, mins, minutes, h, hr, hour, hrs, hours,
  d, day, days, w, week, weeks.
* For example: "5m" = 5 minutes, "1h" = 1 hour.
* Default: 1h

max_action_results = <integer>
* The maximum number of results to load when triggering an alert action.
* Default: 50000

max_continuous_scheduled_search_lookback = <duration-specifier>
* The maximum amount of time to run missed continuous scheduled searches for
  once Splunk Enterprise comes back up, in the event it was down.
* Use [<integer>]<unit> to specify a duration;
  a missing <integer> defaults to 1.
* Relevant units are: m, min, minute, mins, minutes, h, hr, hour, hrs, hours,
  d, day, days, w, week, weeks, mon, month, months.
* For example: "5m" = 5 minutes, "1h" = 1 hour.
* A value of 0 means no lookback.
* Default: 24h

max_lock_files = <integer>
* The number of most recent lock files to keep around.
* This setting only applies in search head pooling.

max_lock_file_ttl = <integer>
* Time, in seconds, that must pass before reaping a stale lock file.
* Only applies in search head pooling.

max_per_result_alerts = <integer>
* Maximum number of alerts to trigger for each saved search instance (or
  real-time results preview for RT alerts)
* Only applies in non-digest mode alerting. Use 0 to disable this limit
* Default: 500

max_per_result_alerts_time = <integer>
* Maximum amount of time, in seconds, to spend triggering alerts for each
  saved search instance (or real-time results preview for RT alerts)
* Only applies in non-digest mode alerting. Use 0 to disable this limit.
* Default: 300 (5 minutes)

max_searches_perc = <integer>
* The maximum number of searches the scheduler can run, as a percentage of the
  maximum number of concurrent searches, see [search] max_searches_per_cpu for
  how to set the system wide maximum number of searches.
* Default: 50

max_searches_perc.<n> = <integer>
max_searches_perc.<n>.when = <cron string>
* The same as max_searches_perc but the value is applied only when the cron
  string matches the current time.  This allows 'max_searches_perc' to have
  different values at different times of day, week, month, etc.
* There may be any number of non-negative <n> that progress from least specific
  to most specific with increasing <n>.
```

```
* The scheduler looks in reverse-<n> order looking for the first match.
* If either these settings aren't provided at all or no "when" matches the
  current time, the value falls back to the non-<n> value of 'max_searches_perc'.

persistence_period = <integer>
* The period, in seconds, between scheduler state persistence to disk. The
  scheduler currently persists the suppression and fired-unexpired alerts to
  disk.
* This is relevant only in search head pooling mode.
* Default: 30

persistance_period = <integer>
* DEPRECATED: Use the 'persistence_period' setting instead.

priority_runtime_factor = <double>
* The amount to scale the priority runtime adjustment by.
* Every search's priority is made higher (worse) by its typical running time.
  Since many searches run in fractions of a second and the priority is
  integral, adjusting by a raw runtime wouldn't change the result; therefore,
  it's scaled by this value.
* Default: 10

priority_skipped_factor = <double>
* The amount to scale the skipped adjustment by.
* A potential issue with the priority_runtime_factor is that now longer-running
  searches may get starved.  To balance this out, make a search's priority
  lower (better) the more times it's been skipped.  Eventually, this adjustment
  will outweigh any worse priority due to a long runtime. This value controls
  how quickly this happens.
* Default: 1

dispatch_retry_delay = <unsigned integer>
* The amount of time, in seconds, to delay retrying a scheduled search that
  failed to dispatch (usually due to hitting concurrency limits).
* Maximum value: 30
* Default: 0

saved_searches_disabled = <boolean>
* Whether saved search jobs are disabled by the scheduler.
* Default: false


scheduled_view_timeout = <integer>[s|m|h|d]
* The maximum amount of time that a scheduled view (pdf delivery) would be
  allowed to render
* Relevant units are: s, sec, second, secs, seconds, m, min, minute, mins,
  minutes, h, hr, hour, hrs, hours, d, day, days.
* Default: 60m

shc_role_quota_enforcement = <boolean>
* When this attribute is enabled, the search head cluster captain enforces
  user-role quotas for scheduled searches globally (cluster-wide).
* A given role can have (n *number_of_members) searches running cluster-wide,
  where n is the quota for that role as defined by srchJobsQuota and
  rtSrchJobsQuota on the captain and number_of_members include the members
  capable of running scheduled searches.
* Scheduled searches will therefore not have an enforcement of user role
  quota on a per-member basis.
* Role-based disk quota checks (srchDiskQuota in authorize.conf) can be
  enforced only on a per-member basis.
  These checks are skipped when shc_role_quota_enforcement is enabled.
* Quota information is conveyed from the members to the captain. Network delays
  can cause the quota calculation on the captain to vary from the actual values
  in the members and may cause search limit warnings. This should clear up as
  the information is synced.
* Default: false

shc_syswide_quota_enforcement = <boolean>
* When this is enabled, Maximum number of concurrent searches is enforced
```

```
  globally (cluster-wide) by the captain for scheduled searches.
  Concurrent searches include both scheduled searches and ad hoc searches.
* This is (n * number_of_members) where n is the max concurrent searches per
  node (see max_searches_per_cpu for a description of how this is computed) and
  number_of_members include members capable of running scheduled searches.
* Scheduled searches will therefore not have an enforcement of instance-wide
  concurrent search quota on a per-member basis.
* Note that this does not control the enforcement of the scheduler quota.
  For a search head cluster, that is defined as
  (max_searches_perc * number_of_members)
  and is always enforced globally on the captain.
* Quota information is conveyed from the members to the captain. Network delays
  can cause the quota calculation on the captain to vary from the actual values
  in the members and may cause search limit warnings. This should clear up as
  the information is synced.
* Default: false

shc_local_quota_check = <boolean>
* DEPRECATED. Local (per-member) quota check is enforced by default.
* To disable per-member quota checking, enable one of the cluster-wide quota
  checks (shc_role_quota_enforcement or shc_syswide_quota_enforcement).
* For example, setting 'shc_role_quota_enforcement=true' turns off local role
  quota enforcement for all nodes in the cluster and is enforced cluster-wide
  by the captain.

shp_dispatch_to_slave = <boolean>
* By default the scheduler should distribute jobs throughout the pool.
* Default: true

search_history_load_timeout = <duration-specifier>
* The maximum amount of time to defer running continuous scheduled searches
  while waiting for the KV Store to come up in order to load historical data.
  This is used to prevent gaps in continuous scheduled searches when splunkd
  was down.
* Use [<integer>]<unit> to specify a duration; a missing <integer> defaults to 1.
* Relevant units are: s, sec, second, secs, seconds, m, min, minute, mins,
  minutes.
* For example: "60s" = 60 seconds, "5m" = 5 minutes.
* Default: 2m

search_history_max_runtimes = <unsigned integer>
* The number of runtimes kept for each search.
* Used to calculate historical typical runtime during search prioritization.
* Default: 10
```

[search_metrics]

```
debug_metrics = <boolean>
* This indicates whether to output more detailed search metrics for
  debugging.
* This will do things like break out where the time was spent by peer, and might
  add additional deeper levels of metrics.
* This is NOT related to "metrics.log" but to the "Execution Costs" and
  "Performance" fields in the Search inspector, or the count_map in the
  info.csv file.
* Default: false
```

[show_source]

```
distributed = <boolean>
* Whether or not a distributed search is performed to get events from all
  servers and indexes.
* Turning this off results in better performance for show source, but events
  will only come from the initial server and index.
* NOTE: event signing and verification is not supported in distributed mode
* Default: true
```

```
distributed_search_limit = <unsigned integer>
* The maximum number of events that are requested when performing a search
  for distributed show source.
* As this is used for a larger search than the initial non-distributed show
  source, it is larger than max_count
* Splunk software rarely returns anywhere near this number of results,
  as excess results are pruned.
* The point is to ensure the distributed search captures the target event in an
  environment with many events.
* Default: 30000

max_count = <integer>
* Maximum number of events accessible by show_source.
* The show source command will fail when more than this many events are in the
  same second as the requested event.
* Default: 10000

max_timeafter = <timespan>
* Maximum time after requested event to show.
* Default: '1day' (86400 seconds)

max_timebefore = <timespan>
* Maximum time before requested event to show.
* Default: '1day' (86400 seconds)
```

[rex]

```
match_limit = <integer>
* Limits the amount of resources that are spent by PCRE
  when running patterns that will not match.
* Use this to set an upper bound on how many times PCRE calls an internal
  function, match(). If set too low, PCRE might fail to correctly match
  a pattern.
* Default: 100000

depth_limit = <integer>
* Limits the amount of resources that are spent by PCRE
  when running patterns that will not match.
* Use this to limit the depth of nested backtracking in an internal PCRE
  function, match(). If set too low, PCRE might fail to correctly match
  a pattern.
* Default: 1000
```

[slc]

```
maxclusters = <integer>
* Maximum number of clusters to create.
* Default: 10000.
```

[slow_peer_disconnect]

```
# This stanza contains settings for the heuristic that will detect and
# disconnect slow peers towards the end of a search that has returned a
# large volume of data.

batch_search_activation_fraction = <decimal>
* The fraction of peers that must have completed before disconnection begins.
* This is only applicable to batch search because the slow peers will
  not hold back the fast peers.
* Default: 0.9

bound_on_disconnect_threshold_as_fraction_of_mean = <decimal>
* The maximum value of the threshold data rate that is used to determine
  if a peer is slow.
```

```
* The actual threshold is computed dynamically at search time but never exceeds
  (100*maximum_threshold_as_fraction_of_mean)% on either side of the mean.
* Default: 0.2

disabled = <boolean>
* Whether or not this feature is enabled.
* Default: true

grace_period_before_disconnect = <decimal>
* How long, in seconds, when multiplied by life_time_of_collector, to wait
  while the heuristic claims that a peer is slow, before disconnecting the
  peer.
* If the heuristic consistently claims that the peer is slow for at least
  <grace_period_before_disconnect>*life_time_of_collector seconds, then the
  peer is disconnected.
* Default: 0.1

packets_per_data_point = <unsigned integer>
* Rate statistics will be sampled once every packets_per_data_point packets.
* Default: 500

sensitivity = <decimal>
* Sensitivity of the heuristic to newer values. For larger values of
  sensitivity the heuristic will give more weight to newer statistic.
* Default: 0.3

threshold_connection_life_time = <unsigned integer>
* All peers will be given an initial grace period of at least these many
  seconds before they are considered in the heuristic.
* Default: 60

threshold_data_volume = <unsigned integer>
* The volume of uncompressed data that must have accumulated, in
  kilobytes (KB), from a peer before it is considered in the heuristic.
* Default: 1024
```

[summarize]

```
bucket_refresh_interval = <integer>
* When poll_buckets_until_maxtime is enabled in a non-clustered
  environment, this is the minimum amount of time (in seconds)
  between bucket refreshes.
* Default: 30

bucket_refresh_interval_cluster = <integer>
* When poll_buckets_until_maxtime is enabled in a clustered
  environment, this is the minimum amount of time (in seconds)
  between bucket refreshes.
* Default: 120

hot_bucket_min_new_events = <integer>
* The minimum number of new events that need to be added to the hot bucket
  (since last summarization)  before a new summarization can take place.
  To disable hot bucket summarization set this value to a * large positive
  number.
* Default: 100000

indextime_lag = <unsigned integer>
* The amount of lag time, in seconds, to give indexing to ensure that
  it has synced any received events to disk.
* Effectively, the data that has been received in the past 'indextime_lag'
  seconds is NOT summarized.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: 90

max_hot_bucket_summarization_idle_time = <unsigned integer>
* Maximum amount of time, in seconds, a hot bucket can be idle. When the
```

```
  time exceeds the maximum, all of the events are summarized even if there
  are not enough events (determined by the hot_bucket_min_new_events
  attribute).
* Default: 900 (15 minutes)

max_replicated_hot_bucket_idle_time = <unsigned integer>
* The maximum amount of time, in seconds, that a replicated hot bucket
  can remain idle before 'indextime_lag' is no longer applied to it.
* This applies only to idle replicated hot buckets. When new events arrive,
  the default behavior of applying 'indextime_lag' resumes.
* Default: 150

max_summary_ratio = <decimal>
* A number in the [0-1] range that indicates the maximum ratio of
  summary data / bucket size at which point the summarization of that
  bucket, for the particular search, will be disabled.
* Set to 0 to disable.
* Default: 0

max_summary_size = <integer>
* Size of summary, in bytes, at which point we'll start applying the
  max_summary_ratio.
* Set to 0 to disable.
* Default: 0

max_time = <integer>
* The maximum amount of time, seconds, that a summary search process is
  allowed to run.
* Set to 0 to disable.
* Default: 0

poll_buckets_until_maxtime = <boolean>
* Only modify this setting when you are directed to do so by Support.
* Use the datamodels.conf setting 'acceleration.poll_buckets_until_maxtime'
  for individual data models that are sensitive to summarization latency delays.
* Default: false

sleep_seconds = <integer>
* The amount of time, in seconds, to sleep between polling the summarization
  complete status.
* Default: 5

stale_lock_seconds = <integer>
* The amount of time, in seconds, to have elapse since the mod time of
  a .lock file before summarization considers * that lock file stale
  and removes it.
* Default: 600

tscollect_queue_size = <unsigned integer>
* This setting sets the size (in bytes) of the internal producer-consumer
  queue. Accelerated data model summary creation searches use this queue to
  speed up the summarization task.
* Setting this to a non-zero value reduces the memory usage of the data model
  acceleration search process while accelerating large buckets of events.
* A value of 0 represents no bound on the queue size.
* CAUTION: Do not change this setting without consulting Splunk Support.
  Changing it may slow down the accelerated data model summary creation search.
* Default: 0
```

[system_checks]

```
insufficient_search_capabilities = enabled | disabled
* Enables/disables automatic daily logging of scheduled searches by users
  who have insufficient capabilities to run them as configured.
* Such searches are those that:
  + Have schedule_priority set to a value other than "default" but the
    owner does not have the edit_search_schedule_priority capability.
  + Have schedule_window set to a value other than "auto" but the owner does
    not have the edit_search_schedule_window capability.
* This check and any resulting logging occur on system startup and every 24
  hours thereafter.
* Default: enabled

installed_files_integrity = enabled | log_only | disabled
* Enables/disables automatic verification on every startup that all the
  files that were installed with the running Splunk version are still the
  files that should be present.
  * Effectively this finds cases where files were removed or changed that
    should not be removed or changed, whether by accident or intent.
  * The source of truth for the files that should be present is the manifest
    file in the $SPLUNK_HOME directory that comes with the release, so if
    this file is removed or altered, the check cannot work correctly.
  * Reading of all the files provided with the install has some I/O cost,
    though it is paid out over many seconds and should not be severe.
* When "enabled", detected problems will cause a message to be posted to
  the bulletin board (system UI status message).
* When "enabled" or "log_only", detected problems will cause details to be
  written out to the splunkd.log file.
* When "disabled", no check will be attempted or reported.
* Default: enabled

orphan_searches = enabled|disabled
* Enables/disables automatic UI message notifications to admins for
  scheduled saved searches with invalid owners.
  * Scheduled saved searches with invalid owners are considered "orphaned".
    They cannot be run because Splunk cannot determine the roles to use for
    the search context.
  * Typically, this situation occurs when a user creates scheduled searches
    then departs the organization or company, causing their account to be
    deactivated.
* Currently this check and any resulting notifications occur on system
  startup and every 24 hours thereafter.
* Default: enabled
```

[thruput]

```
maxKBps = <integer>
* The maximum speed, in kilobytes per second, that incoming data is
  processed through the thruput processor in the ingestion pipeline.
* To control the CPU load while indexing, use this setting to throttle
  the number of events this indexer processes to the rate (in
  kilobytes per second) that you specify.
* NOTE:
  * There is no guarantee that the thruput processor
    will always process less than the number of kilobytes per
    second that you specify with this setting. The status of
    earlier processing queues in the pipeline can cause
    temporary bursts of network activity that exceed what
    is configured in the setting.
  * The setting does not limit the amount of data that is
    written to the network from the tcpoutput processor, such
    as what happens when a universal forwarder sends data to
    an indexer.
  * The thruput processor applies the 'maxKBps' setting for each
    ingestion pipeline. If you configure multiple ingestion
    pipelines, the processor multiplies the 'maxKBps' value
    by the number of ingestion pipelines that you have
    configured.
  * For more information about multiple ingestion pipelines, see
    the 'parallelIngestionPipelines' setting in the
    server.conf.spec file.
* Default (Splunk Enterprise): 0 (unlimited)
* Default (Splunk Universal Forwarder): 256
```

[viewstates]

```
enable_reaper = <boolean>
* Controls whether the viewstate reaper runs.
* Default: true

reaper_freq = <integer>
* Controls how often, in seconds, the viewstate reaper runs.
* Default: 86400 (24 hours)

reaper_soft_warn_level = <integer>
* Controls what the reaper considers an acceptable number of viewstates.
* Default: 1000

ttl = <integer>
* Controls the age, in seconds, at which a viewstate is considered eligible
  for reaping.
* Default: 86400 (24 hours)
```

[scheduled_views]

```
# Scheduled views are hidden [saved searches / reports] that trigger
# PDF generation for a dashboard. When a user enables scheduled PDF delivery
# in the dashboard UI, scheduled views are created.
#
# The naming pattern for scheduled views is _ScheduledView__<view_name>,
# where <view_name> is the name of the corresponding dashboard.
#
# The scheduled views reaper, if enabled, runs periodically to look for
# scheduled views that have been orphaned. A scheduled view becomes orphaned
# when its corresponding dashboard has been deleted. The scheduled views reaper
# deletes these orphaned scheduled views. The reaper only deletes scheduled
# views if the scheduled views have not been disabled and their permissions
# have not been modified.

enable_reaper = <boolean>
* Controls whether the scheduled views reaper runs, as well as whether
* scheduled views are deleted when the dashboard they reference is deleted.
* Default: true

reaper_freq = <integer>
* Controls how often, in seconds, the scheduled views reaper runs.
* Default: 86400 (24 hours)
```

优化

```
# This section contains global and specific optimization settings
```

[search_optimization]

```
enabled = <boolean>
* Enables search optimizations
* Default: true
```

[search_optimization::search_expansion]

```
enabled = <boolean>
* Enables optimizer-based search expansion.
* This enables the optimizer to work on pre-expanded searches.
* Default: true
```

```
# NOTE: Do not edit the below configurations unless directed by support
```

[search_optimization::replace_append_with_union]

```
enabled = <boolean>
* Enables replace append with union command optimization
* Default: true
```

[search_optimization::merge_union]

```
enabled = <boolean>
* Merge consecutive unions
* Default: true
```

[search_optimization::pr_job_extractor]

```
enabled = <boolean>
* Enables a search language optimization that converts a search string with a
  'prjob' command into a search string with a 'redistribute' command. This lets
  you use parallel reduce search processing to shorten the search runtime for a
  set of supported SPL commands.
* This optimization cannot be used by Splunk platform implementations that are
  restricted to the single-threaded search execution method. For more
  information about search execution methods, see the description of the
  'phased_execution_mode' setting in this file.
* Default: true
```

[search_optimization::predicate_merge]

```
enabled = <boolean>
* Enables predicate merge optimization
* Default: true

inputlookup_merge = <boolean>
* Enables predicate merge optimization to merge predicates into inputlookup
* predicate_merge must be enabled for this optimization to be performed
* Default: true

merge_to_base_search = <boolean>
* Enable the predicate merge optimization to merge the predicates into the
  first search in the pipeline.
* Default: true

fields_black_list = <fields_list>
* A comma-separated list of fields that will not be merged into the first
  search in the pipeline.
* If a field contains sub-tokens as values, then the field should be added
  to fields_black_list
* No default.
```

[search_optimization::predicate_push]

```
enabled = <boolean>
* Enables predicate push optimization
* Default: true
```

[search_optimization::predicate_split]

```
enabled = <boolean>
```

```
* Enables predicate split optimization
* Default: true
```

[search_optimization::dfs_job_extractor]

```
enabled = <boolean>
* Enables Splunk software to identify portions of searches and send them to
  the DFS cluster for fast processing.
* Can only be used by Splunk platform implementations that have enabled Data
  Fabric Search (DFS) functionality.
* Default: true

commands = <Command List>
* A comma-separated list of search commands that are affected by DFS
  job extraction.
* Default: The full list of commands supported by DFS.

commands_add = <Command List>
* A comma-separated list of search commands to be added to the list of commands supported by DFS
  Note: This setting is always processed after the 'commands' setting.
* Default: None

commands_rm = <Command List>
* A comma-separated list of search commands to be removed from the list of commands supported by DFS
  Note: This setting is always processed after the 'commands' and 'commands_add' settings.
* Default: None
```

[search_optimization::projection_elimination]

```
enabled = <boolean>
* Enables projection elimination optimization
* Default: true

cmds_black_list = <Commands List>
* A comma-separated list of commands that are not affected by projection
  elimination optimization.
* No default.
```

[search_optimization::required_field_values]

```
enabled = <boolean>
* Enables required field value optimization
* Default: true

fields = <comma-separated-string>
* Provide a comma-separated-list of field names to optimize.
* Currently the only valid field names are eventtype and tag.
* Optimization of event type and tag field values applies to transforming
  searches. This optimization ensures that only the event types and
  tags necessary to process a search are loaded by the search processor.
* Only change this setting if you need to troubleshoot an issue.
* Default: eventtype, tag
```

[search_optimization::search_flip_normalization]

```
enabled = <boolean>
* Enables predicate flip normalization.
* This type of normalization takes 'where' command statements
  in which the value is placed before the field name and reverses
  them so that the field name comes first.
* Predicate flip normalization only works for numeric values and
  string values where the value is surrounded by quotes.
* Predicate flip normalization also prepares searches to take
```

```
  advantage of predicate merge optimization.
* Disable search_flip_normalization if you determine that it is
  causing slow search performance.
* Default: true
```

[search_optimization::reverse_calculated_fields]

```
enabled = <boolean>
* Enables reversing of calculated fields optimization.
* Default: true
```

[search_optimization::search_sort_normalization]

```
enabled = <boolean>
* Enables predicate sort normalization.
* This type of normalization applies lexicographical sorting logic
  to 'search' command expressions and 'where' command statements,
  so they are consistently ordered in the same way.
* Disable search_sort_normalization if you determine that it is
  causing slow search performance.
* Default: true
```

[search_optimization::eval_merge]

```
enabled = <boolean>
* Enables a search language optimization that combines two consecutive
  "eval" statements into one and can potentially improve search performance.
* There should be no side-effects to enabling this setting and need not
  be changed unless you are troubleshooting an issue with search results.
* Default: true
```

[search_optimization::replace_table_with_fields]

```
enabled = <boolean>
* Enables a search language optimization that replaces the table
  command with the fields command
  in reporting or stream reporting searches
* There should be no side-effects to enabling this setting and need not
  be changed unless you are troubleshooting an issue with search results.
* Default: true
```

[search_optimization::replace_stats_cmds_with_tstats]

```
enabled = <boolean>
* If you are not using summary indexing, enable this setting to improve
  performance for searches that perform statistical operations only on indexed
  fields.
* Do not enable this setting if you are dependent on summary indexes. When it
  is enabled, searches that perform stats operations on summary indexes and
  which only reference indexed fields will return incorrect results. This
  occurs because the 'tstats' command does not respect the fields created by
  summary indexing commands. If you are using summary indexing but still choose
  to enable this optimization globally, this optimization can be disabled on
  a per-search basis by appending
  '| noop search_optimization.replace_stats_cmds_with_tstats=f' to the search
  string.
* Default: false

detect_search_time_field_collisions = <boolean>
* Enables checking field collisions between fields.conf which indicates
  whether a field is indexed and props.conf which may contain fields which
  override those fields at search time.
```

```
* This enables logic to perform an additional search expansion before this
  optimizer can be applied so that we get correct results when this case occurs.
* Default: true
```

[search_optimization::replace_datamodel_stats_cmds_with_tstats]

```
enabled = <boolean>
* Enables a search language optimization that replaces stats commands with
  tstats commands in "| datamodel .. | stats" and "| from datamodel .. | stats"
  SPL strings.
* Default: true
```

[directives]

```
required_tags = enabled|disabled
* Enables the use of the required tags directive, which allows the search
  processor to load only the required tags from the conf system.
* Disable this setting only to troubleshoot issues with search results.
* Default: true

required_eventtypes = enabled|disabled
* Enables the use of the required eventtypes directive, which allows the search
  processor to load only the required event types from the conf system.
* Disable this setting only to troubleshoot issues with search results.
* Default: true

read_summary = enabled|disabled
* Enables the use of the read summary directive, which allows the search
  processor to leverage existing data model acceleration summary data when it
  performs event searches.
* Disable this setting only to troubleshoot issues with search results.
* Default: true
```

[parallelreduce]

```
maxReducersPerPhase = <positive integer>
* The maximum number of valid indexers that can be used as intermediate
  reducers in the reducing phase of a parallel reduce operation. Only healthy
  search peers are valid indexers.
* If you specify a number greater than 200 or an invalid value, parallel
  reduction does not take place. All reduction processing moves to the search
  head.
* Default: 20

defaultReducersPerPhase = <positive integer>
* Specifies the default number of valid indexers that are used as intermediate
  reducers in the reducing phase of a parallel reduce search job, if the number
  of indexers is not set in the search string by the 'prjob' or 'redistribute'
  commands.
* If 'winningRate' calculates that the size of the potential reducer pool is
  lower than 'defaultReducersPerPhase', the Splunk software uses the number of
  indexers determined by 'winningRate'.
* The value of this setting cannot exceed 'maxReducersPerPhase'.
* Default: 4

maxRunningPrdSearches = <unsigned integer>
* DEPRECATED. Use the 'maxPrdSearchesPerCpu' setting instead.

maxPrdSearchesPerCpu = <unsigned integer>
* The maximum number of parallel reduce searches that can run, per CPU core,
  on an indexer that has been configured as an intermediate reducer.
* If you specify 0, there is no limit. The indexer runs as many parallel
  reduce searches as the indexer hardware permits.
* Default: 1
```

```
reducers = <string>
* Use this setting to configure one or more valid indexers as dedicated
  intermediate reducers for parallel reduce search operations. Only healthy
  search peers are valid indexers.
* For <string>, specify the indexer host and port using the following format -
  host:port. Separate each host:port pair with a comma to specify a list of
  intermediate reducers.
* If the 'reducers' list includes one or more valid indexers, all of those
  indexers (and only these indexers) are used as intermediate reducers when you
  run a parallel reduce search. If the number of valid indexers in the
  'reducers' list exceeds 'maxReducersPerPhase', the Splunk software randomly
  selects the set of indexers that are used as intermediate reducers.
* If all of the indexers in the 'reducers' list are invalid, the search runs
  without parallel reduction. All reduce operations for the search are
  processed on the search head.
* If 'reducers' is empty or not configured, all valid indexers are potential
  intermediate reducer candidates. The Splunk software randomly selects valid
  indexers as intermediate reducers with limits determined by the 'winningRate'
  and 'maxReducersPerPhase' settings.
* Default: ""

winningRate = <positive integer>
* The percentage of valid indexers that can be selected from the search peers
  as intermediate reducers for a parallel reduce search operation.
* This setting is only respected when the 'reducers' setting is empty or not
  configured.
* If 100 is specified, the search head attempts to use all of the indexers.
* If 1 is specified, the search head attempts to use 1% of the indexers.
* The minimum number of indexers used as intermediate reducers is 1.
* The maximum number of indexers used as intermediate reducers is the value of
  'maxReducersPerPhase'.
* Default: 50

rdinPairingTimeout = <positive integer>
* The amount of time (in seconds) to wait so that indexers and intermediate
  indexers may get paired
* Note: Only change this setting unless instructed to do so by Splunk Support.
* Default: 300

autoAppliedPercentage = <non-negative integer>
* The percentage of search queries to be selected to run as prjob, should be
  in range of [0, 100].
* If 100 is specified, all search queries will be wrapped as 'prjob'; if 0 is
  specified, no search query will be wrapped.
* Default: 0

autoAppliedToAdhocSearches = <boolean>
* When set to true, the Splunk software uses parallel reduce processing to
  improve the performance of qualifying ad-hoc searches.
* This setting is ignored when '0' is specified for 'autoAppliedPercentage'.
* Default: false

maxPreviewMemUsageMb = <positive integer>
* Sets the maximum amount of memory usage (in MB) that parallel reduce search
  can use in its preview cache.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: 100

enablePreview = <boolean>
* When set to 'true', parallel reduce search jobs generate preview data,
  meaning that partial search results are returned as the search job runs.
* When set to 'false', parallel reduce search jobs do not generate preview data.
  They display only the final results of a parallel reduce search job when the
  search job completes.
* Default: true

disabledCommandList = <string>
* Specifies a list of commands that are not run for searches that undergo
  parallel reduce search processing.
  * This list is comma-separated, without spaces.
* For example, to disable the 'dedup' and 'sort' commands in parallel reduce
  searches, set 'disabledCommandList = dedup,sort'.
* Note: Do not change this setting unless instructed to do so by Splunk Support.
* Default: Not set
```

[rollup]

```
minSpanAllowed = <integer>
* Sets the minimum timespan for the scheduled searches that generate metric
  rollup summaries.
* Each rollup summary uses a scheduled search to provide its metric data point
  aggregations. The interval of the search matches the span defined for the
  rollup summary.
* However, when you run large numbers of scheduled searches with short
  intervals, you can encounter search concurrency problems, where some searches
  skip scheduled runs.
* To reduce the risk of search concurrency issues, this setting ensures that
  the the rollup summaries created for your have longer spans.
* Do not set below 60 seconds.
* Default: 300
```

[mcollect]

```
always_use_single_value_output = <boolean>
* When set to true, mcollect outputs metric data points that only have one
  measure per data point.
* When set to false, mcollect outputs metric data points that can have
  several measures per data point.
* When your Splunk platform instance is fully upgraded to Splunk 8.0.0, change
  this setting to 'false'.
* Default:true
```

数据结构搜索

[dfs]

```
* The settings in this stanza specify aspects of the Data Fabric Search
  (DFS) cluster.

dfc_control_port = <port>
* Sets the listening port for data fabric coordinator (DFC) processes. Enables
  communication between a DFC process and a corresponding search process (SP).
* The port number is internally auto-incremented by Splunk software when the
  default port is unavailable. If this happens, limits.conf is not updated with
  the selected port number.
* The maximum number of DFC control ports that can be used for data fabric
  search at any given time is set by dfc_num_slots.
* Default: 17000

dfc_num_slots = <integer>
* Sets the maximum number of data fabric coordinator (DFC) processes that can run
  concurrently on each search head. Each process uses a search head 'slot'.
* Default: 4

dfs_max_num_keepalives = <integer>
* Sets the maximum number of keepalive packets to run the DFS search.
* Default: 10

dfs_max_reduce_partition_size = <integer>
* Sets the maximum number of partition size to receive data to run the DFS search.
* Recommended setting for executor node with 5 Cores and 12GB memory: 150000.
* Default: 500000

dfs_max_search_result_size = <integer>
* Sets the maximum number of results which a DFS search returns.
* When this value is zero (0), a DFS search returns all the results.
* Default: 1000000

dfw_num_slots = <integer>
* This setting applies only when 'dfw_num_slots_enabled' is set to "true" or
  when search head clustering is enabled in your Splunk implementation.
  * If you have enabled search head clustering, this setting sets the maximum
    number of data fabric coordinator (DFC) processes that can run concurrently
    across the search head cluster.
  * If you have disabled search head clustering, the value of 'dfw_num_slots'
    is equal to 'dfc_num_slots'.
* When multiple deployments are utilizing the same DFS cluster, this setting
  can help resolve concurrent search issues.
* Default : 10

dfw_num_slots_enabled = <boolean>
* Set this to "true" to enable the use of 'dfw_num_slots'.
* Default: false

dfs_resource_awareness = <boolean>
* Available Spark resources are continuously monitored to provide admission control for
  data fabric searches.
* Default: true

dfs_post_proc_speedup = <boolean>
* The post processing on the indexers is sped up by parallelizing post processing
* Default: false

dfs_num_post_proc_speedup_threads = <integer>
* The number of threads dedicated to speed up post process on remote pipelines.
* Default: 1

dfs_post_proc_input_queue_size = <integer>
* The size of queue that holds the chunks that need to be post processed
* Default: 400

dfs_post_proc_output_queue_size = <integer>
* The size of queue that holds the post processed results that need to go through rest of the pipeline
* Default: 400

dfs_estimation_time = <integer>
* The amount of time (in seconds) prior to a Data Fabric Search getting scheduled that the
  event count estimation is calculated.
* Default: 300

dfw_receiving_data_port = <port>
* Sets the listening port for data fabric worker (DFW) nodes. Receives
  redistributed data from Splunk indexers.
* The port number is internally auto-incremented by Splunk software when the
  default port is unavailable. If this happens, limits.conf is not updated with
  the selected port number.
* Default: 17500

dfw_receiving_data_port_count = <integer>
* Maximum number of ports that Splunk software checks for availability, starting from
  the default port set in the parameter 'dfw_receiving_data_port'.
* If the 'dfw_receiving_data_port_count' is set to 0, Splunk software checks for any
  available port without any upper limit.
* Default: 0

dfs_remote_search_timeout = <integer>
* The amount of time (in seconds) to wait because the search run on the
  DFS worker has not received the new results from any of the indexers.
* Default: 600
```

```
dfs_max_remote_pipeline = <integer>
* Controls the number of search pipelines launched at the indexer during a DFS search.
* Increasing the number of search pipelines typically helps improve search performance,
  but requires additional thread and memory usage.
* Depending on data volume and cardinality, modifying this setting
  may lead to slower searches or unread records.
* Default: 12

dfs_meta_phase_exec_timeout = <integer>
* The amount of time, in seconds, to wait for various meta phase processes to complete
  during a federated search.
* Default: 300

dfs_enable_parallel_serializer = <boolean>
* Enable the DFS parallel serializer to dispatch data more efficiently from the
  indexers to the DFS executors.
* The DFS parallel serializer can support multi-threaded processing to dispatch data,
  which might increase CPU and memory usage but improves performance as opposed to
  the legacy DFS search.
* Default: true

dfs_num_of_remote_serializer_pipeline = <integer>
* Sets the number of DFS remote serializer pipelines.
* DFS serializer pipelines transmit intermediate search results from indexers to
  DFS executors.
* Modifying this setting can lead to slower searches, depending on data volume,
  cardinality, and CPU numbers.
* If not set, DFS uses only one serializer pipeline.
* Default: 1

dfs_remote_io_kickout_period = <positive integer>
* The maximum amount of time(in milliseconds) to wait for next I/O write.
* Decreasing the time period typically increases the I/O rate of sending
  results from indexers to executors, but at the cost of extra CPU cycles.
* Max period is 1000 milliseconds, min period is 5 milliseconds.
* Default: 20

enable_dfs_search_feedback = <boolean>
* This setting can enable dfs search feedback at the end of a search.
* Default: true

enable_dfs_search_fallback = <boolean>
* This setting can enable search engine selection; Allow DFS searches
  to fallback to legacy Splunk Enterprise search.
* Default: false

dfs_eventcount_limit = <integer>
* The setting sets the event count boundary for running search via DFS;
* Feedback regarding DFS candidacy is provided based on this event count limit.
* Queries that exceed this event count and contain commands that are dfs compatible
  will trigger a notification via warning message
* Default: 20000000
```

[segmenter]

```
use_segmenter_v2 = <bool>
* When set to true, this setting causes certain tokenization operations to use
  SSE (Streaming SIMD Extensions) instructions. This improves overall search
  performance.
* This setting affects only those CPUs that support SSE4.2.
* NOTE: Do not change this setting unless instructed to do so by Splunk Support.
* Default: true
```

必填字段优化

[search_optimization::set_required_fields]

```
* The settings in this stanza affect how the search processors handle required
  field optimization.
* Required field optimization prevents specified but unused fields from being
  extracted or otherwise created during a search. This can improve search
  performance.

stats = <boolean>
* This setting determines whether the stats processor uses the required field
  optimization methods of Stats V2, or if it falls back to the older, less
  optimized version of required field optimization that was used prior to Stats
  v2.
* This setting only applies when 'use_stats_v2' is set to 'true' or
  'fixed-width' in 'limits.conf'
  * When Stats v2 is enabled and this setting is set to 'true', the stats
    processor uses the Stats v2 version of required field optimization.
  * When Stats v2 is enabled and this setting is set to 'false' the stats
    processor falls back to the older version of required field optimization.
* Do not change this setting unless instructed to do so by Splunk support.
* Default: false
```

limits.conf.example

```
#   Version 8.2.0
# CAUTION: Do not alter the settings in limits.conf unless you know what you are doing.
# Improperly configured limits may result in splunkd crashes and/or memory overuse.


[searchresults]
maxresultrows = 50000
# maximum number of times to try in the atomic write operation (1 = no retries)
tocsv_maxretry = 5
# retry period is 1/2 second (500 milliseconds)
tocsv_retryperiod_ms = 500

[subsearch]
# maximum number of results to return from a subsearch
maxout = 100
# maximum number of seconds to run a subsearch before finalizing
maxtime = 10
# time to cache a given subsearch's results
ttl = 300

[anomalousvalue]
maxresultrows = 50000
# maximum number of distinct values for a field
maxvalues = 100000
# maximum size in bytes of any single value (truncated to this size if larger)
maxvaluesize = 1000

[associate]
maxfields = 10000
maxvalues = 10000
maxvaluesize = 1000

# for the contingency, ctable, and counttable commands
[ctable]
maxvalues = 1000

[correlate]
maxfields = 1000
```

```
# for bin/bucket/discretize
[discretize]
maxbins = 50000
# if maxbins not specified or = 0, defaults to searchresults::maxresultrows

[inputcsv]
# maximum number of retries for creating a tmp directory (with random name in
# SPLUNK_HOME/var/run/splunk)
mkdir_max_retries = 100

[kmeans]
maxdatapoints = 100000000

[kv]
# when non-zero, the point at which kv should stop creating new columns
maxcols = 512

[rare]
maxresultrows = 50000
# maximum distinct value vectors to keep track of
maxvalues = 100000
maxvaluesize = 1000

[restapi]
# maximum result rows to be returned by /events or /results getters from REST
# API
maxresultrows = 50000

[search]
# how long searches should be stored on disk once completed
ttl = 86400

# the approximate maximum number of timeline buckets to maintain
status_buckets = 300

# the last accessible event in a call that takes a base and bounds
max_count = 10000

# the minimum length of a prefix before a * to ask the index about
min_prefix_len = 1

# the length of time to persist search cache entries (in seconds)
cache_ttl = 300

# By default, we will not retry searches in the event of indexer
# failures with indexer clustering enabled.
# Hence, the default value for search_retry here is false.
search_retry = false

# Timeout value for checking search marker files like hotbucketmarker or backfill
# marker.
check_search_marker_done_interval = 60

# Time interval of sleeping between subsequent search marker files checks.
check_search_marker_sleep_interval = 1


# If number of cpu's in your machine is 14 then total system wide number of
# concurrent searches this machine can handle is 20.
# which is base_max_searches + max_searches_per_cpu x num_cpus = 6 + 14 x 1 = 20
base_max_searches = 6
max_searches_per_cpu = 1


[scheduler]

# Percent of total concurrent searches that will be used by scheduler is
# total concurrency x max_searches_perc = 20 x 60% = 12 scheduled searches
# User default value (needed only if different from system/default value) when
# no max_searches_perc.<n>.when (if any) below matches.
max_searches_perc = 60

# Increase the value between midnight-5AM.
max_searches_perc.0 = 75
max_searches_perc.0.when = * 0-5 * * *

# More specifically, increase it even more on weekends.
max_searches_perc.1 = 85
max_searches_perc.1.when = * 0-5 * * 0,6

# Maximum number of concurrent searches is enforced cluster-wide by the
# captain for scheduled searches. For a 3 node SHC total concurrent
# searches = 3 x 20 = 60. The total searches (adhoc + scheduled) = 60, then
# no more scheduled searches can start until some slots are free.
shc_syswide_quota_enforcement = true

[slc]
# maximum number of clusters to create
maxclusters = 10000

[findkeywords]
#events to use in findkeywords command (and patterns UI)
maxevents = 50000

[stats]
maxresultrows = 50000
maxvalues = 10000
maxvaluesize = 1000

[top]
maxresultrows = 50000
# maximum distinct value vectors to keep track of
maxvalues = 100000
maxvaluesize = 1000

[search_optimization]
enabled = true

[search_optimization::predicate_split]
enabled = true

[search_optimization::predicate_push]
enabled = true

[search_optimization::predicate_merge]
enabled = true
inputlookup_merge = true
merge_to_base_search = true

[search_optimization::projection_elimination]
enabled = true
cmds_black_list = eval, rename

[search_optimization::search_flip_normalization]
enabled = true

[search_optimization::reverse_calculated_fields]
enabled = true

[search_optimization::search_sort_normalization]
enabled = true

[search_optimization::replace_table_with_fields]
enabled = true

[search_optimization::replace_stats_cmds_with_tstats]
enabled = false
```

```
detect_search_time_field_collisions = true

[search_optimization::replace_datamodel_stats_cmds_with_tstats]
enabled = true

[search_optimization::dfs_job_extractor]
enabled = true

[dfs]
dfc_control_port = 17000
dfc_num_slots = 4
dfs_max_num_keepalives = 10
dfs_max_reduce_partition_size = 150000
dfs_max_search_result_size = 1000000
dfw_num_slots = 10
dfw_num_slots_enabled = true
dfw_receiving_data_port = 17500
dfs_max_num_keepalives = 10
dfw_receiving_data_port_count = 0
```

literals.conf

以下为 `literals.conf` 的规范和示例文件。

literals.conf.spec

```
#   Version 8.2.0
#
# This file and all forms of literals.conf are now deprecated.
# Instead, use the messages.conf file which is documented
# at "Customize Splunk Web messages" in the Splunk documentation.
```

literals.conf.example

```
# Version 8.2.0
#
# This file and all forms of literals.conf are now deprecated.
# Instead, use the messages.conf file which is documented
# at "Customize Splunk Web messages" in the Splunk documentation.
```

macros.conf

以下为 `macros.conf` 的规范和示例文件。

macros.conf.spec

```
# Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use for
# for search language macros.
#
# There is a macros.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name macros.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see macros.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[<STANZA_NAME>]

```
* Each stanza represents a search macro that can be referenced in any search.
* The stanza name is the name of the macro if the macro takes no arguments.
  Otherwise, the stanza name is the macro name appended with "(<numargs>)",
  where <numargs> is the number of arguments that this macro takes.
* Macros can be overloaded, which means they can have the same name but a
  different number of arguments. If you have these stanzas - [foobar], [foobar(1)],
  [foobar(2)], and so forth - they are not the same macro.
* You can specify settings with a macro, which are described below.
  The settings are:
  * A set of macro arguments (args)
  * A definition string with argument substitutions
  * A validation string, with or without an error message
  * A setting that identifies if the defintion is an eval expression
  * A description for the macro
* Macros can be used in the search language by enclosing the macro name and any
  argument list in backtick marks. For example:`foobar(arg1,arg2)` or `footer`.
* The Splunk platform does not expand macros when they are inside quoted values, for
  example: "foo`bar`baz"

args = <string>,<string>,...
* A comma-separated list of argument names.
* Argument names can only contain alphanumeric characters, underscores ( _ ), and
  hyphens ( - ).
* If the stanza name indicates that this macro takes no arguments, this
  setting is ignored.
* This list cannot contain any repeated elements.

definition = <string>
* The string that the macro will expand to, with the argument substitutions
  made. The exception is when "iseval = true", see below.
* Arguments to be substituted must begin and end with a dollar sign ($). For example:
  "The last part of this string will be replaced by the value of argument foo $foo$".
* The Splunk platform replaces the $<arg>$ pattern globally in the string, even
  inside quotation marks.

validation = <string>
* A validation string that is an 'eval' expression.  This expression must
  evaluate to a Boolean or a string.
* Use this setting to verify that the macro's argument values are acceptable.
* If the validation expression is Boolean, validation succeeds when it returns
  "true". If it returns "false" or is NULL, validation fails and the Splunk platform
  returns the error message defined by the 'errormsg' setting.
* If the validation expression is not Boolean, the Splunk platform expects it to
  return a string or NULL. If it returns NULL, validation is considered a success.
  Otherwise, the string returned is the error message.

errormsg = <string>
* The error message displayed if the 'validation' setting is a Boolean expression and
  the expression does not evaluate to "true".

iseval = true|false
* If set to "true", the 'definition' setting is expected to be an eval expression that
  returns a string representing the expansion of this macro.
```

```
* Default: false.

description = <string>
* OPTIONAL. A simple description of what the macro does.
```

macros.conf.example

```
#   Version 8.2.0
#
# Example macros.conf
#

# macro foobar that takes no arguments can be invoked via `foobar`
[foobar]
# the defintion of a macro can invoke another macro.  nesting can be indefinite
# and cycles will be detected and result in an error
definition = `foobar(foo=defaultfoo)`


# macro foobar that takes one argument, invoked via `foobar(someval)`
[foobar(1)]
args = foo
# note this is definition will include the leading and trailing quotes, i.e.
# something `foobar(someval)`
# would expand to
# something "foo = someval"
definition = "foo = $foo$"

# macro that takes two arguments
# note that macro arguments can be named so this particular macro could be
# invoked equivalently as `foobar(1,2)` `foobar(foo=1,bar=2)` or
# `foobar(bar=2,foo=1)`
[foobar(2)]
args = foo, bar
definition = "foo = $foo$, bar = $bar$"

# macro that takes one argument that does validation
[foovalid(1)]
args = foo
definition = "foovalid = $foo$"
# the validation eval function takes any even number of arguments (>=2) where
# the first argument is a boolean expression, the 2nd a string, the third
# boolean, 4th a string, etc etc etc
validation = validate(foo>15,"foo must be greater than 15",foo<=100,"foo must be <= 100")

# macro showing simple boolean validation, where if foo > bar is not true,
# errormsg is displayed
[foovalid(2)]
args = foo, bar
definition = "foo = $foo$ and bar = $bar$"
validation = foo > bar
errormsg = foo must be greater than bar

# example of an eval-based definition.  For example in this case
# `fooeval(10,20)` would get replaced by 10 + 20
[fooeval(2)]
args = foo, bar
definition = if (bar > 0, "$foo$ + $bar$", "$foo$ - $bar$")
iseval = true
```

messages.conf

以下为 messages.conf 的规范和示例文件。

messages.conf.spec

```
#   Version 8.2.0
#
# This file contains attribute/value pairs for configuring externalized strings
# in messages.conf.
#
# There is a messages.conf in $SPLUNK_HOME/etc/system/default/.  To set custom
# configurations, place a messages.conf in $SPLUNK_HOME/etc/system/local/. You
# must restart the instance to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# For the full list of all messages that can be overridden, check out
# $SPLUNK_HOME/etc/system/default/messages.conf
#
# The full name of a message resource is component_key + ':' + message_key.
# After a descriptive message key, append two underscores, and then use the
# letters after the % in printf style formatting, surrounded by underscores.
#
# For example, assume the following message resource is defined:
#
#   [COMPONENT:MSG_KEY__D_LU_S]
#   message = FunctionX returned %d, expected %lu.
#   action  = See %s for details.
#
# The message key expects 3 printf-style arguments: %d, %lu, %s. These arguments
# can be in either the message or action fields but must appear in the same order.
#
# In addition to the printf style arguments above, some custom UI patterns are
# allowed in the message and action fields. These patterns are rendered by
# the UI before displaying the text.
#
# For example, a message can link to a specific Splunk Web page using this pattern:
#
#   [COMPONENT:MSG_LINK__S]
#   message = License key '%s' is invalid.
#   action  = See [[/manager/system/licensing|Licensing]] for details.
#
# Another custom formatting option is for date/time arguments. If the argument
# should be rendered in local time and formatted to a specific language,
# provide the unix timestamp and prefix the printf style argument with "$t".
# This indicates that the argument is a timestamp (not a number) and
# should be formatted into a date/time string.
#
# The language and timezone used to render the timestamp is determined during
# render time given the current user viewing the message. It is not required to
# provide these details here.
#
# For example, assume the following message resource is defined:
#
#   [COMPONENT:TIME_BASED_MSG__LD]
#   message = Component exception @ $t%ld.
#   action  = See splunkd.log for details.
#
# The first argument is prefixed with "$t", and therefore will be treated as a
# unix timestamp. It will be formatted as a date/time string.
#
# For these and other examples, check out
# $SPLUNK_HOME/etc/system/README/messages.conf.example
#


############################################################################
# Component
############################################################################
```

[<component>]

```
name = <string>
* The human-readable name used to prefix all messages under this component.
* Required.
* No default.

############################################################################
# Message
############################################################################
```

[<component>:<key>]

```
message = <string>
* String describing what and why something happened.
* Required.

message_alternate = <string>
* An alternative static string for this message.
* Any arguments are ignored.
* Default: empty string

action = <string>
* A string that describes the suggested next step to take in reaction
  to the message.
* Default: empty string

severity = critical|error|warn|info|debug
* The severity of the message.
* Default: warn

capabilities = <comma-separated list>
* A comma-separated list of the capabilities required to view the message.
* Default: empty string

roles = <comma-separated list>
* A comma-separated list of the roles required to view the message.
* If a user belongs to any of these roles, the user will see the message.
* If a role scope is specified with this setting, it takes precedence over the
  "capabilities" setting, which is ignored for the message.
* This setting should be manually configured with any system- or user-created
  role.
* Default (Splunk Enterprise): not set

help = <string>
* The location string to link users to specific documentation.
* No default.

target = [auto|ui|log|ui,log|none]
* Sets the message display target.
  * "auto" means the message display target is automatically determined by
    context.
  * "ui" messages are displayed in Splunk Web and can be passed on from
    search peers to search heads in a distributed search environment.
  * "log" messages are displayed only in the log files for the instance under
    the BulletinBoard component, with log levels that respect their message
    severity. For example, messages with severity "info" are displayed as INFO
    log entries.
  * "ui,log" combines the functions of the "ui" and "log" options.
  * "none" completely hides the message. (Please consider using "log" and
    reducing severity instead. Using "none" might impact diagnosability.)
* Default: auto
```

messages.conf.example

```
#   Version 8.2.0
#
# This file contains an example messages.conf of attribute/value pairs for
# configuring externalized strings.
#
# There is a messages.conf in $SPLUNK_HOME/etc/system/default/.  To set custom
# configurations, place a messages.conf in $SPLUNK_HOME/etc/system/local/. You
# must restart the instance to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# For the full list of all literals that can be overridden, check out
# $SPLUNK_HOME/etc/system/default/messages.conf


[DISK_MON]
name = Disk Monitor

[DISK_MON:INSUFFICIENT_DISK_SPACE_ERROR__S_S_LLU]
message      = Cannot write data to index path '%s' because you are low on disk space on partition '%s'. Indexing has been
paused.
action       = Free disk space above %lluMB to resume indexing.
severity     = warn
capabilities = indexes_edit
help         = learnmore.indexer.setlimits


[LM_LICENSE]
name = License Manager

[LM_LICENSE:EXPIRED_STATUS__LD]
message      = Your license has expired as of $t%ld.
action       = $CONTACT_SPLUNK_SALES_TEXT$
capabilities = license_edit

[LM_LICENSE:EXPIRING_STATUS__LD]
message      = Your license will soon expire on $t%ld.
action       = $CONTACT_SPLUNK_SALES_TEXT$
capabilities = license_edit

[LM_LICENSE:INDEXING_LIMIT_EXCEEDED]
message      = Daily indexing volume limit exceeded today.
action       = See [[/manager/search/licenseusage|License Manager]] for details.
severity     = warn
capabilities = license_view_warnings
help         = learnmore.license.features

[LM_LICENSE:MASTER_CONNECTION_ERROR__S_LD_LD]
message      = Failed to contact license master: reason='%s', first failure time=%ld ($t%ld).
severity     = warn
capabilities = license_edit
help         = learnmore.license.features

[LM_LICENSE:SLAVE_WARNING__LD_S]
message      = License warning issued within past 24 hours: $t%ld.
action       = Please refer to the License Usage Report view on license master '%s' to find out more.
severity     = warn
capabilities = license_edit
help         = learnmore.license.features
```

metric_alerts.conf

以下为 metric_alerts.conf 的规范和示例文件。

metric_alerts.conf.spec

```
#   Version 8.2.0
#
# This file contains possible setting/value pairs for metric alert entries in the
# metric_alerts.conf file. You can configure metric alerts by creating your own
# metric_alerts.conf file.
#
# There is a default metric_alerts.conf file in $SPLUNK_HOME/etc/system/default. To
# set custom configurations, place a metric_alerts.conf file in
# $SPLUNK_HOME/etc/system/local/. For examples, see the
# metric_alerts.conf.example file. You must restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top of
#    the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, settings are combined. In the case of multiple
#    definitions of the same settings, the last definition in the file wins.
#  * If a setting is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.

#*******
# The possible settings for the metric_alerts.conf file are:
#*******
```

[<alert_name>]

```
* The <alert_name> is the name of the metric alert.
* Required.

description = <string>
* This string provides a description of the metric alert.
* Optional.
* No default.

groupby = <list of dimension fields>
* The list of dimension fields, delimited by comma, for the group-by clause of
  the alert search.
* This leads to multiple aggregation values, one per group, instead of one
  single value.
* Optional.
* No default.

filter = <string>
* This setting provides one or more Boolean expressions like
  '<dimension_field>=<value>' to filter the search result dataset to monitor
  for the alert condition.
* Link multiple Boolean expressions with the 'AND' operator.
* The filter does not support subsearches, macros, tags, event types, or time
  modifiers such as 'earliest' or 'latest'.
* This setting combines with the metric_indexes setting to provide the full alert
  search filter.
* Optional.
* No default.
```

```
metric_indexes = <metric index name>
* Specifies one or more metric indexes, delimited by comma.
* Combines with the filter setting to filter the search result dataset to monitor
  for the alert condition.
* Required.
* No default.

condition = <boolean eval expression>
* Specifies an alert condition for one or more metric_name and aggregation
  pairs. The Splunk software applies this evaluation to the results of the
  alert search on a regular interval. This alert search takes the form of
  an 'mstats' search.
* When the alert condition evaluates to 'true', the Splunk software might trigger
  the alert, depending on how 'trigger.threshold' and 'trigger.suppress' are
  evaluated.
* The condition must reference at least one metric aggregation in single
  quotes: '<mstats_aggregation_function>(<metric_name>)'
* The condition can also reference dimensions specified in the group-by fields.
* Dimension field names starting with numeric characters or with non-alphanumeric
  characters must be surrounded by single quotation marks.
* If the expression references a literal string, the literal string must be
  surrounded by double quotation marks.
* Required.
* No default.

trigger.prepare = <string>
* Specifies a postprocessing search that the Splunk software applies to the
  filtered results of the alert search, before it runs the designated alert
  actions.
* Use this postprocessing search to augment or filter the filtered results of
  the alert search.
  * Employ commands like 'eval' or 'inputlookup' to rename existing fields in
    the results or add new fields to the results.
  * Design filters that remove unnecessary events from the result dataset used
    by the alert action.
* Optional.
* No default.

trigger.suppress = <time-specifier>
* Specifies the suppression period to silence alert actions and notifications.
  * The suppression period goes into effect when an alert is triggered.
  * During this period, if the alert is triggered again, its actions do not happen
    and its notifications do not go out.
  * When the period elapses, a subsequent triggering of the alert causes alert
    actions and notifications to take place as usual, and the alert is
    suppressed again.
* Use [number]m to specify a timespan in minutes.
* Set to 0 to disable suppression.
* Default: 0

trigger.expires = <time-specifier>
* Sets the period of time that a triggered alert record displays on the
  Triggered Alerts page.
* Use [positive integer][time-unit], where time_unit can be 'm' for minutes,
  'h' for hours, and 'd' for days.
* Set to 0 to make triggered alerts expire immediately so they do not appear on
  the Triggered Alerts page at all.
* Default: 24h

trigger.max_tracked = <number>
* Specifies the maximum number of instances of this alert that can display in
  the triggered alerts dashboard.
* When this threshold is passed, the Splunk software removes the earliest
  instances from the dashboard to honor this maximum number.
* Set to 0 to remove the cap.
* Default: 20

trigger.evaluation_per_group = <boolean>
* Optional.
* Only applies if 'groupby' is set.
* When set to true, the Splunk software independently evaluates the alert
  'condition', 'trigger.threshold', and 'trigger.suppress' settings against
  each result, in correspondence with a unique group of dimension field values
  defined by the 'groupby' setting.
* Use 'trigger.evaluation_per_group' in conjunction with the
  'trigger.action_per_group' setting.
* Default: false

trigger.action_per_group = <boolean>
* Optional.
* Only applies if 'groupby' and 'trigger.evaluation_per_group' are set.
* When set to true, the Splunk software runs actions for each result, in
  correspondence with a unique group of dimension field values defined by the
  'groupby' setting, using the evaluations produced by the
  'trigger.evaluation_per_group' setting.
* When 'trigger.evaluation_per_group' is enabled and this setting is disabled,
  the Splunk software runs the alert action only once when one or more groups
  meet the alert condition.
* This setting cannot be enabled when 'trigger.evaluation_per_group'
  is disabled.
* Default: false

trigger.threshold = [always|once|always after <number>m|once after <number>m]
* Specify when to perform an alert action such as sending an email:
  * always - Whenever the alert 'condition' is true.
  * once - Only once, the first time the alert 'condition' makes a positive
    state change from false to true.
  * always after <number>m - Whenever the alert 'condition' is met continuously
    for <number> minutes.
  * once after <number>m - Only once, the first time the alert 'condition' is
    met continuously for <number> minutes.
* Examples:
  * A setting of 'always after 5m' means that the Splunk software performs the
    alert action every time the alert condition is met for 5 minutes in a row.
    So if the alert condition is true for 8 minutes, the Splunk software
    performs the action 3 times.
  * A setting of 'once after 5m' means that the Splunk software performs the
    alert action the first time the alert condition is met for 5 minutes in a
    row. If the alert condition is met continuously for 8 minutes the Splunk
    software performs the action only once. If after that, the condition
    switches to false and is then true continuously for another 12 minutes, the
    Splunk software would perform the action again.
* Default: always

label.<label-name> = <label-value>
* Arbitrary key-value pairs for labeling this alert.
* These settings will be opaque to the backend (not interpreted in any way).
* Can be used by applications calling `alerts/metric_alerts` endpoint.

splunk_ui.<label-name> = <label-value>
* For Splunk internal use only.
* Arbitrary key-value pairs for labeling this alert for the exclusive use of
  the Splunk software.

splunk_ui.track = <boolean>
* Optional.
* Indicates whether the alert is tracked on the Triggered Alerts page and the
  Splunk Analytics Workspace.
* Defaults: false

splunk_ui.severity = <integer>
* Optional.
* Sets the severity level displayed for the alert in Splunk Web.
* Valid values are: 1-debug, 2-info, 3-warn, 4-error, 5-severe, 6-fatal
* Default: 3

#*******
# generic action settings.
# For a comprehensive list of actions and their arguments, refer to the
# alert_actions.conf file.
#*******

action.<action_name> = <boolean>
* Indicates whether the action is enabled or disabled for a particular metric
  alert.
* The 'action_name' can be: email | logevent | rss | script | webhook
* For more about the defined alert actions see the alert_actions.conf file.
* Optional.
* No default.

action.<action_name>.<parameter> = <value>
* Overrides an action's parameter as defined in the alert_actions.conf file,
  with a new <value> for this metric alert only.
* No default.

action.email.include.smaDefinition = [1|0]
* Specify whether to include streaming alert setup information in the email content.
* Setup information includes indexes, filter, groupby, condition.
```

metric_alerts.conf.example

```
#   Version 8.2.0
#
# This file contains example metric alerts.
#
# To use one or more of these configurations, copy the configuration block into
# metric_alerts.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# The following searches are example searches.  To create your own search,
# modify the values by following the spec outlined in metric_alerts.conf.spec.


[alert1]
groupby = host, app
filter = region=east
condition = 'avg(mem.used)' > 50
action.email = 1
action.email.to = nonexist@abc.xyz

[alert2]
groupby = host, app
filter = region=east
condition = 'max(cpu.util)' > 80
action.email = 1
action.email.to = nonexist@abc.xyz
```

metric_rollups.conf

以下为 metric_rollups.conf 的规范和示例文件。

metric_rollups.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attribute/value pairs for rollup policy entries in
# metric_rollups.conf.  You can configure rollup policies by creating your own
# metric_rollups.conf.
#
# There is a default metric_rollups.conf in $SPLUNK_HOME/etc/system/default. To
# set custom configurations, place a metric_rollups.conf in
# $SPLUNK_HOME/etc/system/local/.  For examples, see
# metric_rollups.conf.example. You must restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top of
#    the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, attributes are combined. In the case of multiple
#    definitions of the same attribute, the last definition in the file wins.
#  * If an attribute is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.

#*******
# The possible attribute/value pairs for metric_rollups.conf are:
#*******
```

[index:<Metric Index Name>]

```
* Each metric_rollups.conf stanza defines the rollup summarization policy for a
  specific metric index.
* A rollup policy can include multiple rollup summaries, each with a
  different rollup period.
* Go to indexes.conf to find metric index configurations. Metric indexes have
  datatype=metric in their configurations.

defaultAggregation = <'#' separated list of aggregation functions>
* Required. The default aggregation function for the rollup policy. The Splunk
  software uses this aggregation function to generate the rollup summmary data
  points for all metrics in the source index with the exception of metrics that
  are identified by 'aggregation.<metric_name>'
  exclusion rules.
* For example, if a rollup summary with a period of 1 hour has
  'defaultAggregation = avg', each metric data point that it generates is the
  average of an hour of data points from the source metric.
* Note that the 'perc' and 'upperperc' options require an integer.
* Supported aggregation functions: [avg|count|max|median|min|perc<int>|sum]
* Default: avg

dimensionList = <comma-separated list of dimensions>
* Optional. This setting provides a comma-separated list of dimensions. The
  dimensions must be present within the index to which the rollup policy
  applies.
* This list corresponds to the `dimensionListType` setting, which determines
  whether this set of dimensions is included or excluded from the rollup
  metrics that are generated by the rollup summary.
* Use the Metrics Catalog REST API endpoints to see the metrics and dimensions
  for a particular index. For more information see the REST API Reference
  Manual.
* Default: not set

dimensionListType = [excluded|included]
* Optional. This setting determines whether the list of dimensions specified by
  the `dimensionList` setting is included or excluded from the rollup metrics
  that are generated by the rollup summaries in the rollup policy.
* Select 'included' to indicate that the rollup metrics produced by the rollup
  policy will filter out all dimensions except the ones in the list.
* Select 'excluded' to indicate that the rollup metrics produced by the rollup
  policy will include all available dimensions except the ones in the list.
* Default: excluded

metricList = <comma-separated list of metrics>
* Optional. This setting provides a comma-separated list of metrics.
* This list corresponds to the 'metricListType' setting.
* The listed metrics must be present within the source metric index.
  * Use the Metrics Catalog REST API endpoints in conjunction with the 'rest'
    command to see the metrics that exist within a particular source index. See
    the REST API Reference Manual and the Search Reference for more information.
* Default: not set

metricListType = <excluded/included>
* Optional. This setting determines whether the list of metrics specified by
  the 'metricList' setting is included or excluded when the search head rolls
  metrics up to the rollup summaries.
* Select "included" to have the search head roll up only the listed metrics.
* Select "excluded" to have the search head roll up all available metrics in
  the source metric index except the listed metrics.
* Default: excluded

aggregation.<metric_name> = <'#' separated list of aggregation functions>
* Optional. Sets an exclusion rule for a rollup policy. Use this setting to
  override the 'defaultAggregation' setting for a specific metric.
* Create exclusion rules for metrics that require different aggregation
  functions than the majority of the metrics in a rollup policy.
* A single rollup policy can have multiple exclusion rules.
* Supported aggregation functions: [avg|count|max|median|min|perc<int>|sum]
* Default: no values

rollup.<summary number>.span = <time range string>
* Required for each rollup summary in the rollup policy.
* The Splunk software defines the '<summary number>' when you create a summary
  policy through Splunk Web or the REST API endpoint.
* Defines the rollup period for a rollup summary.
* The '<time range string>' cannot be shorter than the 'minSpanAllowed' setting
  in limits.conf.
* This setting is required. Do not leave it blank.
* Default for <summary number>: 1
* Default for <time range string>: 1h

rollup.<summary number>.rollupIndex = <string Index name>
* Required for each rollup summary in the rollup policy.
* Defines the target index for the rollup metrics generated by a rollup summary.
* The Splunk software defines the '<summary number>' when you create a summary
  policy through Splunk Web or the REST API endpoint.
* The index name must exist in indexes.conf.
* This setting is required. Do not leave it blank.
* Default for <summary number>: 1
* Default for <string Index name>: The <Metric Index Name> in the stanza header
  for this rollup policy.
```

metric_rollups.conf.example

```
#   Version 8.2.0
#
# This file contains example saved searches and alerts.
#
# To use one or more of these configurations, copy the configuration block into
# metric_rollups.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk
# to enable configurations.
#
```

```
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# The following searches are example searches.  To create your own search,
# modify the values by following the spec outlined in metric_rollups.conf.spec.

[index:mySourceMetricIndex]
# defaultAggregation is applied to all the measures/metric names unless overided
defaultAggregation = avg
# Override metric_name_1 aggregation from avg to min
aggregation.metric_name_1 = min
# Override metric_name_2 aggregation from avg to count
aggregation.metric_name_2 = count
# Exclude dimension_1 and dimension_2 during rollup
dimensionList = dimension_1, dimension_2
dimensionListType = excluded
# All the above settings applies globally to all the summary definitions below
# Each summary here specifies the target index and span
# Two summaries definied, need to define each summary as rollup.<0, 1, 2..>...
rollup.0.rollupIndex = myTargetMetricIndex_0
rollup.0.span = 1h
rollup.1.rollupIndex = myTargetMetricIndex_1
rollup.1.span = 1d
# Exclude metric_1 and metric_2 during rollup
metricList = metric_1, metric_2
metricListType = excluded
```

multikv.conf

以下为 multikv.conf 的规范和示例文件。

multikv.conf.spec

```
#   Version 8.2.0
#
# This file contains descriptions of the settings that you can use to
# create multikv rules.  Multikv is the process of extracting events
# from table-like events, such as the output of top, ps, ls, netstat, etc.
#
# There is NO DEFAULT multikv.conf.
#
# To set custom configurations, create a new file with the name multikv.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see multikv.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# NOTE: Only configure multikv.conf if the default multikv behavior does
# not meet your needs.

# A table-like event includes a table consisting of four sections:
#
```

章节名称 | 描述

```
# pre          | optional: info/description (for example: the system summary output in top)
# header       | optional: if not defined, fields are named Column_N
# body         | required: the body of the table from which child events are constructed
# post         | optional: info/description
#---------------------------------------------------------------------------------------

# NOTE: Each section must have a definition and a processing component. See
# below.

[<multikv_config_name>]
* Name of the stanza to use with the multikv search command, for example:
       '| multikv conf=<multikv_config_name> rmorig=f | ....'
* Follow this stanza name with any number of the following setting/value pairs.
```

章节定义

```
# Define where each section begins and ends.

<Section Name>.start = <regex>
* A line matching this regex denotes the start of this section (inclusive).

OR

<Section Name>.start_offset = <int>
* Line offset from the start of an event or the end of the previous section
  (inclusive).
* Use this if you cannot define a regex for the start of the section.

<Section Name>.member = <regex>
* A line membership test.
* Member if lines match the regex.

<Section Name>.end = <regex>
* A line matching this regex denotes the end of this section (exclusive).

OR

<Section Name>.linecount = <int>
* Specify the number of lines in this section.
* Use this if you cannot specify a regex for the end of the section.
```

章节处理

```
# Set processing for each section.

<Section Name>.ignore = [_all_|_none_|_regex_ <regex-list>]
* Determines which member lines will be ignored and not processed further.

<Section Name>.replace = <quoted-str> = <quoted-str>, <quoted-str> = <quoted-str>,...
* List of the form: "toReplace" = "replaceWith".
* Can have any number of quoted string pairs.
* For example: "%" = "_", "#" = "_"

<Section Name>.tokens = [<chopper>|<tokenizer>|<aligner>|<token-list>]
* See below for definitions of each possible token: chopper, tokenizer, aligner,
  and token-list.

<chopper> = _chop_, <int-list>
* A token that transform each string into a list of tokens specified by <int-list>.
* <int-list> is a list of (offset, length) tuples.

<tokenizer> = _tokenize_ <max_tokens (int)><delims> (<consume-delims>)?
* A token used to tokenize the string using the delimiter characters.
* This generates at most 'max_tokens' number of tokens.
* Set 'max_tokens' to:
  * -1 for complete tokenization.
  * 0 to inherit from the previous section, usually the header section.
  * A non-zero number for a specific token count.
* If tokenization is limited by the 'max_tokens', the rest of the string is added
  onto the last token.
* <delims> is a comma-separated list of delimiting characters.
* <consume-delims> - A Boolean that specifies whether to consume consecutive
  delimiters. Set to "false" or "0" if you want consecutive delimiters treated
  as empty values. Default: true

<aligner> = _align_, <header_string>, <side>, <max_width>
* A token that generates tokens by extracting text aligned to the specified header fields.
* header_string: A complete or partial header field value that the columns
  are aligned with.
* side: Either L or R (for left or right align, respectively).
* max_width: The maximum width of the extracted field.
  * Set 'max_width' to -1 for automatic width. This expands the field until any
    of the following delimiters are found: " ", "\t"

<token_list> = _token_list_ <comma-separated list>
* A token that defines a list of static tokens in a section.
* This setting is useful for tables with no header,
  for example: the output of 'ls -lah' which misses a header altogether.
```

multikv.conf.example

```
#   Version 8.2.0
#
# This file contains example multi key/value extraction configurations.
#
# To use one or more of these configurations, copy the configuration block into
# multikv.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# This example breaks up the output from top:

# Sample output:

# Processes: 56 total, 2 running, 54 sleeping... 221 threads 10:14:07
#.....
#
#   PID COMMAND  %CPU TIME     #TH #PRTS #MREGS RPRVT RSHRD RSIZE  VSIZE
# 29960 mdimport 0.0%  0:00.29  3    60    50  1.10M  2.55M 3.54M  38.7M
# 29905 pickup   0.0%  0:00.01  1    16    17   164K   832K  764K  26.7M
#....

[top_mkv]
# pre table starts at "Process..." and ends at line containing "PID"
pre.start = "Process"
pre.end = "PID"
pre.ignore = _all_

# specify table header location and processing
header.start = "PID"
header.linecount = 1
header.replace = "%" = "_", "#" = "_"
header.tokens = _tokenize_, -1," "

# table body ends at the next "Process" line (ie start of another top) tokenize
# and inherit the number of tokens from previous section (header)
body.end = "Process"
body.tokens  = _tokenize_,  0, " "
```

```
## This example handles the output of 'ls -lah' command:
#
# total 2150528
# drwxr-xr-x 88 john john 2K   Jan 30 07:56 .
# drwxr-xr-x 15 john john 510B Jan 30 07:49 ..
# -rw------- 1  john john 2K   Jan 28 11:25 .hiden_file
# drwxr-xr-x 20 john john 680B Jan 30 07:49 my_dir
# -r--r--r-- 1  john john 3K   Jan 11 09:00 my_file.txt


[ls-lah-cpp]
pre.start     = "total"
pre.linecount = 1

# the header is missing, so list the column names
header.tokens = _token_list_, mode, links, user, group, size, date, name

# The ends when we have a line starting with a space
body.end     = "^\s*$"
# This filters so that only lines that contain with .cpp are used
body.member  = "\.cpp"
# concatenates the date into a single unbreakable item
body.replace = "(\w{3})\s+(\d{1,2})\s+(\d{2}:\d{2})" ="\1_\2_\3"

# ignore dirs
body.ignore = _regex_ "^drwx.*",
body.tokens  = _tokenize_, 0, " "
```

outputs.conf

以下为 outputs.conf 的规范和示例文件。

outputs.conf.spec

```
#   Version 8.2.0
#
# Forwarders require outputs.conf. Splunk instances that do not forward
# do not use it. Outputs.conf determines how the forwarder sends data to
# receiving Splunk instances, either indexers or other forwarders.
#
# To configure forwarding, create an outputs.conf file in
# $SPLUNK_HOME/etc/system/local/. For examples of its use, see
# outputs.conf.example.
#
# You must restart the Splunk software to enable configurations.
#
# To learn more about configuration files (including precedence) see the topic
# "About Configuration Files" in the Splunk Enterprise Admin manual.
#
# To learn more about forwarding, see the topic "About forwarding and
# receiving data" in the Splunk Enterprise Forwarding manual.
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top
#     of the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file wins.
#   * If an setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
#   * Do not use the 'sslPassword', 'socksPassword', or 'token' settings
#     to set passwords in this stanza as they may remain readable to
#     attackers, specify these settings in the [tcpout] stanza instead.
```

TCP 输出段落

```
# There are three levels of TCP Output stanzas:
# * Global: [tcpout]
# * Target group: [tcpout:<target_group>]
# * Single server: [tcpout-server://<ip address>:<port>]
#
# Settings at more specific levels override settings at higher levels. For
# example, an setting set for a single server overrides the value of that
# setting, if any, set at that server's target group stanza. See the
# online documentation on configuring forwarders for details.
#
# This spec file first describes the three levels of stanzas (and any
# settings unique to a particular level). It then describes the optional
# settings, which you can set at any of the three levels.
# Default: true
# If set to 'true', prevents the logs from being forwarder to the indexing tiers.

[httpout]

httpEventCollectorToken = <string>
* The value of the HEC token.
* HEC uses this token to authenticate inbound connections.
* No default.

uri = <uri>
* The URI and management port of the Http Event Collector(HEC) end point.
* For example, https://SplunkHEC01.example.com:8088
* No default.

batchSize = <integer>
* The size of the HTTP OUT send buffer, in bytes.
* HTTP OUT batch pipeline data before sending out.
* If current buffer size is greater than batchSize(in bytes),
* the data will be send out immediately.
* Default = 65536

batchTimeout = <integer>
* How often ( in seconds) to send out pipeline data.
* HTTP OUT batch pipeline data before sending out.
* If the wait time is greater than batchTimeout (in seconds),
* the data will be send out immediately.
* Default = 30

#----TCP Output Global Configuration -----
# You can overwrite the global configurations specified here in the
# [tcpout] stanza in stanzas for specific target groups, as described later.
# You can only set the 'defaultGroup' and 'indexAndForward' settings
# here, at the global level.
#
# Starting with version 4.2, the [tcpout] stanza is no longer required.

[tcpout]

defaultGroup = <target_group>, <target_group>, ...
* A comma-separated list of one or more target group names, specified later
  in [tcpout:<target_group>] stanzas.
```

```
* The forwarder sends all data to the specified groups.
* If you don't want to forward data automatically, don't set this setting.
* Can be overridden by an inputs.conf '_TCP_ROUTING' setting, which in turn
  can be overridden by a props.conf or transforms.conf modifier.
* Starting with version 4.2, this setting is no longer required.

indexAndForward = <boolean>
* Set to "true" to index all data locally, in addition to forwarding it.
* This is known as an "index-and-forward" configuration.
* This setting is only available for heavy forwarders.
* This setting is only available at the top level [tcpout] stanza. It
  cannot be overridden in a target group.
* Default: false

#----Target Group Configuration -----

# If you specify multiple servers in a target group, the forwarder
# performs auto load-balancing, sending data alternately to each available
# server in the group. For example, assuming you have three servers
# (server1, server2, server3) and autoLBFrequency=30, the forwarder sends
# all data to server1 for 30 seconds, then it sends all data to server2 for
# the next 30 seconds, then all data to server3 for the next 30 seconds,
# finally cycling back to server1.
#
# You can have as many target groups as you want.
# If you specify more than one target group, the forwarder sends all data
# to each target group. This is known as "cloning" the data.
#
# NOTE: A target group stanza name cannot contain spaces or colons.
# Splunk software ignores target groups whose stanza names contain
# spaces or colons.

[tcpout:<target_group>]

server = [<ip>|<servername>]:<port>, [<ip>|<servername>]:<port>, ...
* A comma-separated list of one or more systems to send data to over a
  TCP socket.
* Required if the 'indexerDiscovery' setting is not set.
* Typically used to specify receiving Splunk systems, although you can use
  it to send data to non-Splunk systems (see the 'sendCookedData' setting).
* For each system you list, the following information is required:
  * The IP address or server name where one or more systems are listening.
  * The port on which the syslog server is listening.

blockWarnThreshold = <integer>
* The output pipeline send failure count threshold after which a
  failure message appears as a banner in Splunk Web.
* Optional.
* To disable Splunk Web warnings on blocked output queue conditions, set this
  to a large value (for example, 2000000).
* Default: 100

indexerDiscovery = <name>
* The name of the master node to use for indexer discovery.
* Instructs the forwarder to fetch the list of indexers from the master node
  specified in the corresponding [indexer_discovery:<name>] stanza.
* No default.

token = <string>
* The access token for receiving data.
* If you configured an access token for receiving data from a forwarder,
  Splunk software populates that token here.
* If you configured a receiver with an access token and that token is not
  specified here, the receiver rejects all data sent to it.
* This setting is optional.
* No default.

#----Single server configuration-----
```

```
# You can define specific configurations for individual indexers on a
# server-by-server basis. However, each server must also be part of a
# target group.

[tcpout-server://<ip address>:<port>]
* Optional. There is no requirement to have a [tcpout-server] stanzas.
```

TCPOUT 设置

```
# These settings are optional and can appear in any of the three stanza levels.

[tcpout<any of above>]

#----General Settings----

sendCookedData = <boolean>
* Whether or not to send processed or unprocessed data to the receiving server.
* If set to "true", events are cooked (have been processed by Splunk software).
* If set to "false", events are raw and untouched prior to sending.
* Set to "false" if you are sending events to a third-party system.
* Default: true

heartbeatFrequency = <integer>
* How often (in seconds) to send a heartbeat packet to the receiving server.
* This setting is a mechanism for the forwarder to know that the receiver
  (indexer) is alive. If the indexer does not send a return packet to the
  forwarder, the forwarder declares the receiver unreachable and does not
  forward data to it.
* The forwarder only sends heartbeats if the 'sendCookedData' setting
  is set to "true".
* Default: 30

blockOnCloning = <boolean>
* Whether or not the TcpOutputProcessor should wait until at least one
  of the cloned output groups receives events before attempting to send
  more events.
* If set to "true", the TcpOutputProcessor blocks until at least one of the
  cloned groups receives events. It does not drop events when all the
  cloned groups are down.
* If set to "false", the TcpOutputProcessor drops events when all the
  cloned groups are down and all queues for the cloned groups are full.
  When at least one of the cloned groups is up and queues are not full,
  the events are not dropped.
* Default: true

blockWarnThreshold = <integer>
* The output pipeline send failure count threshold, after which a
  failure message appears as a banner in Splunk Web.
* To disable Splunk Web warnings on blocked output queue conditions, set this
  to a large value (for example, 2000000).
* This setting is optional.
* Default: 100

compressed = <boolean>
* If set to "true", the receiver communicates with the forwarder in
  compressed format.
* If set to "true", you do not need to set the 'compressed' setting to "true"
  in the inputs.conf file on the receiver for compression
  of data to occur.
* This setting applies to non-SSL forwarding only. For SSL forwarding,
  Splunk software uses the 'useClientSSLCompression' setting.
* Default: false

negotiateProtocolLevel = <unsigned integer>
```

```
* When setting up a connection to an indexer, Splunk software tries to
  negotiate the use of the Splunk forwarder protocol with the
  specified feature level based on the value of this setting.
* If set to a lower value than the default, this setting denies the
  use of newer forwarder protocol features when it negotiates a connection.
  This might impact indexer efficiency.
* Default (if 'negotiateNewProtocol' is "true"): 1
* Default (if 'negotiateNewProtocol' is not "true"): 0

negotiateNewProtocol = <boolean>
* The default value of the 'negotiateProtocolLevel' setting.
* DEPRECATED. Set 'negotiateProtocolLevel' instead.
* Default: true

channelReapInterval = <integer>
* How often, in milliseconds, channel codes are reaped, or made
  available for re-use.
* This value sets the minimum time between reapings. In practice,
  consecutive reapings might be separated by greater than the number of
  milliseconds specified here.
* Default: 60000 (1 minute)

channelTTL = <integer>
* How long, in milliseconds, a channel can remain "inactive" before
  it is reaped, or before its code is made available for reuse by a
  different channel.
* Default: 300000 (5 minutes)

channelReapLowater = <integer>
* If the number of active channels is greater than 'channelReapLowater',
  Splunk software reaps old channels to make their channel codes available
  for reuse.
* If the number of active channels is less than 'channelReapLowater',
  Splunk software does not reap channels, no matter how old they are.
* This value essentially determines how many active-but-old channels Splunk
  software keeps "pinned" in memory on both sides of a
  Splunk-to-Splunk connection.
* A non-zero value helps ensure that Splunk software does not waste network
  resources by "thrashing" channels in the case of a forwarder sending
  a trickle of data.
* Default: 10

socksServer = [<ip>|<servername>]:<port>
* The IP address or servername of the Socket Secure version 5 (SOCKS5) server.
* Required.
* This setting specifies the port on which the SOCKS5 server is listening.
* After you configure and restart the forwarder, it connects to the SOCKS5
  proxy host, and optionally authenticates to the server on demand if
  you provide credentials.
* NOTE: Only SOCKS5 servers are supported.
* No default.

socksUsername = <username>
* The SOCKS5 username to use when authenticating against the SOCKS5 server.
* Optional.

socksPassword = <password>
* The SOCKS5 password to use when authenticating against the SOCKS5 server.
* Optional.

socksResolveDNS = <boolean>
* Whether or not the forwarder should rely on the SOCKS5 proxy server Domain
  Name Server (DNS) to resolve hostnames of indexers in the output group it is
  forwarding data to.
* If set to "true", the forwarder sends the hostnames of the indexers to the
  SOCKS5 server, and lets the SOCKS5 server do the name resolution. It
  does not attempt to resolve the hostnames on its own.
* If set to "false", the forwarder attempts to resolve the hostnames of the
  indexers through DNS on its own.
```

```
* Optional.
* Default: false

#----Queue Settings----

maxQueueSize = [<integer>|<integer>[KB|MB|GB]|auto]
* The maximum size of the forwarder output queue.
* The size can be limited based on the number of entries, or on the total
  memory used by the items in the queue.
* If specified as a lone integer (for example, "maxQueueSize=100"),
  the 'maxQueueSize' setting indicates the maximum count of queued items.
* If specified as an integer followed by KB, MB, or GB
  (for example, maxQueueSize=100MB), the 'maxQueueSize' setting indicates
  the maximum random access memory (RAM) size of all the items in the queue.
* If set to "auto", this setting configures a value for the output queue
  depending on the value of the 'useACK' setting:
  * If 'useACK' is set to "false", the output queue uses 500KB.
  * If 'useACK' is set to "true", the output queue uses 7MB.
* If you enable indexer acknowledgment by configuring the 'useACK'
  setting to "true", the forwarder creates a wait queue where it temporarily
  stores data blocks while it waits for indexers to acknowledge the receipt
  of data it previously sent.
  * The forwarder sets the wait queue size to triple the value of what
    you set for 'maxQueueSize.'
  * For example, if you set "maxQueueSize=1024KB" and "useACK=true",
    then the output queue is 1024KB and the wait queue is 3072KB.
  * Although the wait queue and the output queue sizes are both controlled
    by this setting, they are separate.
  * The wait queue only exists if 'useACK' is set to "true".
* Limiting the queue sizes by quantity is historical. However,
  if you configure queues based on quantity, keep the following in mind:
  * Queued items can be events or blocks of data.
    * Non-parsing forwarders, such as universal forwarders, send
      blocks, which can be up to 64KB.
    * Parsing forwarders, such as heavy forwarders, send events, which
      are the size of the events. Some events are as small as
      a few hundred bytes. In unusual cases (data dependent), you might
      arrange to produce events that are multiple megabytes.
* Default: auto
  * if 'useACK' is set to "true" and this setting is set to "auto", then
    the output queue is 7MB and the wait queue is 21MB.

dropEventsOnQueueFull = <integer>[ms|s|m]
* The amount of time to wait before the output queue throws out all
  new events until it has space.
* If set to 0ms(milliseconds) or 0s(seconds) or 0m(minutes),
  the queue throws out all new events immediately until it has space.
* If set to a positive number, the queue waits 'dropEventsonQueueFull'
  seconds before throwing out all new events.
* If set to -1 or 0, the output queue blocks when it is full. This further
  blocks events up the processing chain.
* If any target group queue is blocked, no more data reaches any other
  target group.
* Using auto load-balancing is the best way to minimize this condition.
  In this case, multiple receivers must be down (or jammed up) before
  queue blocking can occur.
* CAUTION: DO NOT SET THIS TO A POSITIVE INTEGER IF YOU ARE
  MONITORING FILES.
* Default: -1

dropClonedEventsOnQueueFull = <integer>[ms|s|m]
* The amount of time to wait before dropping events from the group.
* If set to 0ms(milliseconds) or 0s(seconds) or 0m(minutes),
  the queue throws out all new events immediately until it has space.
* If set to a positive number, the queue does not block completely, but
  waits up to 'dropClonedEventsOnQueueFull' seconds to queue events to a
  group.
  * If it cannot queue to a group for more than 'dropClonedEventsOnQueueFull'
    seconds, it begins dropping events from the group. It makes sure that at
    least one group in the cloning configuration can receive events.
  * The queue blocks if it cannot deliver events to any of the cloned groups.
* If set to -1, the TcpOutputProcessor ensures that each group
  receives all of the events. If one of the groups is down, the
  TcpOutputProcessor blocks everything.
* Default: 5 seconds

#######
# Backoff Settings When Unable To Send Events to Indexer
# The settings in this section determine forwarding behavior when there are
# repeated failures in sending events to an indexer ("sending failures").
#######

maxFailuresPerInterval = <integer>
* The maximum number of failures allowed per interval before a forwarder
  applies backoff (stops sending events to the indexer for a specified
  number of seconds). The interval is defined in the 'secsInFailureInterval'
  setting.
* Default: 2

secsInFailureInterval = <integer>
* The number of seconds contained in a failure interval.
* If the number of write failures to the indexer exceeds
  'maxFailuresPerInterval' in the specified 'secsInFailureInterval' seconds,
  the forwarder applies backoff.
* The backoff time period range is 1-10 * 'autoLBFrequency'.
* Default: 1

backoffOnFailure = <positive integer>
* The number of seconds a forwarder backs off, or stops sending events,
  before attempting to make another connection with the indexer.
* Default: 30

maxConnectionsPerIndexer = <integer>
* The maximum number of allowed connections per indexer.
* In the presence of failures, the maximum number of connection attempts
  per indexer at any point in time.
* Default: 2

connectionTimeout = <integer>
* The time to wait, in seconds, for a forwarder to establish a connection
  with an indexer.
* The connection times out if an attempt to establish a connection
  with an indexer does not complete in 'connectionTimeout' seconds.
* Default: 20

readTimeout = <integer>
* The time to wait, in seconds, for a forwarder to read from a socket it has
  created with an indexer.
* The connection times out if a read from a socket does not complete in
  'readTimeout' seconds.
* This timeout is used to read acknowledgment when indexer acknowledgment is
  enabled (when you set 'useACK' to "true").
* Default: 300 seconds (5 minutes)

writeTimeout = <integer>
* The time to wait, in seconds, for a forwarder to complete a write to a
  socket it has created with an indexer.
* The connection times out if a write to a socket does not finish in
  'writeTimeout' seconds.
* Default: 300 seconds (5 minutes)

connectionTTL = <integer>
* The time, in seconds, for a forwarder to keep a socket connection
  open with an existing indexer despite switching to a new indexer.
* This setting reduces the time required for indexer switching.
* Useful during frequent indexer switching potentially caused
  by using the 'autoLBVolume' setting.
* Default: 0 seconds
```

```
tcpSendBufSz = <integer>
* The size of the TCP send buffer, in bytes.
* Only use this setting if you are a TCP/IP expert.
* Useful to improve throughput with small events, like Windows events.
* Default: the system default

ackTimeoutOnShutdown = <integer>
* The time to wait, in seconds, for the forwarder to receive indexer
  acknowledgments during a forwarder shutdown.
* The connection times out if the forwarder does not receive indexer
  acknowledgements (ACKs) in 'ackTimeoutOnShutdown' seconds during
  forwarder shutdown.
* Default: 30 seconds

polling_interval = <integer>
* The initial time to wait upon splunk start, in seconds, for the forwarder to fetch
  the list of indexers from the indexer discovery server specified in
  the corresponding [indexer_discovery:<name>] stanza. Subsequently polling interval
  is set by indexer discovery server response.
* Default: 5 seconds

dnsResolutionInterval = <integer>
* The base time interval, in seconds, at which indexer Domain Name Server
  (DNS) names are resolved to IP addresses.
* This is used to compute runtime dnsResolutionInterval as follows:
  Runtime interval =
   'dnsResolutionInterval' + (number of indexers in server settings - 1) * 30.
* The DNS resolution interval is extended by 30 seconds for each additional
  indexer in the server setting.
* Default: 300 seconds (5 minutes)

forceTimebasedAutoLB = <boolean>
* Forces existing data streams to switch to a newly elected indexer every
  auto load balancing cycle.
* On universal forwarders, use the 'EVENT_BREAKER_ENABLE' and
  'EVENT_BREAKER' settings in props.conf rather than 'forceTimebasedAutoLB'
  for improved load balancing, line breaking, and distribution of events.
* Default: false

#----Index Filter Settings.
# These settings are only applicable under the global [tcpout] stanza.
# This filter does not work if it is created under any other stanza.

forwardedindex.<n>.whitelist = <regex>
forwardedindex.<n>.blacklist = <regex>
* These filters determine which events get forwarded to the index,
  based on the indexes the events are targeted to.
* An ordered list of whitelists and blacklists, which together
  decide if events are forwarded to an index.
* The order is determined by <n>. <n> must start at 0 and continue with
  positive integers, in sequence. There cannot be any gaps in the sequence.
  * For example:
    forwardedindex.0.whitelist, forwardedindex.1.blacklist,
    forwardedindex.2.whitelist, ...
* The filters can start from either whitelist or blacklist. They are tested
  from forwardedindex.0 to forwardedindex.<max>.
* If both forwardedindex.<n>.whitelist and forwardedindex.<n>.blacklist are
  present for the same value of n, then forwardedindex.<n>.whitelist is
  honored. forwardedindex.<n>.blacklist is ignored in this case.
* In general, you do not need to change these filters from their default
  settings in $SPLUNK_HOME/system/default/outputs.conf.
* Filtered out events are not indexed if you do not enable local indexing.

forwardedindex.filter.disable = <boolean>
* Whether or not index filtering is active.
* If set to "true", disables index filtering. Events for all indexes are then
  forwarded.
* Default: false
```

```
#----Automatic Load-Balancing
# Automatic load balancing is the only way to forward data.
# Round-robin method of load balancing is no longer supported.

autoLBFrequency = <integer>
* The amount of time, in seconds, that a forwarder sends data to an indexer
  before redirecting outputs to another indexer in the pool.
* Use this setting when you are using automatic load balancing of outputs
  from universal forwarders (UFs).
* Every 'autoLBFrequency' seconds, a new indexer is selected randomly from the
  list of indexers provided in the server setting of the target group
  stanza.
* Default: 30

autoLBVolume = <integer>
* The volume of data, in bytes, to send to an indexer before a new indexer
  is randomly selected from the list of indexers provided in the server
  setting of the target group stanza.
* This setting is closely related to the 'autoLBFrequency' setting.
  The forwarder first uses 'autoLBVolume' to determine if it needs to
  switch to another indexer. If the 'autoLBVolume' is not reached,
  but the 'autoLBFrequency' is, the forwarder switches to another
  indexer as the forwarding target.
* A non-zero value means that volume-based forwarding is active.
* 0 means the volume-based forwarding is not active.
* Default: 0

maxSendQSize = <integer>
* The size of the tcpout client send buffer, in bytes.
  If tcpout client(indexer/receiver connection) send buffer is full,
  a new indexer is randomly selected from the list of indexers provided
  in the server setting of the target group stanza.
* This setting allows forwarder to switch to new indexer/receiver if current
  indexer/receiver is slow.
* A non-zero value means that max send buffer size is set.
* 0 means no limit on max send buffer size.
* Default: 0

#----Secure Sockets Layer (SSL) Settings----

# To set up SSL on the forwarder, set the following setting/value pairs.
# If you want to use SSL for authentication, add a stanza for each receiver
# that must be certified.

useSSL = <true|false|legacy>
* Whether or not the forwarder uses SSL to connect to the receiver, or relies
  on the 'clientCert' setting to be active for SSL connections.
* You do not need to set 'clientCert' if 'requireClientCert' is set to
  "false" on the receiver.
* If set to "true", then the forwarder uses SSL to connect to the receiver.
* If set to "false", then the forwarder does not use SSL to connect to the
  receiver.
* If set to "legacy", then the forwarder uses the 'clientCert' property to
  determine whether or not to use SSL to connect.
* Default: legacy

sslPassword = <password>
* The password associated with the Certificate Authority certificate (CAcert).
* The default Splunk CAcert uses the password "password".
* No default.

clientCert = <path>
* The full path to the client SSL certificate in Privacy Enhanced Mail (PEM)
  format.
* If you have not set 'useSSL', then this connection uses SSL if and only if
  you specify this setting with a valid client SSL certificate file.
* No default.
```

```
sslCertPath = <path>
* The full path to the client SSL certificate.
* DEPRECATED.
* Use the 'clientCert' setting instead.

cipherSuite = <string>
* The specified cipher string for the input processors.
* This setting ensures that the server does not accept connections using weak
  encryption protocols.
* The default can vary. See the 'cipherSuite' setting in
  $SPLUNK_HOME/etc/system/default/outputs.conf for the current default.

sslCipher = <string>
* The specified cipher string for the input processors.
* DEPRECATED.
* Use the 'cipherSuite' setting instead.

ecdhCurves = <comma-separated list>
* A list of Elliptic Curve-Diffie-Hellmann curves to use for ECDH
  key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of an SSL Client Hello.
* The server supports only the curves specified in the list.
* Splunk software only supports named curves that have been specified
  by their SHORT names.
* The list of valid named curves by their short and long names can be obtained
  by running this CLI command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Example setting: "ecdhCurves = prime256v1,secp384r1,secp521r1"
* The default can vary. See the 'ecdhCurves' setting in
  $SPLUNK_HOME/etc/system/default/outputs.conf for the current default.

sslRootCAPath = <path>
* The full path to the root Certificate Authority (CA) certificate store.
* DEPRECATED.
* Use the 'server.conf/[sslConfig]/sslRootCAPath' setting instead.
* Used only if 'sslRootCAPath' in server.conf is not set.
* The <path> must refer to a Privacy Enhanced Mail (PEM) format file
  containing one or more root CA certificates concatenated together.
* No default.

sslVerifyServerCert = <boolean>
* Serves as an additional step for authenticating your indexers.
* If "true", ensure that the server you are connecting to has a valid
  SSL certificate. Note that certificates with the same Common Name as
  the CA's certificate will fail this check.
* Both the common name and the alternate name of the server are then checked
  for a match.
* Default: false

tlsHostname = <string>
* A Transport Layer Security (TLS) extension that allows sending an identifier
  with SSL Client Hello.
* Default: empty string

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* Checks the Common Name of the server's certificate against the names listed here.
* The Common Name identifies the host name associated with the certificate.
  For example, example www.example.com or example.com
* If there is no match, assume that Splunk software is not authenticated
  against this server.
* You must set the 'sslVerifyServerCert' setting to "true" for this setting
  to work.
* This setting is optional.
* Default: empty string (no common name checking).

sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
* Checks the alternate name of the server's certificate against the names listed here.
* If there is no match, assume that Splunk software is not authenticated
```

```
  against this server.
* You must set the 'sslVerifyServerCert' setting to "true" for this setting to work.
* This setting is optional.
* Default: no alternate name checking

useClientSSLCompression = <boolean>
* Enables compression on SSL.
* Default: true

sslQuietShutdown = <boolean>
* Enables quiet shutdown mode in SSL.
* Default: false

sslVersions = <comma-separated list>
* A comma-separated list of SSL versions to support.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2"
* The special version "*" selects all supported versions. The version "tls"
  selects all versions tls1.0 or newer
* If you prefix a version with "-", it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list, but
  does nothing.
* When configured in FIPS mode, "ssl3" is always disabled regardless
  of this configuration.
* The default can vary. See the 'sslVersions' setting in
  $SPLUNK_HOME/etc/system/default/outputs.conf for the current default.

#----Indexer Acknowledgment ----
# Indexer acknowledgment ensures that forwarded data is reliably delivered
# to the receiver.
#
# If the receiver is an indexer, it indicates that the indexer has received
# the data, indexed it, and written it to the file system. If the receiver
# is an intermediate forwarder, it indicates that the intermediate forwarder
# has successfully forwarded the data to the terminating indexer and has
# received acknowledgment from that indexer.
#
# Indexer acknowledgment is a complex feature that requires
# careful planning. Before using it, read the online topic describing it in
# the Splunk Enterprise Distributed Deployment manual.

useACK = <boolean>
* Whether or not to use indexer acknowledgment.
* Indexer acknowledgment is an optional capability on forwarders that helps
  prevent loss of data when sending data to an indexer.
* When set to "true", the forwarder retains a copy of each sent event
  until the receiving system sends an acknowledgment.
  * The receiver sends an acknowledgment when it has fully handled the event
    (typically when it has written it to disk in indexing).
  * If the forwarder does not receive an acknowledgment, it resends the data
    to an alternative receiver.
  * NOTE: The maximum memory used for the outbound data queues increases
    significantly by default (500KB -> 28MB) when the 'useACK' setting is
    enabled. This is intended for correctness and performance.
* When set to "false", the forwarder considers the data fully processed
  when it finishes writing it to the network socket.
* You can configure this setting at the [tcpout] or [tcpout:<target_group>]
  stanza levels. You cannot set it for individual servers at the
  [tcpout-server: ...] stanza level.
* Default: false
```

Syslog 输出----

```
# The syslog output processor is not available for universal or light
# forwarders.

# The following configuration is used to send output using syslog.
```

```
[syslog]

defaultGroup = <target_group>, <target_group>, ...

dropEventsOnQueueFull = <integer>[ms|s|m]
* See 'dropEventsOnQueueFull' in the "[tcpout]" stanza for
  information on this setting.

dropClonedEventsOnQueueFull = <integer>[ms|s|m]
* See 'dropClonedEventsOnQueueFull' in the "[tcpout]" stanza for
  information on this setting.

#######
# For the following settings, see the [syslog:<target_group>] stanza.

type = [tcp|udp]
priority = <<integer>> | NO_PRI
maxEventSize = <integer>

[syslog:<target_group>]

#----REQUIRED SETTINGS----
# The following settings are required for a syslog output group.

server = [<ip>|<servername>]:<port>
* The IP address or servername where the syslog server is running.
* Required.
* This setting specifies the port on which the syslog server listens.
* Default: 514

#----OPTIONAL SETTINGS----

# The following are optional settings for syslog output:

type = [tcp|udp]
* The network protocol to use.
* Default: udp

priority = <<integer>>|NO_PRI
* The priority value included at the beginning of each syslog message.
* The priority value ranges from 0 to 191 and is made up of a Facility
  value and a Level value.
* Enclose the priority value in "<>" delimeters. For example, specify a
  priority of 34 as follows: <34>
* The integer must be one to three digits in length.
* The value you enter appears in the syslog header.
* The value mimics the number passed by a syslog interface call. See the
  *nix man page for syslog for more information.
* Calculate the priority value as follows: Facility * 8 + Severity
  For example, if Facility is 4 (security/authorization messages)
  and Severity is 2 (critical conditions), the priority will be
  (4 * 8) + 2 = 34. Set the setting to <34>.
* If you do not want to add a priority value, set the priority to "<NO_PRI>".
* The table of facility and severity (and their values) is located in
  RFC3164. For example, http://www.ietf.org/rfc/rfc3164.txt section 4.1.1
* The table is reproduced briefly below. Some values are outdated.
  Facility:
     0 kernel messages
     1 user-level messages
     2 mail system
     3 system daemons
     4 security/authorization messages
     5 messages generated internally by syslogd
     6 line printer subsystem
     7 network news subsystem
     8 UUCP subsystem
     9 clock daemon
    10 security/authorization messages
    11 FTP daemon
    12 NTP subsystem
    13 log audit
    14 log alert
    15 clock daemon
    16 local use 0  (local0)
    17 local use 1  (local1)
    18 local use 2  (local2)
    19 local use 3  (local3)
    20 local use 4  (local4)
    21 local use 5  (local5)
    22 local use 6  (local6)
    23 local use 7  (local7)
  Severity:
    0  Emergency: system is unusable
    1  Alert: action must be taken immediately
    2  Critical: critical conditions
    3  Error: error conditions
    4  Warning: warning conditions
    5  Notice: normal but significant condition
    6  Informational: informational messages
    7  Debug: debug-level messages
* Default: <13> (Facility of "user" and Severity of "Notice")

syslogSourceType = <string>
* Specifies an additional rule for handling data, in addition to that
  provided by the 'syslog' source type.
* This string is used as a substring match against the sourcetype key. For
  example, if the string is set to "syslog", then all sourcetypes
  containing the string 'syslog' receive this special treatment.
* To match a sourcetype explicitly, use the pattern
  "sourcetype::sourcetype_name".
    * Example: syslogSourceType = sourcetype::apache_common
* Data that is "syslog" or matches this setting is assumed to already be in
  syslog format.
* Data that does not match the rules has a header, optionally a timestamp
  (if defined in 'timestampformat'), and a hostname added to the front of
  the event. This is how Splunk software causes arbitrary log data to match syslog expectations.
* No default.

timestampformat = <format>
* If specified, Splunk software prepends formatted timestamps to events
  forwarded to syslog.
* As above, this logic is only applied when the data is not syslog, or the
  type specified in the 'syslogSourceType' setting, because it is assumed
  to already be in syslog format.
* If the data is not in syslog-compliant format and you do not specify a
 'timestampformat', the output will not be RFC3164-compliant.
* The format is a strftime (string format time)-style timestamp formatting
  string. This is the same implementation used in the 'eval' search command,
  Splunk logging, and other places in splunkd.
  * For example: %b %e %H:%M:%S for RFC3164-compliant output
    * %b - Abbreviated month name (Jan, Feb, ...)
    * %e - Day of month
    * %H - Hour
    * %M - Minute
    * %s - Second
* For a more exhaustive list of the formatting specifiers, refer to the
  online documentation.
* Do not put the string in quotes.
* No default. No timestamp is added to the front of events.

maxEventSize = <integer>
* The maximum size of an event, in bytes, that Splunk software will transmit.
* All events exceeding this size are truncated.
* Optional.
* Default: 1024

#---- Routing Data to Syslog Server -----
```

```
# To route data to syslog servers:
# 1) Decide which events to route to which servers.
# 2) Edit the props.conf, transforms.conf, and outputs.conf files on the
#    forwarders.

# Edit $SPLUNK_HOME/etc/system/local/props.conf and set a TRANSFORMS-routing
# setting as shown below.
#
# [<spec>]
# TRANSFORMS-routing=<unique_stanza_name>

* <spec> can be:
  * <sourcetype>, the source type of an event
  * host::<host>, where <host> is the host for an event
  * source::<source>, where <source> is the source for an event

* Use the <unique_stanza_name> when creating your entry in transforms.conf.

# Edit $SPLUNK_HOME/etc/system/local/transforms.conf and set rules to match
# your props.conf stanza:
#
#  [<unique_stanza_name>]
#  REGEX = <your_regex>
#  DEST_KEY = _SYSLOG_ROUTING
#  FORMAT = <unique_group_name>

* Set <unique_stanza_name> to match the name you created in props.conf.
* Enter the regex rules in 'REGEX' to determine which events get
  conditionally routed.
* Set 'DEST_KEY' to "_SYSLOG_ROUTING" to send events via syslog.
* Set 'FORMAT' to match the syslog group name you create in outputs.conf.
```

IndexAndForward 处理器-----

```
# The IndexAndForward processor determines the default behavior for indexing
# data on a Splunk instance. It has the "index" property, which determines
# whether indexing occurs.
#
# When Splunk is not configured as a forwarder, 'index' is set to "true".
# That is, the Splunk instance indexes data by default.
#
# When Splunk is configured as a forwarder, the processor sets 'index' to
# "false". That is, the Splunk instance does not index data by default.
#
# The IndexAndForward processor has no effect on the universal forwarder,
# which can never index data.
#
# If the [tcpout] stanza configures the indexAndForward setting, the value
# of that setting overrides the default value of 'index'. However, if you
# set 'index' in the [indexAndForward] stanza described below, it
# supersedes any value set in [tcpout].

[indexAndForward]

index = <boolean>
* Turns indexing on or off on a Splunk instance.
* If set to "true", the Splunk instance indexes data.
* If set to "false", the Splunk instance does not index data.
* The default can vary. It depends on whether the Splunk
  instance is configured as a forwarder, and whether it is
  modified by any value configured for the indexAndForward
  setting in [tcpout].

selectiveIndexing = <boolean>
* Whether or not to index specific events that have the
```

```
  '_INDEX_AND_FORWARD_ROUTING' setting configured.
* If set to "true", you can choose to index only specific events that have
  the '_INDEX_AND_FORWARD_ROUTING' setting configured.
* Configure the '_INDEX_AND_FORWARD_ROUTING' setting in inputs.conf as:
  [<input_stanza>]
  _INDEX_AND_FORWARD_ROUTING = local
* Default: false

[indexer_discovery:<name>]

pass4SymmKey = <string>
* The security key used to communicate between the cluster master
  and the forwarders.
* This value must be the same for all forwarders and the master node.
* You must explicitly set this value for each forwarder.
* If you specify a password here, you must also specify the same password
  on the master node identified by the 'master_uri' setting.

send_timeout = <seconds>
* Low-level timeout for sending messages to the master node.
* Fractional seconds are allowed (for example, 60.95 seconds).
* Default: 30

rcv_timeout = <seconds>
* Low-level timeout for receiving messages from the master node.
* Fractional seconds are allowed (for example, 60.95 seconds).
* Default: 30

cxn_timeout = <seconds>
* Low-level timeout for connecting to the master node.
* Fractional seconds are allowed (for example, 60.95 seconds).
* Default: 30

master_uri = <uri>
* The URI and management port of the cluster master used in indexer discovery.
* For example, https://SplunkMaster01.example.com:8089
```

远程队列输出

```
[remote_queue:<name>]

* This section explains possible settings for configuring a remote queue.
* Each remote_queue stanza represents an individually configured remote
  queue output.
* Note that only ONE remote queue stanza is supported as an
  output queue.

remote_queue.* = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* This section explains possible settings for configuring a remote queue.
* With remote queues, the splunk indexer might require additional configuration,
  specific to the type of remote queue. You can pass configuration information
  to the splunk indexer by specifying the settings through the following schema:
  remote_queue.<scheme>.<config-variable> = <value>.
  For example:
  remote_queue.sqs.access_key = ACCESS_KEY
* This setting is optional.
* No default.

remote_queue.type = sqs|kinesis|sqs_smartbus
* Currently not supported. This setting is related to a feature that is
  still under development.
* Required.
* Specifies the remote queue type, either SQS or Kinesis or SQS Smartbus.

compressed = <boolean>
* See the description for TCPOUT SETTINGS in outputs.conf.spec.

negotiateProtocolLevel = <unsigned integer>
* See the description for TCPOUT SETTINGS in outputs.conf.spec.

channelReapInterval = <integer>
* See the description for TCPOUT SETTINGS in outputs.conf.spec.

channelTTL = <integer>
* See the description for TCPOUT SETTINGS in outputs.conf.spec.

channelReapLowater = <integer>
* See the description for TCPOUT SETTINGS in outputs.conf.spec.

concurrentChannelLimit = <unsigned integer>
* See the description for [splunktcp] in inputs.conf.spec.
```

特定于简单队列服务（SQS）的设置

```
remote_queue.sqs.access_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The access key to use when authenticating with the remote queue
  system that supports the SQS API.
* If not specified, the forwarder looks for the environment variables
  AWS_ACCESS_KEY_ID or AWS_ACCESS_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the forwarder
  attempts to use the secret key from the IAM (Identity and Access
  Management) role.
* Default: not set

remote_queue.sqs.secret_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Specifies the secret key to use when authenticating with the remote queue
  system supporting the SQS API.
* If not specified, the forwarder looks for the environment variables
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the forwarder
  attempts to use the secret key from the IAM (Identity and Access
  Management) role.
* Default: not set

remote_queue.sqs.auth_region = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The authentication region to use when signing the requests while interacting
  with the remote queue system supporting the Simple Queue Service (SQS) API.
* If not specified and the forwarder is running on EC2, the auth_region is
  constructed automatically based on the EC2 region of the instance where the
  the forwarder is running.
* Default: not set

remote_queue.sqs.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The URL of the remote queue system supporting the Simple Queue Service (SQS) API.
* Use the scheme, either http or https, to enable or disable SSL connectivity
```

```
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://sqs.<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via the 'remote_queue.sqs.auth_region' setting
  or a value constructed automatically based on the EC2 region of the
  running instance.
* Example: https://sqs.us-west-2.amazonaws.com/

remote_queue.sqs.message_group_id = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Specifies the Message Group ID for Amazon Web Services Simple Queue Service
  (SQS) First-In, First-Out (FIFO) queues.
* Setting a Message Group ID controls how messages within an AWS SQS queue are
  processed.
* For information on SQS FIFO queues and how messages in those queues are
  processed, see "Recommendations for FIFO queues" in the AWS SQS Developer
  Guide.
* If you configure this setting, Splunk software assumes that the SQS queue is
  a FIFO queue, and that messages in the queue should be processed first-in,
  first-out.
* Otherwise, Splunk software assumes that the SQS queue is a standard queue.
* Can be between 1-128 alphanumeric or punctuation characters.
* NOTE: FIFO queues must have Content-Based De-duplication enabled.
* Default: not set

remote_queue.sqs.retry_policy = max_count|none
* Sets the retry policy to use for remote queue operations.
* Optional.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times a queue operation is
    retried upon intermittent failure. Set max_count with the
    'max_count.max_retries_per_part' setting.
  + "none": Do not retry file operations upon failure.
* Default: max_count

remote_queue.sqs.max_count.max_retries_per_part = <unsigned integer>
* When the 'remote_queue.sqs.retry_policy' setting is "max_count", sets the
  maximum number of times a queue operation will be retried upon intermittent
  failure.
* Optional.
* Default: 9

remote_queue.sqs.timeout.connect = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the connection timeout, in milliseconds, to use when interacting with
  the SQS for this queue.
* Default: 5000

remote_queue.sqs.timeout.read = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the read timeout, in milliseconds, to use when interacting with the
  SQS for this queue.
* Default: 60000

remote_queue.sqs.timeout.write = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the write timeout, in milliseconds, to use when interacting with
  the SQS for this queue.
```

```
* Default: 60000

remote_queue.sqs.large_message_store.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The URL of the remote storage system supporting the S3 API.
* Use the scheme, either http or https, to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://s3-<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via 'remote_queue.sqs.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://s3-us-west-2.amazonaws.com/
* Default: not set

remote_queue.sqs.large_message_store.path = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The remote storage location where messages larger than the underlying
  queue's maximum message size will reside.
* The format for this value is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string for
    identifying a location inside the storage system.
* The following external systems are supported:
  * Object stores that support AWS's S3 protocol. These stores use the scheme
    "s3". For example, "path=s3://mybucket/some/path".
* If not specified, the queue drops messages exceeding the underlying queue's
  maximum message size.
* Default: not set

remote_queue.sqs.send_interval = <number><unit>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The interval that the remote queue output processor waits for data to
  arrive before sending a partial batch to the remote queue.
* Examples: 30s, 1m
* Default: 30s

remote_queue.sqs.max_queue_message_size = <integer>[KB|MB|GB]
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The maximum message size to which events are batched for upload to
  the remote queue.
* Specify this value as an integer followed by KB, MB, or GB (for example,
  10MB is 10 megabytes)
* Queue messages are sent to the remote queue when the next event processed
would otherwise result in a message exceeding the maximum message size.
* The maximum value for this setting is 5GB.
* Default: 10MB

remote_queue.sqs.enable_data_integrity_checks = <boolean>
* If "true", Splunk software sets the data checksum in the metadata field of
  the HTTP header during upload operation to S3.
* The checksum is used to verify the integrity of the data on uploads.
* Default: false

remote_queue.sqs.enable_signed_payloads  = <boolean>
* If "true", Splunk software signs the payload during upload operation to S3.
* This setting is valid only for remote.s3.signature_version = v4
* Default: true
```

特定于 Kinesis 的设置

```
remote_queue.kinesis.access_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Specifies the access key to use when authenticating with the remote queue
  system supporting the Kinesis API.
* If not specified, the forwarder looks for the environment variables
  AWS_ACCESS_KEY_ID or AWS_ACCESS_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the forwarder
  attempts to use the secret key from the IAM role.
* Default: not set

remote_queue.kinesis.secret_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Specifies the secret key to use when authenticating with the remote queue
  system supporting the Kinesis API.
* If not specified, the forwarder looks for the environment variables
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the forwarder
  attempts to use the secret key from the IAM role.
* Default: not set

remote_queue.kinesis.auth_region = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The authentication region to use when signing the requests when interacting
  with the remote queue system supporting the Kinesis API.
* If not specified and the forwarder is running on EC2, the auth_region is
  constructed automatically based on the EC2 region of the instance where the
  the forwarder is running.
* Default: not set

remote_queue.kinesis.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The URL of the remote queue system supporting the Kinesis API.
* Use the scheme, either http or https, to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://kinesis.<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via the 'remote_queue.kinesis.auth_region' setting
  or a value constructed automatically based on the EC2 region of the running instance.
* Example: https://kinesis.us-west-2.amazonaws.com/

remote_queue.kinesis.enable_data_integrity_checks = <boolean>
* If "true", Splunk software sets the data checksum in the metadata field
  of the HTTP header during upload operation to S3.
* The checksum is used to verify the integrity of the data on uploads.
* Default: false

remote_queue.kinesis.enable_signed_payloads  = <boolean>
* If "true", Splunk software signs the payload during upload operation to S3.
* This setting is valid only for remote.s3.signature_version = v4
* Default: true

remote_queue.kinesis.retry_policy = max_count|none
* Sets the retry policy to use for remote queue operations.
* Optional.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
```

```
* Retry policies:
  + "max_count": Imposes a maximum number of times a queue operation is
    retried upon intermittent failure. Specify the max_count with the
    'max_count.max_retries_per_part' setting.
  + "none": Do not retry file operations upon failure.
* Default: max_count

remote_queue.kinesis.max_count.max_retries_per_part = <unsigned integer>
* When the 'remote_queue.kinesis.retry_policy' setting is max_count,
  sets the maximum number of times a queue operation is retried
  upon intermittent failure.
* Optional.
* Default: 9

remote_queue.kinesis.timeout.connect = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the connection timeout, in milliseconds, to use when interacting with
  Kinesis for this queue.
* Default: 5000

remote_queue.kinesis.timeout.read = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the read timeout, in milliseconds, to use when interacting with Kinesis
  for this queue.
* Default: 60000

remote_queue.kinesis.timeout.write = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the write timeout, in milliseconds, to use when interacting with
  Kinesis for this queue.
* Default: 60000

remote_queue.kinesis.large_message_store.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The URL of the remote storage system supporting the S3 API.
* Use the scheme, either http or https, to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://s3-<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via 'remote_queue.kinesis.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://s3-us-west-2.amazonaws.com/
* Default: not set

remote_queue.kinesis.large_message_store.path = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The remote storage location where messages larger than the underlying
  queue's maximum message size will reside.
* The format for this setting is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string for
    identifying a location inside the storage system.
* The following external systems are supported:
   * Object stores that support AWS's S3 protocol. These stores use the
     scheme "s3".
     For example, "path=s3://mybucket/some/path".
* If not specified, the queue drops messages exceeding the underlying queue's
  maximum message size.
```

```
* Default: not set

remote_queue.kinesis.send_interval = <number><unit>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The interval that the remote queue output processor waits for data to
  arrive before sending a partial batch to the remote queue.
* For example, 30s, 1m
* Default: 30s

remote_queue.kinesis.max_queue_message_size = <integer>[KB|MB|GB]
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The maximum message size to which events are batched for upload to the remote
  queue.
* Specify this value as an integer followed by KB or MB (for example, 500KB
  is 500 kilobytes).
* Queue messages are sent to the remote queue when the next event processed
would otherwise result in the message exceeding the maximum message size.
* The maximum value for this setting is 5GB.
* Default: 10MB

remote_queue.kinesis.tenantId = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The ID of the tenant that owns the messages being
  written to the remote queue.
* If not specified, the messages do not belong to any tenant.
* Default: not set
```

特定于简单队列服务 Smartbus（SQS Smartbus）的设置

```
remote_queue.sqs_smartbus.encoding_format = protobuf|s2s
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies the encoding format used to write data to the
  remote queue.
* Default: protobuf

remote_queue.sqs_smartbus.access_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The access key to use when authenticating with the remote queue
  system that supports the SQS API.
* If not specified, the splunk instance looks for the environment variables
  AWS_ACCESS_KEY_ID or AWS_ACCESS_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the splunk instance
  attempts to use the secret key from the IAM (Identity and Access
  Management) role.
* Default: not set

remote_queue.sqs_smartbus.secret_key = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Specifies the secret key to use when authenticating with the remote queue
  system supporting the SQS API.
* If not specified, the splunk instance looks for the environment variables
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order). If the environment
  variables are not set and the forwarder is running on EC2, the splunk instance
  attempts to use the secret key from the IAM (Identity and Access
  Management) role.
* Default: not set

remote_queue.sqs_smartbus.auth_region = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The authentication region to use when signing the requests while interacting
  with the remote queue system supporting the Simple Queue Service (SQS) API.
* If not specified and the splunk instance is running on EC2, the auth_region is
  constructed automatically based on the EC2 region of the instance where the
  the splunk instance is running.
* Default: not set

remote_queue.sqs_smartbus.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The URL of the remote queue system supporting the Simple Queue Service (SQS) API.
* Use the scheme, either http or https, to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://sqs.<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via the 'remote_queue.sqs.auth_region' setting
  or a value constructed automatically based on the EC2 region of the
  running instance.
* Example: https://sqs.us-west-2.amazonaws.com/

remote_queue.sqs_smartbus.message_group_id = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Specifies the Message Group ID for Amazon Web Services Simple Queue Service
  (SQS) First-In, First-Out (FIFO) queues.
* Setting a Message Group ID controls how messages within an AWS SQS queue are
  processed.
* For information on SQS FIFO queues and how messages in those queues are
  processed, see "Recommendations for FIFO queues" in the AWS SQS Developer
  Guide.
* If you configure this setting, Splunk software assumes that the SQS queue is
  a FIFO queue, and that messages in the queue should be processed first-in,
  first-out.
* Otherwise, Splunk software assumes that the SQS queue is a standard queue.
* Can be between 1-128 alphanumeric or punctuation characters.
* NOTE: FIFO queues must have Content-Based De-duplication enabled.
* Default: not set

remote_queue.sqs_smartbus.retry_policy = max_count|none
* Sets the retry policy to use for remote queue operations.
* Optional.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times a queue operation is
    retried upon intermittent failure. Set max_count with the
    'max_count.max_retries_per_part' setting.
  + "none": Do not retry file operations upon failure.
* Default: max_count

remote_queue.sqs_smartbus.max_count.max_retries_per_part = <unsigned integer>
* When the 'remote_queue.sqs_smartbus.retry_policy' setting is "max_count", sets the
  maximum number of times a queue operation will be retried upon intermittent
  failure.
* Optional.
* Default: 3

remote_queue.sqs_smartbus.timeout.connect = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
```

```
  still under development.
* Optional.
* Sets the connection timeout, in milliseconds, to use when interacting with
  the SQS for this queue.
* Default: 5000

remote_queue.sqs_smartbus.timeout.read = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the read timeout, in milliseconds, to use when interacting with the
  SQS for this queue.
* Default: 60000

remote_queue.sqs_smartbus.timeout.write = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Sets the write timeout, in milliseconds, to use when interacting with
  the SQS for this queue.
* Default: 60000

remote_queue.sqs_smartbus.large_message_store.endpoint = <URL>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The URL of the remote storage system supporting the S3 API.
* Use the scheme, either http or https, to enable or disable SSL connectivity
  with the endpoint.
* If not specified, the endpoint is constructed automatically based on the
  auth_region as follows: https://s3-<auth_region>.amazonaws.com
* If specified, the endpoint must match the effective auth_region, which is
  either a value specified via 'remote_queue.sqs_smartbus.auth_region' or a value
  constructed automatically based on the EC2 region of the running instance.
* Example: https://s3-us-west-2.amazonaws.com/
* Default: not set

remote_queue.sqs_smartbus.large_message_store.path = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The remote storage location where messages larger than the underlying
  queue's maximum message size will reside.
* The format for this value is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string for
    identifying a location inside the storage system.
* The following external systems are supported:
  * Object stores that support AWS's S3 protocol. These stores use the scheme
    "s3". For example, "path=s3://mybucket/some/path".
* If not specified, the queue drops messages exceeding the underlying queue's
  maximum message size.
* Default: not set

remote_queue.sqs_smartbus.send_interval = <number><unit>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* The interval that the remote queue output processor waits for data to
  arrive before sending a partial batch to the remote queue.
* Examples: 100ms, 5s
* Default: 2s

remote_queue.sqs_smartbus.max_queue_message_size = <integer>[KB|MB|GB]
* Currently not supported. This setting is related to a feature that is
  still under development.
* The maximum message size for batched events for upload to the remote queue.
* Queue messages contain a series of one or more events. When an event causes the message
  size to exceed this setting, the message is sent to the remote queue.
```

```
* Specify this value as an integer followed by KB, MB, or GB (for example,
  10MB is 10 megabytes)
* Default: 10MB

remote_queue.sqs_smartbus.enable_data_integrity_checks = <boolean>
* If "true", Splunk software sets the data checksum in the metadata field of
  the HTTP header during upload operation to S3.
* The checksum is used to verify the integrity of the data on uploads.
* Default: false

remote_queue.sqs_smartbus.enable_signed_payloads  = <boolean>
* If "true", Splunk software signs the payload during upload operation to S3.
* This setting is valid only for remote.s3.signature_version = v4
* Default: true

remote_queue.sqs_smartbus.executor_max_workers_count = <positive integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The maximum number of worker threads available per pipeline set to execute SQS output
  worker tasks.
* A value of 0 is equivalent to 1.
* The maximum value for this setting is 20.
* Default: 4

remote_queue.sqs_smartbus.executor_max_jobs_count = <positive integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The maximum number of jobs that each worker thread per pipeline set can queue.
* A value of 0 is equivalent to 1.
* The maximum value for this setting is 50.
* Default: 20

remote_queue.sqs_smartbus.large_message_store.encryption_scheme = sse-s3 | sse-c | none
* Currently not supported. This setting is related to a feature that is
  still under development.
* The encryption scheme used by remote storage
* Default: none.

remote_queue.sqs_smartbus.large_message_store.kms_endpoint = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The endpoint to connect to for generating KMS keys.
* This setting is required if 'large_message_store.encryption_scheme' is
  set to sse-c.
* Examples: https://kms.us-east-2.amazonaws.com
* No default.

remote_queue.sqs_smartbus.large_message_store.key_id = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The ID for the primary key that KMS uses to generate a data key pair. The primary key is stored in AWS.
* This setting is required if 'large_message_store.encryption_scheme' is
  set to sse-c.
* Examples: alias/sqsssekeytrial, 23456789-abcd-1234-11aa-c50f99011223
* No default.

remote_queue.sqs_smartbus.large_message_store.key_refresh_interval = <string>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The time interval to refresh primary key.
* Default: 24h
```

outputs.conf.example

```
#   Version 8.2.0
#
```

```
# This file contains an example outputs.conf.  Use this file to configure
# forwarding in a distributed set up.
#
# To use one or more of these configurations, copy the configuration block into
# outputs.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# Specify a target group for an IP:PORT which consists of a single receiver.
# This is the simplest possible configuration; it sends data to the host at
# 10.1.1.197 on port 9997.

[tcpout:group1]
server=10.1.1.197:9997


# Specify a target group for a hostname which consists of a single receiver.

[tcpout:group2]
server=myhost.Splunk.com:9997


# Specify a target group made up of two receivers.  In this case, the data will
# be distributed using AutoLB between these two receivers.  You can specify as
# many receivers as you wish here. You can combine host name and IP if you
# wish.
# NOTE: Do not use this configuration with SplunkLightForwarder.

[tcpout:group3]
server=myhost.Splunk.com:9997,10.1.1.197:6666


# You can override any of the global configuration values on a per-target group
# basis.  All target groups that do not override a global config will inherit
# the global config.

# Send every event to a receiver at foo.Splunk.com:9997 with a maximum queue
# size of 100,500 events.

[tcpout:group4]
server=foo.Splunk.com:9997
heartbeatFrequency=45
maxQueueSize=100500

# Send data to a receiving system that controls access by tokens.
# NOTE: token value is encrypted. Encryption is done by REST endpoint while saving.
[tcpout:group4]
server=foo.Splunk.com:9997
token=$1$/fRSBT+2APNAyCB7tlcgOyLnAtqAQFC8NI4TGA2wX4JHfN5d9g==

# Clone events to groups indexer1 and indexer2. Also, index all this data
# locally as well.

[tcpout]
indexAndForward=true

[tcpout:indexer1]
server=Y.Y.Y.Y:9997

[tcpout:indexer2]
server=X.X.X.X:6666


# Clone events between two data balanced groups.
```

```
[tcpout:indexer1]
server=A.A.A.A:1111, B.B.B.B:2222

[tcpout:indexer2]
server=C.C.C.C:3333, D.D.D.D:4444

# Syslout output configuration
# This example sends only events generated by the splunk daemon to a remote
# syslog host in syslog-compliant format:

[syslog:syslog-out1]
disabled = false
server = X.X.X.X:9099
type = tcp
priority = <34>
timestampformat = %b %e %H:%M:%S


# New in 4.0: Auto Load Balancing
#
# This example balances output between two indexers running on
# 1.2.3.4:4433 and 1.2.4.5:4433.
# To achieve this you'd create a DNS entry for splunkLB pointing
# to the two IP addresses of your indexers:
#
#   $ORIGIN example.com.
#   splunkLB A 1.2.3.4
#   splunkLB A 1.2.3.5

[tcpout]
defaultGroup = lb

[tcpout:lb]
server = splunkLB.example.com:4433

# Alternatively, you can autoLB sans DNS:

[tcpout]
defaultGroup = lb

[tcpout:lb]
server = 1.2.3.4:4433, 1.2.3.5:4433


# Compression
#
# This example sends compressed events to the remote indexer.
# NOTE: Compression can be enabled TCP or SSL outputs only.
# The receiver input port should also have compression enabled.

[tcpout]
server = splunkServer.example.com:4433
compressed = true


# SSL
#
# This example sends events to an indexer via SSL using splunk's
# self signed cert:

[tcpout]
server = splunkServer.example.com:4433
sslPassword = password
clientCert = $SPLUNK_HOME/etc/auth/server.pem

#
# The following example shows how to route events to syslog server
# This is similar to tcpout routing, but DEST_KEY is set to _SYSLOG_ROUTING
#
```

```
# 1. Edit $SPLUNK_HOME/etc/system/local/props.conf and set a TRANSFORMS-routing
#    attribute:
[default]
TRANSFORMS-routing=errorRouting

[syslog]
TRANSFORMS-routing=syslogRouting

# 2. Edit $SPLUNK_HOME/etc/system/local/transforms.conf and set errorRouting
#    and syslogRouting rules:
[errorRouting]
REGEX=error
DEST_KEY=_SYSLOG_ROUTING
FORMAT=errorGroup

[syslogRouting]
REGEX=.
DEST_KEY=_SYSLOG_ROUTING
FORMAT=syslogGroup

# 3. Edit $SPLUNK_HOME/etc/system/local/outputs.conf and set which syslog
#    outputs go to with servers or groups:
[syslog]
defaultGroup=everythingElseGroup

[syslog:syslogGroup]
server = 10.1.1.197:9997

[syslog:errorGroup]
server=10.1.1.200:9999

[syslog:everythingElseGroup]
server=10.1.1.250:6666

#
# Perform selective indexing and forwarding
#
# With a heavy forwarder only, you can index and store data locally, as well as
# forward the data onwards to a receiving indexer. There are two ways to do
# this:

# 1. In outputs.conf:
[tcpout]
defaultGroup = indexers

[indexAndForward]
index=true
selectiveIndexing=true

[tcpout:indexers]
server = 10.1.1.197:9997, 10.1.1.200:9997

# 2. In inputs.conf, Add _INDEX_AND_FORWARD_ROUTING for any data that you want
#    index locally, and
_TCP_ROUTING=<target_group> for data to be forwarded.

[monitor:///var/log/messages/]
_INDEX_AND_FORWARD_ROUTING=local

[monitor:///var/log/httpd/]
_TCP_ROUTING=indexers
```

passwords.conf

以下为 passwords.conf 的规范和示例文件。

passwords.conf.spec

```
#   Version 8.2.0
#
# This file maintains the credential information for a given app in Splunk Enterprise.
#
# There is no global, default passwords.conf. Instead, anytime a user creates
# a new user or edit a user onwards hitting the storage endpoint
# will create this passwords.conf file which gets replicated
# in a search head clustering enviornment.
# Note that passwords.conf is only created from 6.3.0 release.
#
# You must restart Splunk Enterprise to reload manual changes to passwords.conf.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[credential:<realm>:<username>:]

```
password = <password>
* The password that corresponds to the given username for the given realm.
* NOTE: The realm is optional.
* The password can be in clear text, however when saved from splunkd the
  password will always be encrypted.
```

passwords.conf.example

```
#   Version 8.2.0
#
# The following are example passwords.conf configurations. Configure properties for
# your custom application.
#
# There is NO DEFAULT passwords.conf. The file only gets created once you add/edit
# a credential information via the storage endpoint as follows.
#
# The POST request to add user1 credentials to the storage/password endpoint
# curl -k -u admin:changeme https://localhost:8089/servicesNS/nobody/search/storage/passwords -d name=user1 -d
password=changeme2
#
# The GET request to list all the credentials stored at the storage/passwords endpoint
# curl -k -u admin:changeme https://localhost:8089/services/storage/passwords
#
# To use one or more of these configurations, copy the configuration block into
# passwords.conf in $SPLUNK_HOME/etc/<apps>/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#

[credential::testuser:]
password = changeme
```

procmon-filters.conf

以下为 procmon-filters.conf 的规范和示例文件。

procmon-filters.conf.spec

```
#   Version 8.2.0
#
# *** DEPRECATED ***
#
#
# This file contains potential attribute/value pairs to use when configuring
# Windows registry monitoring. The procmon-filters.conf file contains the
# regular expressions you create to refine and filter the processes you want
# Splunk to monitor. You must restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

#### find out if this file is still being used.
```

[<stanza name>]

```
* The name of the filter being defined.

proc = <string>
* A regular expression that specifies process image that you want
  the Splunk platform to monitor.
* No default.

type = <string>
* A regular expression that specifies the type(s) of process events
  that you want the Splunk platform to monitor.
* No default

hive = <string>
* Not used in this context, but should always have value ".*"
```

procmon-filters.conf.example

```
#   Version 8.2.0
#
# This file contains example registry monitor filters. To create your own
# filter, use the information in procmon-filters.conf.spec.
#
# To use one or more of these configurations, copy the configuration block into
# procmon-filters.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[default]
hive = .*

[not-splunk-optimize]
proc = (?<!splunk-optimize.exe)$
type = create|exit|image
```

props.conf

以下为 props.conf 的规范和示例文件。

props.conf.spec

```
#   Version 8.2.0
#
# This file contains possible setting/value pairs for configuring Splunk
# software's processing properties through props.conf.
#
# Props.conf is commonly used for:
#
# * Configuring line breaking for multi-line events.
# * Setting up character set encoding.
# * Allowing processing of binary files.
# * Configuring timestamp recognition.
# * Configuring event segmentation.
# * Overriding automated host and source type matching. You can use
#   props.conf to:
#     * Configure advanced (regular expression-based) host and source
        type overrides.
#     * Override source type matching for data from a particular source.
#     * Set up rule-based source type recognition.
#     * Rename source types.
# * Anonymizing certain types of sensitive incoming data, such as credit
#   card or social security numbers, using sed scripts.
# * Routing specific events to a particular index, when you have multiple
#   indexes.
# * Creating new index-time field extractions, including header-based field
#   extractions.
#   NOTE: Do not add to the set of fields that are extracted
#         at index time unless it is absolutely necessary because there are
#         negative performance implications.
# * Defining new search-time field extractions. You can define basic
#   search-time field extractions entirely through props.conf, but a
#   transforms.conf component is required if you need to create search-time
#   field extractions that involve one or more of the following:
#       * Reuse of the same field-extracting regular expression across
#         multiple sources, source types, or hosts.
#       * Application of more than one regular expression (regex) to the
#         same source, source type, or host.
#       * Delimiter-based field extractions (they involve field-value pairs
#         that are separated by commas, colons, semicolons, bars, or
#         something similar).
#       * Extraction of multiple values for the same field (multivalued
#         field extraction).
#       * Extraction of fields with names that begin with numbers or
#         underscores.
# * Setting up lookup tables that look up fields from external sources.
# * Creating field aliases.
#
# NOTE: Several of the above actions involve a corresponding transforms.conf
# configuration.
#
# You can find more information on these topics by searching the Splunk
# documentation (http://docs.splunk.com/Documentation/Splunk).
#
# There is a props.conf in $SPLUNK_HOME/etc/system/default/.  To set custom
# configurations, place a props.conf in $SPLUNK_HOME/etc/system/local/. For
# help, see props.conf.example.
#
# You can enable configurations changes made to props.conf by typing the
# following search string in Splunk Web:
#
# | extract reload=T
#
# To learn more about configuration files (including precedence) see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# For more information about using props.conf in conjunction with
# distributed Splunk deployments, see the Distributed Deployment Manual.
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top
#     of the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file wins.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

[<spec>]
* This stanza enables properties for a given <spec>.
* A props.conf file can contain multiple stanzas for any number of
  different <spec>.
* Follow this stanza name with any number of the following setting/value
  pairs, as appropriate for what you want to do.
* If you do not set a setting for a given <spec>, the default is used.

<spec> can be:
1. <sourcetype>, the source type of an event.
2. host::<host>, where <host> is the host, or host-matching pattern, for an
                 event.
3. source::<source>, where <source> is the source, or source-matching
                     pattern, for an event.
4. rule::<rulename>, where <rulename> is a unique name of a source type
                     classification rule.
5. delayedrule::<rulename>, where <rulename> is a unique name of a delayed
                            source type classification rule.
                            These are only considered as a last resort
                            before generating a new source type based on the
                            source seen.

**[<spec>] stanza precedence:**

For settings that are specified in multiple categories of matching [<spec>]
stanzas, [host::<host>] settings override [<sourcetype>] settings.
Additionally, [source::<source>] settings override both [host::<host>]
and [<sourcetype>] settings.

**Considerations for Windows file paths:**

When you specify Windows-based file paths as part of a [source::<source>]
stanza, you must escape any backslashes contained within the specified file
path.

Example: [source::c:\\path_to\\file.txt]

**[<spec>] stanza patterns:**

When setting a [<spec>] stanza, you can use the following regex-type syntax:
... recurses through directories until the match is met
    or equivalently, matches any number of characters.
*   matches anything but the path separator 0 or more times.
    The path separator is '/' on unix, or '\' on Windows.
    Intended to match a partial or complete directory or filename.
|   is equivalent to 'or'
( ) are used to limit scope of |.
\\ = matches a literal backslash '\'.

Example: [source::....(?<!tar.)(gz|bz2)]

 This matches any file ending with '.gz' or '.bz2', provided this is not
 preceded by 'tar.', so tar.bz2 and tar.gz would not be matched.
```

```
**[source::<source>] and [host::<host>] stanza match language:**

Match expressions must match the entire name, not just a substring. Match
expressions are based on a full implementation of Perl-compatible regular
expressions (PCRE) with the translation of "...", "*", and "." Thus, "."
matches a period, "*" matches non-directory separators, and "..." matches
any number of any characters.

For more information search the Splunk documentation for "specify input
paths with wildcards".

**[<spec>] stanza pattern collisions:**

Suppose the source of a given input matches multiple [source::<source>]
patterns. If the [<spec>] stanzas for these patterns each supply distinct
settings, Splunk software applies all of these settings.

However, suppose two [<spec>] stanzas supply the same setting. In this case,
Splunk software chooses the value to apply based on the ASCII order of the
patterns in question.

For example, take this source:

    source::az

and the following colliding patterns:

    [source::...a...]
    sourcetype = a

    [source::...z...]
    sourcetype = z

In this case, the settings provided by the pattern [source::...a...] take
precedence over those provided by [source::...z...], and sourcetype ends up
with "a" as its value.

To override this default ASCII ordering, use the priority key:

    [source::...a...]
    sourcetype = a
    priority = 5

    [source::...z...]
    sourcetype = z
    priority = 10

Assigning a higher priority to the second stanza causes sourcetype to have
the value "z".

**Case-sensitivity for [<spec>] stanza matching:**

By default, [source::<source>] and [<sourcetype>] stanzas match in a
case-sensitive manner, while [host::<host>] stanzas match in a
case-insensitive manner. This is a convenient default, given that DNS names
are case-insensitive.

To force a [host::<host>] stanza to match in a case-sensitive manner use the
"(?-i)" option in its pattern.

For example:

    [host::foo]
    FIELDALIAS-a = a AS one

    [host::(?-i)bar]
    FIELDALIAS-b = b AS two

The first stanza actually applies to events with host values of "FOO" or
```

```
"Foo" . The second stanza, on the other hand, does not apply to events with
host values of "BAR" or "Bar".

**Building the final [<spec>] stanza:**

The final [<spec>] stanza is built by layering together (1) literal-matching
stanzas (stanzas which match the string literally) and (2) any
regex-matching stanzas, according to the value of the priority field.

If not specified, the default value of the priority key is:
* 0 for pattern-matching stanzas.
* 100 for literal-matching stanzas.

NOTE: Setting the priority key to a value greater than 100 causes the
pattern-matched [<spec>] stanzas to override the values of the
literal-matching [<spec>] stanzas.

The priority key can also be used to resolve collisions
between [<sourcetype>] patterns and [host::<host>] patterns. However, be aware
that the priority key does *not* affect precedence across <spec> types. For
example, [<spec>] stanzas with [source::<source>] patterns take priority over
stanzas with [host::<host>] and [<sourcetype>] patterns, regardless of their
respective priority key values.


#******************************************************************************
# The possible setting/value pairs for props.conf, and their
# default values, are:
#******************************************************************************

priority = <number>
* Overrides the default ASCII ordering of matching stanza names

# International characters and character encoding.

CHARSET = <string>
* When set, Splunk software assumes the input from the given [<spec>] is in
  the specified encoding.
* Can only be used as the basis of [<sourcetype>] or [source::<spec>],
  not [host::<spec>].
* A list of valid encodings can be retrieved using the command "iconv -l" on
  most *nix systems.
* If an invalid encoding is specified, a warning is logged during initial
  configuration and further input from that [<spec>] is discarded.
* If the source encoding is valid, but some characters from the [<spec>] are
  not valid in the specified encoding, then the characters are escaped as
  hex (for example, "\xF3").
* When set to "AUTO", Splunk software attempts to automatically determine the
  character encoding and convert text from that encoding to UTF-8.
* For a complete list of the character sets Splunk software automatically
  detects, see the online documentation.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default (on Windows machines): AUTO
* Default (otherwise): UTF-8
```

换行

```
# Use the following settings to define the length of a line.

TRUNCATE = <non-negative integer>
* The default maximum line length, in bytes.
* Although this is in bytes, line length is rounded down when this would
```

```
  otherwise land mid-character for multi-byte characters.
* Set to 0 if you never want truncation (very long lines are, however, often
  a sign of garbage data).
* Default: 10000

LINE_BREAKER = <regular expression>
* Specifies a regex that determines how the raw text stream is broken into
  initial events, before line merging takes place. (See the SHOULD_LINEMERGE
  setting, below.)
* The regex must contain a capturing group -- a pair of parentheses which
  defines an identified subcomponent of the match.
* Wherever the regex matches, Splunk software considers the start of the first
  capturing group to be the end of the previous event, and considers the end
  of the first capturing group to be the start of the next event.
* The contents of the first capturing group are discarded, and are not
  present in any event. You are telling Splunk software that this text comes
  between lines.
* NOTE: You get a significant boost to processing speed when you use
  LINE_BREAKER to delimit multi-line events (as opposed to using
  SHOULD_LINEMERGE to reassemble individual lines into multi-line events).
  * When using LINE_BREAKER to delimit events, SHOULD_LINEMERGE should be set
    to false, to ensure no further combination of delimited events occurs.
  * Using LINE_BREAKER to delimit events is discussed in more detail in the
    documentation. Search the documentation for "configure event line breaking"
    for details.
* Default: ([\r\n]+) (Data is broken into an event for each line,
  delimited by any number of carriage return or newline characters.)


** Special considerations for LINE_BREAKER with branched expressions  **

When using LINE_BREAKER with completely independent patterns separated by
pipes, some special issues come into play.
    EG. LINE_BREAKER = pattern1|pattern2|pattern3

NOTE: This is not about all forms of alternation. For instance, there is
nothing particularly special about
    example: LINE_BREAKER = ([\r\n])+(one|two|three)
where the top level remains a single expression.

CAUTION: Relying on these rules is NOT encouraged.  Simpler is better, in
both regular expressions and the complexity of the behavior they rely on.
If possible, reconstruct your regex to have a leftmost capturing group
that always matches.

It might be useful to use non-capturing groups if you need to express a group
before the text to discard.
    Example: LINE_BREAKER = (?:one|two)([\r\n]+)
    * This matches the text one, or two, followed by any amount of
      newlines or carriage returns.  The one-or-two group is non-capturing
      via the ?: prefix and is skipped by LINE_BREAKER.

* A branched expression can match without the first capturing group
  matching, so the line breaker behavior becomes more complex.
  Rules:
  1: If the first capturing group is part of a match, it is considered the
     linebreak, as normal.
  2: If the first capturing group is not part of a match, the leftmost
     capturing group which is part of a match is considered the linebreak.
  3: If no capturing group is part of the match, the linebreaker assumes
     that the linebreak is a zero-length break immediately preceding the match.

Example 1:  LINE_BREAKER = end(\n)begin|end2(\n)begin2|begin3

  * A line ending with 'end' followed a line beginning with 'begin' would
    match the first branch, and the first capturing group would have a match
    according to rule 1.  That particular newline would become a break
    between lines.
  * A line ending with 'end2' followed by a line beginning with 'begin2'
```

```
    would match the second branch and the second capturing group would have
    a match.  That second capturing group would become the linebreak
    according to rule 2, and the associated newline would become a break
    between lines.
  * The text 'begin3' anywhere in the file at all would match the third
    branch, and there would be no capturing group with a match.  A linebreak
    would be assumed immediately prior to the text 'begin3' so a linebreak
    would be inserted prior to this text in accordance with rule 3.  This
    means that a linebreak occurs before the text 'begin3' at any
    point in the text, whether a linebreak character exists or not.

Example 2: Example 1 would probably be better written as follows.  This is
           not equivalent for all possible files, but for most real files
           would be equivalent.

           LINE_BREAKER = end2?(\n)begin(2|3)?

LINE_BREAKER_LOOKBEHIND = <integer>
* The number of bytes before the end of the raw data chunk
  to which Splunk software should apply the 'LINE_BREAKER' regex.
* When there is leftover data from a previous raw chunk,
  LINE_BREAKER_LOOKBEHIND indicates the number of bytes before the end of
  the raw chunk (with the next chunk concatenated) where Splunk software
  applies the LINE_BREAKER regex.
* You might want to increase this value from its default if you are
  dealing with especially large or multi-line events.
* Default: 100

# Use the following settings to specify how multi-line events are handled.

SHOULD_LINEMERGE = <boolean>
* Whether or not to combine several lines of data into a single
  multiline event, based on the configuration settings listed in
  this subsection.
* When you set this to "true", Splunk software combines several lines of data
  into a single multi-line event, based on values you configure
  in the following settings.
* When you set this to "false", Splunk software does not combine lines of
  data into multiline events.
* Default: true

# When SHOULD_LINEMERGE is set to true, use the following settings to
# define how Splunk software builds multi-line events.

BREAK_ONLY_BEFORE_DATE = <boolean>
* Whether or not to create a new event if a new line with a date is encountered
  in the data stream.
* When you set this to "true", Splunk software creates a new event only if it
  encounters a new line with a date.
  * NOTE: When using DATETIME_CONFIG = CURRENT or NONE, this setting is not
    meaningful, as timestamps are not identified.
* Default: true

BREAK_ONLY_BEFORE = <regular expression>
* When set, Splunk software creates a new event only if it encounters a new
  line that matches the regular expression.
* Default: empty string

MUST_BREAK_AFTER = <regular expression>
* When set, Splunk software creates a new event for the next input line only
  if the regular expression matches the current line.
* It is possible for the software to break before the current line if
  another rule matches.
* Default: empty string

MUST_NOT_BREAK_AFTER = <regular expression>
* When set, and the current line matches the regular expression, Splunk software
  does not break on any subsequent lines until the MUST_BREAK_AFTER expression
  matches.
```

```
* Default: empty string

MUST_NOT_BREAK_BEFORE = <regular expression>
* When set, and the current line matches the regular expression, Splunk
  software does not break the last event before the current line.
* Default: empty string

MAX_EVENTS = <integer>
* The maximum number of input lines to add to any event.
* Splunk software breaks after it reads the specified number of lines.
* Default: 256

# Use the following settings to handle better load balancing from UF.
# NOTE: The EVENT_BREAKER properties are applicable for Splunk Universal
# Forwarder instances only.

EVENT_BREAKER_ENABLE = <boolean>
* Whether or not a universal forwarder (UF) uses the 'ChunkedLBProcessor'
  data processor to improve distribution of events to receiving
  indexers for a given source type.
* When set to true, a UF splits incoming data with a
  light-weight chunked line breaking processor ('ChunkedLBProcessor')
  so that data is distributed fairly evenly amongst multiple indexers.
* When set to false, a UF uses standard load-balancing methods to
  send events to indexers.
* Use this setting on a UF to indicate that data
  should be split on event boundaries across indexers, especially
  for large files.
* This setting is only valid on universal forwarder instances.
* Default: false

# Use the following to define event boundaries for multi-line events
# For single-line events, the default settings should suffice

EVENT_BREAKER = <regular expression>
* A regular expression that specifies the event boundary for a
  universal forwarder to use to determine when it can send events
  to an indexer.
* The regular expression must contain a capturing group
  (a pair of parentheses that defines an identified sub-component
  of the match.)
* When the UF finds a match, it considers the first capturing group
  to be the end of the previous event, and the end of the capturing group
  to be the beginning of the next event.
* At this point, the forwarder can then change the receiving indexer
  based on these event boundaries.
* This setting is only active if you set 'EVENT_BREAKER_ENABLE' to
  "true", only works on universal forwarders, and
  works best with multiline events.
* Default: "([\r\n]+)"

LB_CHUNK_BREAKER = <regular expression>
* A regular expression that specifies the event boundary for a
  universal forwarder to use to determine when it can send events
  to an indexer.
* The regular expression must contain a capturing group
  (a pair of parentheses that defines an identified sub-component
  of the match.)
* When the UF finds a match, it considers the first capturing group
  to be the end of the previous event, and the end of the capturing group
  to be the beginning of the next event.
* Splunk software discards the contents of the first capturing group.
  This content will not be present in any event, as Splunk software
  considers this text to come between lines.
* At this point, the forwarder can then change the receiving indexer
  based on these event boundaries.
* This is only used if [httpout] is configured in outputs.conf
* Default: ([\r\n]+)
```

```
LB_CHUNK_BREAKER_TRUNCATE = <non-negative integer>
* The maximum length of data chunk sent by LB_CHUNK_BREAKER, in bytes.
* Although this is in bytes, length is rounded down when this would
  otherwise land mid-character for multi-byte characters.
* Default: 2000000
```

时间戳提取配置

```
DATETIME_CONFIG = [<filename relative to $SPLUNK_HOME> | CURRENT | NONE]
* Specifies which file configures the timestamp extractor, which identifies
  timestamps from the event text.
* This setting may also be set to "NONE" to prevent the timestamp
  extractor from running or "CURRENT" to assign the current system time to
  each event.
  * "CURRENT" sets the time of the event to the time that the event was
    merged from lines, or worded differently, the time it passed through the
    aggregator processor.
  * "NONE" leaves the event time set to whatever time was selected by
    the input layer
    * For data sent by Splunk forwarders over the Splunk-to-Splunk protocol,
      the input layer is the time that was selected on the forwarder by
      its input behavior (as below).
    * For file-based inputs (monitor, batch) the time chosen is the
      modification timestamp on the file being read.
    * For other inputs, the time chosen is the current system time when
      the event is read from the pipe/socket/etc.
  * Both "CURRENT" and "NONE" explicitly disable the per-text timestamp
    identification, so the default event boundary detection
    (BREAK_ONLY_BEFORE_DATE = true) is likely to not work as desired.  When
    using these settings, use 'SHOULD_LINEMERGE' and/or the 'BREAK_ONLY_*' ,
    'MUST_BREAK_*' settings to control event merging.
* For more information on 'DATETIME_CONFIG' and datetime.xml, see "Configure
  advanced timestamp recognition with datetime.xml" in the Splunk Documentation.
* Default: /etc/datetime.xml (for example, $SPLUNK_HOME/etc/datetime.xml).

TIME_PREFIX = <regular expression>
* If set, Splunk software scans the event text for a match for this regex
  in event text before attempting to extract a timestamp.
* The timestamping algorithm only looks for a timestamp in the text
  following the end of the first regex match.
* For example, if 'TIME_PREFIX' is set to "abc123", only text following the
  first occurrence of the text abc123 is used for timestamp extraction.
* If the 'TIME_PREFIX' cannot be found in the event text, timestamp extraction
  does not occur.
* Default: empty string

MAX_TIMESTAMP_LOOKAHEAD = <integer>
* The number of characters into an event Splunk software should look
  for a timestamp.
* This constraint to timestamp extraction is applied from the point of the
  'TIME_PREFIX'-set location.
* For example, if 'TIME_PREFIX' positions a location 11 characters into the
  event, and MAX_TIMESTAMP_LOOKAHEAD is set to 10, timestamp extraction is
  constrained to characters 11 through 20.
* If set to 0 or -1, the length constraint for timestamp recognition is
  effectively disabled. This can have negative performance implications
  which scale with the length of input lines (or with event size when
  'LINE_BREAKER' is redefined for event splitting).
* Default: 128

TIME_FORMAT = <strptime-style format>
* Specifies a "strptime" format string to extract the date.
* "strptime" is an industry standard for designating time formats.
* For more information on strptime, see "Configure timestamp recognition" in
  the online documentation.
```

```
* TIME_FORMAT starts reading after the TIME_PREFIX. If both are specified,
  the TIME_PREFIX regex must match up to and including the character before
  the TIME_FORMAT date.
* For good results, the <strptime-style format> should describe the day of
  the year and the time of day.
* Default: empty string

DETERMINE_TIMESTAMP_DATE_WITH_SYSTEM_TIME = <boolean>
* Whether or not the Splunk platform uses the current system time to
  determine the date of an event timestamp that has no date.
* If set to "true", the platform uses the system time to determine the
  date for an event that has a timestamp without a date.
  * If the future event has a timestamp that is less than three hours
    later than the current system time, then the platform presumes
    that the timestamp date for that event is the current date.
  * Otherwise, it presumes that the timestamp date is in the future, and
    uses the previous day's date instead.
* If set to "false", the platform uses the last successfully-parsed
  timestamp to determine the timestamp date for the event.
* Default: false

TZ = <timezone identifier>
* The algorithm for determining the time zone for a particular event is as
  follows:
  * If the event has a timezone in its raw text (for example, UTC, -08:00),
  use that.
  * If TZ is set to a valid timezone string, use that.
  * If the event was forwarded, and the forwarder-indexer connection uses
  the version 6.0 and higher forwarding protocol, use the timezone provided
  by the forwarder.
  * Otherwise, use the timezone of the system that is running splunkd.
* Default: empty string

TZ_ALIAS = <key=value>[,<key=value>]...
* Provides Splunk software admin-level control over how timezone strings
  extracted from events are interpreted.
  * For example, EST can mean Eastern (US) Standard time, or Eastern
    (Australian) Standard time.  There are many other three letter timezone
    acronyms with many expansions.
* There is no requirement to use 'TZ_ALIAS' if the traditional Splunk software
  default mappings for these values have been as expected. For example, EST
  maps to the Eastern US by default.
* Has no effect on the 'TZ' value. This only affects timezone strings from event
  text, either from any configured 'TIME_FORMAT', or from pattern-based guess
  fallback.
* The setting is a list of key=value pairs, separated by commas.
  * The key is matched against the text of the timezone specifier of the
    event, and the value is the timezone specifier to use when mapping the
    timestamp to UTC/GMT.
  * The value is another TZ specifier which expresses the desired offset.
  * Example: TZ_ALIAS = EST=GMT+10:00 (See props.conf.example for more/full
    examples)
* Default: not set

MAX_DAYS_AGO = <integer>
* The maximum number of days in the past, from the current date as
  provided by the input layer (For example forwarder current time, or modtime
  for files), that an extracted date can be valid.
* Splunk software still indexes events with dates older than 'MAX_DAYS_AGO'
  with the timestamp of the last acceptable event.
* If no such acceptable event exists, new events with timestamps older
  than 'MAX_DAYS_AGO' uses the current timestamp.
* For example, if MAX_DAYS_AGO = 10, Splunk software applies the timestamp
  of the last acceptable event to events with extracted timestamps older
  than 10 days in the past. If no acceptable event exists, Splunk software
  applies the current timestamp.
* If your data is older than 2000 days, increase this setting.
* Highest legal value: 10951 (30 years).
* Default: 2000 (5.48 years).
```

```
MAX_DAYS_HENCE = <integer>
* The maximum number of days in the future, from the current date as
  provided by the input layer(For e.g. forwarder current time, or
  modtime for files), that an extracted date can be valid.
* Splunk software still indexes events with dates more than 'MAX_DAYS_HENCE'
  in the future with the timestamp of the last acceptable event.
* If no such acceptable event exists, new events
  with timestamps after 'MAX_DAYS_HENCE' use the current timestamp.
* For example, if MAX_DAYS_HENCE = 3, Splunk software applies the timestamp of
  the last acceptable event to events with extracted timestamps more than 3
  days in the future. If no acceptable event exists, Splunk software applies
  the current timestamp.
* The default value includes dates from one day in the future.
* If your servers have the wrong date set or are in a timezone that is one
  day ahead, increase this value to at least 3.
* NOTE: False positives are less likely with a smaller window. Change with
  caution.
* Highest legal value: 10950 (30 years).
* Default: 2

MAX_DIFF_SECS_AGO = <integer>
* This setting prevents Splunk software from rejecting events with timestamps
  that are out of order.
* Do not use this setting to filter events. Splunk software uses
  complicated heuristics for time parsing.
* Splunk software warns you if an event timestamp is more than
  'MAX_DIFF_SECS_AGO' seconds BEFORE the previous timestamp and does not
  have the same time format as the majority of timestamps from the source.
* After Splunk software throws the warning, it only rejects an event if it
  cannot apply a timestamp to the event. (For example, if Splunk software
  cannot recognize the time of the event.)
* If your timestamps are wildly out of order, consider increasing
  this value.
* NOTE: If the events contain time but not date (date determined another way,
  such as from a filename) this check only considers the hour. (No one
  second granularity for this purpose.)
* Highest legal value: 2147483646 (68.1 years).
* Defaults: 3600 (one hour).

MAX_DIFF_SECS_HENCE = <integer>
* This setting prevents Splunk software from rejecting events with timestamps
  that are out of order.
* Do not use this setting to filter events. Splunk software uses
  complicated heuristics for time parsing.
* Splunk software warns you if an event timestamp is more than
  'MAX_DIFF_SECS_HENCE' seconds AFTER the previous timestamp and does not
  have the same time format as the majority of timestamps from the source.
* After Splunk software throws the warning, it only rejects an event if it
  cannot apply a timestamp to the event. (For example, if Splunk software
  cannot recognize the time of the event.)
* If your timestamps are wildly out of order, or you have logs that
  are written less than once a week, consider increasing this value.
* Highest legal value: 2147483646 (68.1 years).
* Default: 604800 (one week).

ADD_EXTRA_TIME_FIELDS = [none | subseconds | all | <boolean>]
* Whether or not Splunk software automatically generates and indexes the
  following keys with events:
  * date_hour, date_mday, date_minute, date_month, date_second, date_wday,
    date_year, date_zone, timestartpos, timeendpos, timestamp.
* These fields are never required, and may be turned off as desired.
* If set to "none" (or false), all indextime data about the timestamp is
  stripped out. This removes the above fields but also removes information
  about the sub-second timestamp granularity. When events are searched,
  only the second-granularity timestamp is returned as part of the
  "_time" field.
* If set to "subseconds", the above fields are stripped out but the data about
  subsecond timestamp granularity is left intact.
```

```
* If set to "all" (or true), all of the indextime fields from the time
  parser are included.
* Default: true (Enabled for most data sources.)
```

结构化数据头提取和配置

```
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.

# These special string delimiters, which are single ASCII characters,
# can be used in the settings that follow, which state
# "You can use the delimiters for structured data header extraction with
# this setting."
#
# You can only use a single delimiter for any setting.
# It is not possible to configure multiple delimiters or characters per
# setting.
#
# Example of using the delimiters:
#
# FIELD_DELIMITER=space
# * Tells Splunk software to use the space character to separate fields
# in the specified source.
# space           - Space separator (separates on a single space)
# tab / \t        - Tab separator
# fs              - ASCII file separator
# gs              - ASCII group separator
# rs              - ASCII record separator
# us              - ASCII unit separator
#\xHH             - HH is two heaxadecimal digits to use as a separator
                    Example : \x14 - select 0x14 as delimiter
# none            - (Valid for FIELD_QUOTE and HEADER_FIELD_QUOTE only)
                    null termination character separator
# whitespace / ws - (Valid for FIELD_DELIMITER and
                    HEADER_FIELD_DELIMITER only)
                    treats any number of spaces and tabs as a
                    single delimiter

INDEXED_EXTRACTIONS = <CSV|TSV|PSV|W3C|JSON|HEC>
* The type of file that Splunk software should expect for a given source
  type, and the extraction and/or parsing method that should be used on the file.
* The following values are valid for 'INDEXED_EXTRACTIONS':
  CSV  - Comma separated value format
  TSV  - Tab-separated value format
  PSV  - pipe ("|")-separated value format
  W3C  - World Wide Web Consortium (W3C) Extended Log File Format
  JSON - JavaScript Object Notation format
  HEC  - Interpret file as a stream of JSON events in the same format
         as the HTTP Event Collector (HEC) input.
* These settings change the defaults for other settings in this subsection
  to appropriate values, specifically for these formats.
* The HEC format lets events overide many details on a per-event basis, such
  as the destination index. Use this value to read data which you know to be
  well-formatted and safe to index with little or no processing, such as
  data generated by locally written tools.
* Default: not set

METRICS_PROTOCOL = <STATSD|COLLECTD_HTTP>
* Which protocol the incoming metric data is using:
  STATSD:        Supports the statsd protocol, in the following format:
                 <metric name>:<value>|<metric type>
                 Use the 'STATSD-DIM-TRANSFORMS' setting to manually extract
                 dimensions for the above format. Splunk software auto-extracts
                 dimensions when the data has "#" as dimension delimiter
                 as shown below:
                 <metric name>:<value>|<metric type>|#<dim1>:<val1>,
                 <dim2>:<val2>...
  COLLECTD_HTTP: This is data from the write_http collectd plugin being parsed
                 as streaming JSON docs with the _value living in "values" array
                 and the dimension names in "dsnames" and the metric type
                 (for example, counter vs gauge) is derived from "dstypes".
* Default (for event (non-metric) data): not set

STATSD-DIM-TRANSFORMS = <statsd_dim_stanza_name1>,<statsd_dim_stanza_name2>..
* Valid only when 'METRICS_PROTOCOL' is set to "statsd".
* A comma separated list of transforms stanza names which are used to extract
  dimensions from statsd metric data.
* Optional for sourcetypes which have only one transforms stanza for extracting
  dimensions, and the stanza name is the same as that of sourcetype name.
* Stanza names must start with prefix "statsd-dims:"
  For example, in props.conf:

        STATSD-DIM-TRANSFORMS = statsd-dims:extract_ip

  In transforms.conf, stanza should be prefixed also as so:

        [statsd-dims:extract_ip]

* Default: not set

STATSD_EMIT_SINGLE_MEASUREMENT_FORMAT = <boolean>
* Valid only when 'METRICS_PROTOCOL' is set to 'statsd'.
* This setting controls the metric data point format emitted by the statsd
  processor.
* When set to true, the statsd processor produces metric data points in
  single-measurement format. This format allows only one metric measurement per
  data point, with one key-value pair for the metric name
  (metric_name=<metric_name>) and another key-value pair for the measurement
  value (_value=<numerical_value>).
* When set to false, the statsd processor produces metric data points in
  multiple-measurement format. This format allows multiple metric measurements
  per data point, where each metric measurement follows this syntax:
  metric_name:<metric_name>=<numerical_value>
* We recommend you set this to 'true' for statsd data, because the statsd data
  format is single-measurement per data point. This practice enables you to use
  downstream transforms to edit the metric_name if necessary. Multiple-value
  metric data points are harder to process with downstream transforms.
* Default: true

METRIC-SCHEMA-TRANSFORMS = <metric-schema:stanza_name>[,<metric-schema:stanza_name>]...
* A comma-separated list of metric-schema stanza names from transforms.conf
  that the Splunk platform uses to create multiple metrics from index-time
  field extractions of a single log event.
* NOTE: This setting is valid only for index-time field extractions.
  You can set up the TRANSFORMS field extraction configuration to create
  index-time field extractions. The Splunk platform always applies
  METRIC-SCHEMA-TRANSFORMS after index-time field extraction takes place.
* Optional.
* Default: empty

PREAMBLE_REGEX = <regex>
* A regular expression that lets Splunk software ignore "preamble lines",
  or lines that occur before lines that represent structured data.
* When set, Splunk software ignores these preamble lines,
  based on the pattern you specify.
* Default: not set

FIELD_HEADER_REGEX = <regex>
* A regular expression that specifies a pattern for prefixed headers.
* The actual header starts after the pattern. It is not included in
  the header field.
* This setting supports the use of the special characters described above.
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

HEADER_FIELD_LINE_NUMBER = <integer>
* The line number of the line within the specified file or source that
  contains the header fields.
* If set to 0, Splunk software attempts to
  locate the header fields within the file automatically.
* Default: 0

FIELD_DELIMITER = <character>
* Which character delimits or separates fields in the
  specified file or source.
* You can use the delimiters for structured data header extraction with
  this setting.
* This setting supports the use of the special characters described above.
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

HEADER_FIELD_DELIMITER = <character>
* Which character delimits or separates header fields in
  the specified file or source.
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

HEADER_FIELD_ACCEPTABLE_SPECIAL_CHARACTERS = <string>
* This setting specifies the special characters that are allowed in header
  fields.
* When this setting is not set, the processor replaces all characters in header
  field names that are neither alphanumeric or a space (" ") with underscores.
  * For example, if you import a CSV file, and one of the header field names is
    "field.name", the processor replaces "field.name" with "field_name", and
    imports the field this way.
* If you configure this setting, the processor does not perform a character
  replacement in header field names if the special character it encounters
  matches one that you specify in the setting value.
  * For example, if you configure this setting to ".", the processor does not
    replace the "." characters in header field names with underscores.
* This setting only supports characters with ASCII codes below 128.
* CAUTION: Certain special characters can cause the Splunk instance to
  malfunction.
  * For example, the field name "fieldname=a" is currently sanitized to
    "fieldname_a" and the search query "fieldname_a=val" works fine. If the
    setting is set to "=" and the field name "fieldname=a" is allowed, it could
    result in an invalid-syntax search query "fieldname=a=val".
* Default: empty string

FIELD_QUOTE = <character>
* The character to use for quotes in the specified file
  or source.
* You can use the delimiters for structured data header extraction with
  this setting.
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

HEADER_FIELD_QUOTE = <character>
* The character to use for quotes in the header of the
  specified file or source.
* You can use the delimiters for structured data header extraction with
  this setting.
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

TIMESTAMP_FIELDS = [ <string>,..., <string>]
* Some CSV and structured files have their timestamp encompass multiple
  fields in the event separated by delimiters.
* This setting tells Splunk software to specify all such fields which
  constitute the timestamp in a comma-separated fashion.
* If not specified, Splunk software tries to automatically extract the
  timestamp of the event.
```

```
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

FIELD_NAMES = [ <string>,..., <string>]
* Some CSV and structured files might have missing headers.
* This setting tells Splunk software to specify the header field names directly.
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

MISSING_VALUE_REGEX = <regex>
* The placeholder to use in events where no value is present.
* The default can vary if 'INDEXED_EXTRACTIONS' is set.
* Default (if 'INDEXED_EXTRACTIONS' is not set): not set

JSON_TRIM_BRACES_IN_ARRAY_NAMES = <boolean>
* Whether or not the JSON parser for 'INDEXED_EXTRACTIONS' strips curly
  braces from names of fields that are defined as arrays in JSON events.
* When the JSON parser extracts fields from JSON events, by default, it
  extracts array field names with the curly braces that indicate they
  are arrays ("{}") intact.
* For example, given the following partial JSON event:
    {"datetime":"08-20-2015 10:32:25.267 -0700","log_level":"INFO",...,
      data:{...,"fs_type":"ext4","mount_point":["/disk48","/disk22"],...}}

  Because the "mount_point" field in this event is an array of two
  values ("/disk48" and "/disk22"), the JSON parser sees the field as an
  array, and extracts it as such, including the braces that identify
  it as an array. The resulting field name is "data.mount_point{}").
* Set 'JSON_TRIM_BRACES_IN_ARRAY_NAMES' to "true" if you want the JSON
  parser to strip these curly braces from array field names. (In this
  example, the resulting field is instead "data.mount_point").
* CAUTION: Setting this to "true" makes array field names that are extracted
  at index time through the JSON parser inconsistent with search-time
  extraction of array field names through the 'spath' search command.
* Default: false
```

字段提取配置

```
NOTE: If this is your first time configuring field extractions in
      props.conf, review the following information first. Additional
      information is also available in the Getting Data In Manual
      in the Splunk Documentation.

There are three different "field extraction types" that you can use to
configure field extractions: TRANSFORMS, REPORT, and EXTRACT. They differ in
two significant ways: 1) whether they create indexed fields (fields
extracted at index time) or extracted fields (fields extracted at search
time), and 2), whether they include a reference to an additional component
called a "field transform," which you define separately in transforms.conf.

**Field extraction configuration: index time versus search time**

Use the TRANSFORMS field extraction type to create index-time field
extractions. Use the REPORT or EXTRACT field extraction types to create
search-time field extractions.

NOTE: Index-time field extractions have performance implications.
      Create additions to the default set of indexed fields ONLY
      in specific circumstances. Whenever possible, extract
      fields only at search time.

There are times when you may find that you need to change or add to your set
of indexed fields. For example, you may have situations where certain
search-time field extractions are noticeably impacting search performance.
This can happen when the value of a search-time extracted field exists
```

```
outside of the field more often than not. For example, if you commonly
search a large event set with the expression company_id=1 but the value 1
occurs in many events that do *not* have company_id=1, you may want to add
company_id to the list of fields extracted by Splunk software at index time.
This is because at search time, Splunk software checks each
instance of the value 1 to see if it matches company_id, and that kind of
thing slows down performance when you have Splunk searching a large set of
data.

Conversely, if you commonly search a large event set with expressions like
company_id!=1 or NOT company_id=1, and the field company_id nearly *always*
takes on the value 1, you may want to add company_id to the list of fields
extracted by Splunk software at index time.

For more information about index-time field extraction, search the
documentation for "index-time extraction." For more information about
search-time field extraction, search the documentation for
"search-time extraction."

**Field extraction configuration: field transforms vs. "inline" (props.conf only) configs**

The TRANSFORMS and REPORT field extraction types reference an additional
component called a field transform, which you define separately in
transforms.conf. Field transforms contain a field-extracting regular
expression and other settings that govern the way that the transform
extracts fields. Field transforms are always created in conjunction with
field extraction stanzas in props.conf; they do not stand alone.

The EXTRACT field extraction type is considered to be "inline," which means
that it does not reference a field transform. It contains the regular
expression that Splunk software uses to extract fields at search time. You
can use EXTRACT to define a field extraction entirely within props.conf, no
transforms.conf component is required.

**Search-time field extractions: Why use REPORT if EXTRACT will do?**

This is a good question. And much of the time, EXTRACT is all you need for
search-time field extraction. But when you build search-time field
extractions, there are specific cases that require the use of REPORT and the
field transform that it references. Use REPORT if you want to:

* Reuse the same field-extracting regular expression across multiple
  sources, source types, or hosts. If you find yourself using the same regex
  to extract fields across several different sources, source types, and
  hosts, set it up as a transform, and then reference it in REPORT
  extractions in those stanzas. If you need to update the regex you only
  have to do it in one place. Handy!
* Apply more than one field-extracting regular expression to the same
  source, source type, or host. This can be necessary in cases where the
  field or fields that you want to extract from a particular source, source
  type, or host appear in two or more very different event patterns.
* Set up delimiter-based field extractions. Useful if your event data
  presents field-value pairs (or just field values) separated by delimiters
  such as commas, spaces, bars, and so on.
* Configure extractions for multivalued fields. You can have Splunk software
  append additional values to a field as it finds them in the event data.
* Extract fields with names beginning with numbers or underscores.
  Ordinarily, the key cleaning functionality removes leading numeric
  characters and underscores from field names. If you need to keep them,
  configure your field transform to turn key cleaning off.
* Manage formatting of extracted fields, in cases where you are extracting
  multiple fields, or are extracting both the field name and field value.

**Precedence rules for TRANSFORMS, REPORT, and EXTRACT field extraction types**

* For each field extraction, Splunk software takes the configuration from the
  highest precedence configuration stanza (see precedence rules at the
  beginning of this file).
* If a particular field extraction is specified for a source and a source
```

```
  type, the field extraction for source wins out.
* Similarly, if a particular field extraction is specified in ../local/ for
  a <spec>, it overrides that field extraction in ../default/.


TRANSFORMS-<class> = <transform_stanza_name>, <transform_stanza_name2>,...
* Used for creating indexed fields (index-time field extractions).
* <class> is a unique literal string that identifies the namespace of the
  field you're extracting.
  **Note:** <class> values do not have to follow field name syntax
  restrictions. You can use characters other than a-z, A-Z, and 0-9, and
  spaces are allowed. <class> values are not subject to key cleaning.
* <transform_stanza_name> is the name of your stanza from transforms.conf.
* Use a comma-separated list to apply multiple transform stanzas to a single
  TRANSFORMS extraction. Splunk software applies them in the list order. For
  example, this sequence ensures that the [yellow] transform stanza gets
  applied first, then [blue], and then [red]:
        [source::color_logs]
        TRANSFORMS-colorchange = yellow, blue, red

REPORT-<class> = <transform_stanza_name>, <transform_stanza_name2>,...
* Used for creating extracted fields (search-time field extractions) that
  reference one or more transforms.conf stanzas.
* <class> is a unique literal string that identifies the namespace of the
  field you're extracting.
  NOTE: <class> values do not have to follow field name syntax
  restrictions. You can use characters other than a-z, A-Z, and 0-9, and
  spaces are allowed. <class> values are not subject to key cleaning.
* <transform_stanza_name> is the name of your stanza from transforms.conf.
* Use a comma-separated list to apply multiple transform stanzas to a single
  REPORT extraction.
  Splunk software applies them in the list order. For example, this sequence
  insures that the [yellow] transform stanza gets applied first, then [blue],
  and then [red]:
    [source::color_logs]
    REPORT-colorchange = yellow, blue, red

EXTRACT-<class> = [<regex>|<regex> in <src_field>]
* Used to create extracted fields (search-time field extractions) that do
  not reference transforms.conf stanzas.
* Performs a regex-based field extraction from the value of the source
  field.
* <class> is a unique literal string that identifies the namespace of the
  field you're extracting.
  NOTE: <class> values do not have to follow field name syntax
  restrictions. You can use characters other than a-z, A-Z, and 0-9, and
  spaces are allowed. <class> values are not subject to key cleaning.
* The <regex> is required to have named capturing groups. When the <regex>
  matches, the named capturing groups and their values are added to the
  event.
* dotall (?s) and multi-line (?m) modifiers are added in front of the regex.
  So internally, the regex becomes (?ms)<regex>.
* Use '<regex> in <src_field>' to match the regex against the values of a
  specific field.  Otherwise it just matches against _raw (all raw event
  data).
* NOTE: <src_field> has the following restrictions:
  * It can only contain alphanumeric characters and underscore
    (a-z, A-Z, 0-9, and _).
  * It must already exist as a field that has either been extracted at
    index time or has been derived from an EXTRACT-<class> configuration
    whose <class> ASCII value is *higher* than the configuration in which
    you are attempting to extract the field. For example, if you
    have an EXTRACT-ZZZ configuration that extracts <src_field>, then
    you can only use 'in <src_field>' in an EXTRACT configuration with
    a <class> of 'aaa' or lower, as 'aaa' is lower in ASCII value
    than 'ZZZ'.
  * It cannot be a field that has been derived from a transform field
    extraction (REPORT-<class>), an automatic key-value field extraction
    (in which you configure the KV_MODE setting to be something other
    than 'none'), a field alias, a calculated field, or a lookup,
    as these operations occur after inline field extractions (EXTRACT-
    <class>) in the search-time operations sequence.
* If your regex needs to end with 'in <string>' where <string> is *not* a
  field name, change the regex to end with '[i]n <string>' to ensure that
  Splunk software doesn't try to match <string> to a field name.

KV_MODE = [none|auto|auto_escaped|multi|json|xml]
* Used for search-time field extractions only.
* Specifies the field/value extraction mode for the data.
* Set KV_MODE to one of the following:
  * none: if you want no field/value extraction to take place.
  * auto: extracts field/value pairs separated by equal signs.
  * auto_escaped: extracts fields/value pairs separated by equal signs and
                  honors \" and \\ as escaped sequences within quoted
                  values, e.g field="value with \"nested\" quotes"
  * multi: invokes the multikv search command to expand a tabular event into
           multiple events.
  * xml : automatically extracts fields from XML data.
  * json: automatically extracts fields from JSON data.
* Setting to 'none' can ensure that one or more user-created regexes are not
  overridden by automatic field/value extraction for a particular host,
  source, or source type, and also increases search performance.
* The 'xml' and 'json' modes do not extract any fields when used on data
  that isn't of the correct format (JSON or XML).
* Default: auto

MATCH_LIMIT = <integer>
* Only set in props.conf for EXTRACT type field extractions.
  For REPORT and TRANSFORMS field extractions, set this in transforms.conf.
* Optional. Limits the amount of resources spent by PCRE
  when running patterns that do not match.
* Use this to set an upper bound on how many times PCRE calls an internal
  function, match(). If set too low, PCRE may fail to correctly match a pattern.
* Default: 100000

DEPTH_LIMIT = <integer>
* Only set in props.conf for EXTRACT type field extractions.
  For REPORT and TRANSFORMS field extractions, set this in transforms.conf.
* Optional. Limits the amount of resources spent by PCRE
  when running patterns that do not match.
* Use this to limit the depth of nested backtracking in an internal PCRE
  function, match(). If set too low, PCRE might fail to correctly
  match a pattern.
* Default: 1000

AUTO_KV_JSON = <boolean>
* Used for search-time field extractions only.
* Specifies whether to try json extraction automatically.
* Default: true

KV_TRIM_SPACES = <boolean>
* Modifies the behavior of KV_MODE when set to auto, and auto_escaped.
* Traditionally, automatically identified fields have leading and trailing
  whitespace removed from their values.
  * Example event: 2014-04-04 10:10:45 myfield=" apples "
    would result in a field called 'myfield' with a value of 'apples'.
* If this value is set to false, then external whitespace then this outer
  space is retained.
  * Example: 2014-04-04 10:10:45 myfield=" apples "
    would result in a field called 'myfield' with a value of ' apples '.
* The trimming logic applies only to space characters, not tabs, or other
  whitespace.
* NOTE: Splunk Web currently has limitations with displaying and
  interactively clicking on fields that have leading or trailing
  whitespace. Field values with leading or trailing spaces may not look
  distinct in the event viewer, and clicking on a field value typically
  inserts the term into the search string without its embedded spaces.
  * The limitations are not specific to this feature. Any embedded spaces
```

```
    behave this way.
  * The Splunk search language and included commands respect the spaces.
* Default: true

CHECK_FOR_HEADER = <boolean>
* Used for index-time field extractions only.
* Set to true to enable header-based field extraction for a file.
* If the file has a list of columns and each event contains a field value
  (without field name), Splunk software picks a suitable header line to
  use for extracting field names.
* Can only be used on the basis of [<sourcetype>] or [source::<spec>],
  not [host::<spec>].
* Disabled when LEARN_SOURCETYPE = false.
* Causes the indexed source type to have an appended numeral; for
  example, sourcetype-2, sourcetype-3, and so on.
* The field names are stored in etc/apps/learned/local/props.conf.
  * Because of this, this feature does not work in most environments where
    the data is forwarded.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: false

SEDCMD-<class> = <sed script>
* Only used at index time.
* Commonly used to anonymize incoming data at index time, such as credit
  card or social security numbers. For more information, search the online
  documentation for "anonymize data."
* Used to specify a sed script which Splunk software applies to the _raw
  field.
* A sed script is a space-separated list of sed commands. Currently the
  following subset of sed commands is supported:
    * replace (s) and character substitution (y).
* Syntax:
    * replace - s/regex/replacement/flags
      * regex is a perl regular expression (optionally containing capturing
        groups).
      * replacement is a string to replace the regex match. Use \n for back
        references, where "n" is a single digit.
      * flags can be either: g to replace all matches, or a number to
        replace a specified match.
    * substitute - y/string1/string2/
      * substitutes the string1[i] with string2[i]
* No default.

FIELDALIAS-<class> = (<orig_field_name> AS|ASNEW <new_field_name>)+
* Use FIELDALIAS configurations to apply aliases to a field. This lets you
  search for the original field using one or more alias field names. For
  example, a search expression of <new_field_name>=<value> also
  finds events that match <orig_field_name>=<value>.
* <orig_field_name> is the original name of the field. It is not removed by
  this configuration.
* <new_field_name> is the alias to assign to the <orig_field_name>.
* You can create multiple aliases for the same field. For example, a single
  <orig_field_name> may have multiple <new_field_name>s as long as all of
  the <new_field_name>s are distinct.
  * Example of a valid configuration:
    FIELDALIAS-vendor = vendor_identifier AS vendor_id    \
                        vendor_identifier AS vendor_name
* You can include multiple field alias renames in the same stanza.
* Avoid applying the same alias field name to multiple original field
  names as a single alias cannot refer to multiple original source fields.
  Each alias can map to only one source field. If you attempt to create
  two field aliases that map two separate <orig_field_name>s onto the
  same <new_field_name>, only one of the aliases takes effect, not both.
  * For example, if you attempt to run the following configuration,
    which maps two <orig_field_name>s to the same <new_field_name>, only
    one of the aliases takes effect, not both. The following definition
    demonstrates an invalid configuration:
```

```
    FIELDALIAS-foo = userID AS user loginID AS user
  * If you must do this, set it up as a calculated field (an EVAL-* statement)
    that uses the 'coalesce' function to create a new field that takes the
    value of one or more existing fields. This method lets you be explicit
    about ordering of input field values in the case of NULL fields. For
    example: EVAL-ip = coalesce(clientip,ipaddress)
* The following is true if you use AS in this configuration:
  * If the alias field name <new_field_name> already exists, the Splunk
    software replaces its value with the value of <orig_field_name>.
  * If the <orig_field_name> field has no value or does not exist, the
    <new_field_name> is removed.
* The following is true if you use ASNEW in this configuration:
  * If the alias field name <new_field_name> already exists, the Splunk
    software does not change it.
  * If the <orig_field_name> field has no value or does not exist, the
    <new_field_name> is kept.
* Field aliasing is performed at search time, after field extraction, but
  before calculated fields (EVAL-* statements) and lookups.
  This means that:
  * Any field extracted at search time can be aliased.
  * You can specify a lookup based on a field alias.
  * You cannot alias a calculated field.
* No default.

EVAL-<fieldname> = <eval statement>
* Use this to automatically run the <eval statement> and assign the value of
  the output to <fieldname>. This creates a "calculated field."
* When multiple EVAL-* statements are specified, they behave as if they are
* run in parallel, rather than in any particular sequence.
  For example say you have two statements: EVAL-x = y*2 and EVAL-y=100. In
  this case, "x" is assigned the original value of "y * 2," not the
  value of "y" after it is set to 100.
* Splunk software processes calculated fields after field extraction and
  field aliasing but before lookups. This means that:
  * You can use a field alias in the eval statement for a calculated
    field.
  * You cannot use a field added through a lookup in an eval statement for a
    calculated field.
* No default.

LOOKUP-<class> = $TRANSFORM (<match_field> (AS <match_field_in_event>)?)+ (OUTPUT|OUTPUTNEW (<output_field> (AS
<output_field_in_event>)? )+ )?
* At search time, identifies a specific lookup table and describes how that
  lookup table should be applied to events.
* <match_field> specifies a field in the lookup table to match on.
  * By default Splunk software looks for a field with that same name in the
    event to match with (if <match_field_in_event> is not provided)
  * You must provide at least one match field. Multiple match fields are
    allowed.
* <output_field> specifies a field in the lookup entry to copy into each
  matching event in the field <output_field_in_event>.
  * If you do not specify an <output_field_in_event> value, Splunk software
    uses <output_field>.
  * A list of output fields is not required.
* If they are not provided, all fields in the lookup table except for the
  match fields (and the timestamp field if it is specified) are output
  for each matching event.
* If the output field list starts with the keyword "OUTPUTNEW" instead of
  "OUTPUT", then each output field is only written out if it did not previous
  exist. Otherwise, the output fields are always overridden. Any event that
  has all of the <match_field> values but no matching entry in the lookup
  table clears all of the output fields.  NOTE that OUTPUTNEW behavior has
  changed since 4.1.x (where *none* of the output fields were written to if
  *any* of the output fields previously existed).
* Splunk software processes lookups after it processes field extractions,
  field aliases, and calculated fields (EVAL-* statements). This means that you
  can use extracted fields, aliased fields, and calculated fields to specify
  lookups. But you can't use fields discovered by lookups in the
  configurations of extracted fields, aliased fields, or calculated fields.
```

```
* The LOOKUP- prefix is actually case-insensitive. Acceptable variants include:
   LOOKUP_<class> = [...]
   LOOKUP<class> = [...]
   lookup_<class> = [...]
   lookup<class> = [...]
* No default.
```

二进制文件配置

```
NO_BINARY_CHECK = <boolean>
* When set to true, Splunk software processes binary files.
* Can only be used on the basis of [<sourcetype>], or [source::<source>],
  not [host::<host>].
* Default: false (binary files are ignored).
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.

detect_trailing_nulls = [auto|true|false]
* When enabled, Splunk software tries to avoid reading in null bytes at
  the end of a file.
* When false, Splunk software assumes that all the bytes in the file should
  be read and indexed.
* Set this value to false for UTF-16 and other encodings (CHARSET) values
  that can have null bytes as part of the character text.
* Subtleties of 'true' vs 'auto':
  * 'true' is the historical behavior of trimming all null
           bytes when Splunk software runs on Windows.
  * 'auto' is currently a synonym for true but may be extended to be
           sensitive to the charset selected (i.e. quantized for multi-byte
           encodings, and disabled for unsafe variable-width encodings)
* This feature was introduced to work around programs which foolishly
  preallocate their log files with nulls and fill in data later.  The
  well-known case is Internet Information Server.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default (on *nix machines): false
* Default (on Windows machines): true
```

分段配置

```
SEGMENTATION = <segmenter>
* Specifies the segmenter from segmenters.conf to use at index time for the
  host, source, or sourcetype specified by <spec> in the stanza heading.
* Default: indexing

SEGMENTATION-<segment selection> = <segmenter>
* Specifies that Splunk Web should use the specific segmenter (from
  segmenters.conf) for the given <segment selection> choice.
* Default <segment selection> choices are: all, inner, outer, raw. For more
  information see the Admin Manual.
* Do not change the set of default <segment selection> choices, unless you
  have some overriding reason for doing so. In order for a changed set of
  <segment selection> choices to appear in Splunk Web, you need to edit
  the Splunk Web UI.
```

文件校验和配置

```
CHECK_METHOD = [endpoint_md5|entire_md5|modtime]
* Set CHECK_METHOD to "endpoint_md5" to have Splunk software perform a checksum
  of the first and last 256 bytes of a file. When it finds matches, Splunk
  software lists the file as already indexed and indexes only new data, or
  ignores it if there is no new data.
* Set CHECK_METHOD to "entire_md5" to use the checksum of the entire file.
* Set CHECK_METHOD to "modtime" to check only the modification time of the
  file.
* Settings other than "endpoint_md5" cause Splunk software to index the entire
  file for each detected change.
* This option is only valid for [source::<source>] stanzas.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: endpoint_md5

initCrcLength = <integer>
* See documentation in inputs.conf.spec.
```

小型文件设置

```
PREFIX_SOURCETYPE = <boolean>
* NOTE: this setting is only relevant to the "[too_small]" sourcetype.
* Determines the source types that are given to files smaller than 100
  lines, and are therefore not classifiable.
* PREFIX_SOURCETYPE = false sets the source type to "too_small."
* PREFIX_SOURCETYPE = true sets the source type to "<sourcename>-too_small",
  where "<sourcename>" is a cleaned up version of the filename.
  * The advantage of PREFIX_SOURCETYPE = true is that not all small files
    are classified as the same source type, and wildcard searching is often
    effective.
  * For example, a Splunk search of "sourcetype=access*" retrieves
    "access" files as well as "access-too_small" files.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: true
```

来源类型配置

```
sourcetype = <string>
* Can only be set for a [source::...] stanza.
* Anything from that <source> is assigned the specified source type.
* Is used by file-based inputs, at input time (when accessing logfiles) such
  as on a forwarder, or indexer monitoring local files.
* sourcetype assignment settings on a system receiving forwarded Splunk data
  are not be applied to forwarded data.
* For log files read locally, data from log files matching <source> is
  assigned the specified source type.
* Default: empty string

# The following setting/value pairs can only be set for a stanza that
# begins with [<sourcetype>]:

rename = <string>
* Renames [<sourcetype>] as <string> at search time
* With renaming, you can search for the [<sourcetype>] with
  sourcetype=<string>
* To search for the original source type without renaming it, use the
  field _sourcetype.
* Data from a renamed sourcetype only uses the search-time
```

```
  configuration for the target sourcetype. Field extractions
  (REPORTS/EXTRACT) for this stanza sourcetype are ignored.
* Default: empty string

invalid_cause = <string>
* Can only be set for a [<sourcetype>] stanza.
* If invalid_cause is set, the Tailing code (which handles uncompressed
  logfiles) does not read the data, but hands it off to other components or
  throws an error.
* Set <string> to "archive" to send the file to the archive processor
  (specified in unarchive_cmd).
* When set to "winevt", this causes the file to be handed off to the
  Event Log input processor.
* Set to any other string to throw an error in the splunkd.log if you are
  running Splunklogger in debug mode.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: empty string

is_valid = <boolean>
* Automatically set by invalid_cause.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* DO NOT SET THIS.
* Default: true

force_local_processing = <boolean>
* Forces a universal forwarder to process all data tagged with this sourcetype
  locally before forwarding it to the indexers.
* Data with this sourcetype is processed by the linebreaker,
  aggerator, and the regexreplacement processors in addition to the existing
  utf8 processor.
* Note that switching this property potentially increases the cpu
  and memory consumption of the forwarder.
* Applicable only on a universal forwarder.
* Default: false

unarchive_cmd = <string>
* Only called if invalid_cause is set to "archive".
* This field is only valid on [source::<source>] stanzas.
* <string> specifies the shell command to run to extract an archived source.
* Must be a shell command that takes input on stdin and produces output on
  stdout.
* Use _auto for Splunk software's automatic handling of archive files (tar,
  tar.gz, tgz, tbz, tbz2, zip)
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: empty string

unarchive_sourcetype = <string>
* Sets the source type of the contents of the matching archive file. Use
  this field instead of the sourcetype field to set the source type of
  archive files that have the following extensions: gz, bz, bz2, Z.
* If this field is empty (for a matching archive file props lookup) Splunk
  software strips off the archive file's extension (.gz, bz etc) and lookup
  another stanza to attempt to determine the sourcetype.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: empty string

LEARN_SOURCETYPE = <boolean>
* Determines whether learning of known or unknown sourcetypes is enabled.
  * For known sourcetypes, refer to LEARN_MODEL.
  * For unknown sourcetypes, refer to the rule:: and delayedrule::
    configuration (see below).
```

```
* Setting this field to false disables CHECK_FOR_HEADER as well (see above).
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: true

LEARN_MODEL = <boolean>
* For known source types, the file classifier adds a model file to the
  learned directory.
* To disable this behavior for diverse source types (such as source code,
  where there is no good example to make a sourcetype) set LEARN_MODEL =
  false.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: true

termFrequencyWeightedDist = <boolean>
* Whether or not the Splunk platform calculates distance between files by
  using the frequency at which unique terms appear in those files.
* The Splunk platform calculates file "distance", or how similar one file
  is to another, by analyzing patterns that it finds within each file.
* When this setting is the default of "false", the platform determines the
  file distance by using the number of unique terms that each file shares
  with another. This is the legacy behavior.
* To instead have the platform use the frequency in which those terms occur
  within a file to determine its distance from another file, set this to
  "true". This is a more accurate representation of file distance.
* Default: false

maxDist = <integer>
* Determines how different a source type model may be from the current file.
* The larger the 'maxDist' value, the more forgiving Splunk software is
  with differences.
  * For example, if the value is very small (for example, 10), then files
    of the specified sourcetype should not vary much.
  * A larger value indicates that files of the given source type can vary
    quite a bit.
* If you're finding that a source type model is matching too broadly, reduce
  its 'maxDist' value by about 100 and try again. If you're finding that a
  source type model is being too restrictive, increase its 'maxDist 'value by
  about 100 and try again.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: 300

# rule:: and delayedrule:: configuration

MORE_THAN<optional_unique_value>_<number> = <regular expression> (empty)
LESS_THAN<optional_unique_value>_<number> = <regular expression> (empty)

* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.

An example:

    [rule::bar_some]
    sourcetype = source_with_lots_of_bars
    # if more than 80% of lines have "----", but fewer than 70% have "####"
    # declare this a "source_with_lots_of_bars"
    MORE_THAN_80 = ----
    LESS_THAN_70 = ####

A rule can have many MORE_THAN and LESS_THAN patterns, and all are required
for the rule to match.
```

已配置注释处理器

```
ANNOTATE_PUNCT = <boolean>
* Determines whether to index a special token starting with "punct::"
  * The "punct::" key contains punctuation in the text of the event.
    It can be useful for finding similar events
  * If it is not useful for your dataset, or if it ends up taking
    too much space in your index it is safe to disable it
* Default: true
```

标头处理器配置

```
HEADER_MODE = <empty> | always | firstline | none
* Determines whether to use the inline ***SPLUNK*** directive to rewrite
  index-time fields.
  * If "always", any line with ***SPLUNK*** can be used to rewrite
    index-time fields.
  * If "firstline", only the first line can be used to rewrite
    index-time fields.
  * If "none", the string ***SPLUNK*** is treated as normal data.
  * If <empty>, scripted inputs take the value "always" and file inputs
    take the value "none".
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: <empty>
```

内部设置

```
# NOT YOURS. DO NOT SET.

_actions = <string>
* Internal field used for user-interface control of objects.
* Default: "new,edit,delete".

pulldown_type = <boolean>
* Internal field used for user-interface control of source types.
* Default: empty

given_type = <string>
* Internal field used by the CHECK_FOR_HEADER feature to remember the
  original sourcetype.
* This setting applies at input time, when data is first read by Splunk
  software, such as on a forwarder that has configured inputs acquiring the
  data.
* Default: not set
```

来源类型类别和描述

```
description = <string>
* Field used to describe the sourcetype. Does not affect indexing behavior.
* Default: not set

category = <string>
* Field used to classify sourcetypes for organization in the front end. Case
  sensitive. Does not affect indexing behavior.
```

```
* Default: not set
```

props.conf.example

```
#   Version 8.2.0
#
# The following are example props.conf configurations. Configure properties for
# your data.
#
# To use one or more of these configurations, copy the configuration block into
# props.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


########
# Line merging settings
########

# The following example line-merges source data into multi-line events for
# apache_error sourcetype.

[apache_error]
SHOULD_LINEMERGE = True



########
# Settings for tuning
########

# The following example limits the amount of characters indexed per event from
# host::small_events.

[host::small_events]
TRUNCATE = 256

# The following example turns off DATETIME_CONFIG (which can speed up indexing)
# from any path that ends in /mylogs/*.log.
#
# In addition, the default splunk behavior of finding event boundaries
# via per-event timestamps can't work with NONE, so we disable
# SHOULD_LINEMERGE, essentially declaring that all events in this file are
# single-line.

[source::.../mylogs/*.log]
DATETIME_CONFIG = NONE
SHOULD_LINEMERGE = false



########
# Timestamp extraction configuration
########

# The following example sets Eastern Time Zone if host matches nyc*.

[host::nyc*]
TZ = US/Eastern


# The following example uses a custom datetime.xml that has been created and
# placed in a custom app directory. This sets all events coming in from hosts
# starting with dharma to use this custom file.

[host::dharma*]
DATETIME_CONFIG = <etc/apps/custom_time/datetime.xml>

########
## Timezone alias configuration
########

# The following example uses a custom alias to disambiguate the Australian
# meanings of EST/EDT

TZ_ALIAS = EST=GMT+10:00,EDT=GMT+11:00

# The following example gives a sample case wherein, one timezone field is
# being replaced by/interpreted as another.

TZ_ALIAS = EST=AEST,EDT=AEDT

########
# Transform configuration
########

# The following example creates a search field for host::foo if tied to a
# stanza in transforms.conf.

[host::foo]
TRANSFORMS-foo=foobar

# The following stanza extracts an ip address from _raw
[my_sourcetype]
EXTRACT-extract_ip = (?<ip>\d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3})

# The following example shows how to configure lookup tables
[my_lookuptype]
LOOKUP-foo = mylookuptable userid AS myuserid OUTPUT username AS myusername

# The following shows how to specify field aliases
FIELDALIAS-foo = user AS myuser id AS myid


########
# Sourcetype configuration
########

# The following example sets a sourcetype for the file web_access.log for a
# unix path.

[source::.../web_access.log]
sourcetype = splunk_web_access

# The following example sets a sourcetype for the Windows file iis6.log.  Note:
# Backslashes within Windows file paths must be escaped.

[source::...\\iis\\iis6.log]
sourcetype = iis_access

# The following example extracts syslog events.

[syslog]
invalid_cause = archive
unarchive_cmd = gzip -cd -


# The following example learns a custom sourcetype and limits the range between
# different examples with a smaller than default maxDist.

[custom_sourcetype]
LEARN_MODEL = true
```

```
maxDist = 30


# rule:: and delayedrule:: configuration
# The following examples create sourcetype rules for custom sourcetypes with
# regex.


[rule::bar_some]
sourcetype = source_with_lots_of_bars
MORE_THAN_80 = ----


[delayedrule::baz_some]
sourcetype = my_sourcetype
LESS_THAN_70 = ####


########
# File configuration
########

# Binary file configuration
# The following example eats binary files from the sourcetype
# "imported_records".

[imported_records]
NO_BINARY_CHECK = true


# File checksum configuration
# The following example checks the entirety of every file in the web_access
# directory rather than skipping files that appear to be the same.

[source::.../web_access/*]
CHECK_METHOD = entire_md5

########
# Metric configuration
########

# A metric sourcetype of type statsd with 'regex_stanza1', 'regex_stanza2' to
# extract dimensions
[metric_sourcetype_name]
METRICS_PROTOCOL = statsd
STATSD-DIM-TRANSFORMS = regex_stanza1, regex_stanza2

#Convert a single log event into multiple metrics using METRIC-SCHEMA-TRANSFORMS
#and index time extraction feature.
[logtometrics]
METRIC-SCHEMA-TRANSFORMS = metric-schema:logtometrics
TRANSFORMS-group = extract_group
TRANSFORMS-name = extract_name
TRANSFORMS-max_size_kb = extract_max_size_kb
TRANSFORMS-current_size_kb = extract_current_size_kb
TRANSFORMS-current_size = extract_current_size
TRANSFORMS-largest_size = extract_largest_size
TRANSFORMS-smallest_size = extract_smallest_size
category = metrics
should_linemerge = false
```

pubsub.conf

以下为 pubsub.conf 的规范和示例文件。

pubsub.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attributes and values for configuring a client of
# the PubSub system (broker).
#
# To set custom configurations, place a pubsub.conf in
# $SPLUNK_HOME/etc/system/local/.
# For examples, see pubsub.conf.example. You must restart Splunk to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

#******************************************************************
# Configure the physical location where deploymentServer is running.
# This configuration is used by the clients of the pubsub system.
#******************************************************************
```

[pubsub-server:deploymentServer]

```
disabled = <boolean>
* Default: false

targetUri = <IP:Port>|<hostname:Port>|direct
* Specify either the url of a remote server in case the broker is remote, or
  just the keyword "direct" when broker is in-process.
* It is usually a good idea to co-locate the broker and the Deployment Server
  on the same Splunk. In such a configuration, all
* deployment clients would have targetUri set to deploymentServer:port.

#******************************************************************
# The following section is only relevant to Splunk developers.
#******************************************************************

# This "direct" configuration is always available, and cannot be overridden.
```

[pubsub-server:direct]

```
disabled = false
targetUri = direct
```

[pubsub-server:<logicalName>]

```
* It is possible for any Splunk to be a broker. If you have multiple brokers,
  assign a logicalName that is used by the clients to refer to it.
```

```
disabled = <false or true>
* Default: false

targetUri = <IP:Port>|<hostname:Port>|direct
* The URI of a Splunk that is being used as a broker.
* The keyword "direct" implies that the client is running on the same Splunk
  instance as the broker.
```

pubsub.conf.example

```
#   Version 8.2.0

[pubsub-server:deploymentServer]
disabled=false
targetUri=somehost:8089

[pubsub-server:internalbroker]
disabled=false
targetUri=direct
```

restmap.conf

以下为 restmap.conf 的规范和示例文件。

restmap.conf.spec

```
# Version 8.2.0
#
# This file contains possible attribute/value pairs for creating new
# Representational State Transfer (REST) endpoints.

# There is a restmap.conf in $SPLUNK_HOME/etc/system/default/. To set custom
# configurations, place a restmap.conf in $SPLUNK_HOME/etc/system/local/. For
# examples, see restmap.conf.example. You must restart Splunk software to
# enable configurations.
#
# To learn more about configuration files (including precedence), see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles.
#
# NOTE: You must register every REST endpoint using this file to make it available.
```

全局设置

```
# Use the [global] stanza to define any global settings.
#   * You can also define global settings outside of any stanza at the top
#     of the file.
#   * Each .conf file should have at most one global stanza. If there are
#     multiple global stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in
#     the file takes precedence.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

[global]

allowGetAuth = <boolean>
* Allows the username/password to be passed as a GET parameter to endpoint
  services/authorization/login.
```

```
* Setting to "true" might result in your username and password being
  logged as cleartext in Splunk logs and any proxy servers in between.
* Default: false

allowRestReplay = <boolean>
* Allows POST/PUT/DELETE requests to be replayed on other nodes in the deployment.
* Setting to "true" enables centralized management.
* You can also control replay at each endpoint level.
* CAUTION: This feature is currently internal. Do not enable it
  without consulting Splunk support.
* Default: false

defaultRestReplayStanza = <string>
* Points to the default or global REST replay configuration stanza.
* This setting is related to the 'allowRestReplay' setting.
* Default: restreplayshc

pythonHandlerPath = <path>
* Path to the 'main' python script handler.
* Used by the script handler to determine where the actual 'main' script is
  located.
* Typically you do not need to edit this setting.
* Default: $SPLUNK_HOME/bin/rest_handler.py

[<rest endpoint name>:<endpoint description string>]
* Settings under this stanza are applicable to all REST stanzas.
* Settings in other stanzas might supply additional information.

match = <path>
* Specify the URI that calls the handler.
* For example, if match=/foo
  then https: //$SERVER:$PORT/services/foo
  calls this handler.
* NOTE: You must start your path with a "/".

requireAuthentication = <boolean>
* Determines if this endpoint requires authentication.
* (OPTIONAL)
* Default: true

authKeyStanza = <string>
* A list of comma or space separated stanza names that specifies the location
  of the pass4SymmKeys in the server.conf file to use for endpoint authentication.
* Tries to authenticate with all configured pass4SymmKeys.
* If no pass4SymmKey is available, authentication is done using the
  pass4SymmKey in the [general] stanza.
* This setting applies only if the 'requireAuthentication' setting is set to
  "true".
* (OPTIONAL) When not set, the endpoint will not be authenticated using
  pass4SymmKeys.
* Default: not set

restReplay = <boolean>
* Enables REST replay on this endpoint group.
* (OPTIONAL)
* Related to the 'allowRestReplay' setting.
* CAUTION: This feature is currently internal. Do not
  enable it without consulting Splunk support.
* Default: false

restReplayStanza = <string>
* This setting points to a stanza that can override the
  [global]/defaultRestReplayStanza value on a per-endpoint/regex basis.
* Default: empty string

capability = <capabilityName>
capability.<post|delete|get|put> = <capabilityName>
* Depending on the HTTP method, check capabilities on the authenticated session user.
* If you use the 'capability.<post|delete|get|put>' setting, the associated method is
```

```
  checked against the authenticated user's role.
* If you use the capability' setting, all calls are checked against this
  capability regardless of the HTTP method.
* You can also express capabilities as a boolean expression.
  Supported operators include: or, and, ()

acceptFrom = <comma-separated list>
* A list of networks or addresses from which to allow this endpoint to be accessed.
* Do not confuse this setting with the identical setting in the
  [httpServer] stanza of server.conf which controls whether a host can
  make HTTP requests at all.
* Each rule can be in the following forms:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A CIDR block of addresses (examples: "10/8", "fe80:1234/32")
    3. A DNS name, possibly with a '*' used as a wildcard (examples:
       "myhost.example.com", "*.splunk.com")
    4. A single '*' which matches anything.
* You can also prefix entries with '!' to cause the rule to reject the
  connection. Rules are applied in order, and the first one to match is
  used. For example, "!10.1/16, *" allows connections from everywhere
  except the 10.1.*.* network.
* Default: "*" (accept from anywhere)

includeInAccessLog = <boolean>
* Whether to include requests to this endpoint in the splunkd_access.log.
* If set to "true", requests appear in splunkd_access.log.
* If set to "false", requests do not appear in splunkd_access.log.
* Default: true

[script:<uniqueName>]
* Per-endpoint stanza.
* Use this stanza to specify a handler and other handler-specific settings.
* The handler is responsible for implementing arbitrary namespace underneath
  each REST endpoint.
* NOTE: The uniqueName must be different for each handler.
* Call the specified handler when executing this endpoint.
* The attribute/value pairs below support the script handler.

scripttype = <string>
* Tells the system what type of script to run when using this endpoint.
* If set to "persist", it runs the script using a persistent process that
  uses the protocol from persistconn/appserver.py.
* Default: python

python.version={default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* (OPTIONAL)
* Default: Not set (Uses the system-wide Python version.)

handler=<SCRIPT>.<CLASSNAME>
* The name and class name of the file to execute.
* The file must be located in an application's bin subdirectory.
* For example, $SPLUNK_HOME/etc/apps/<APPNAME>/bin/TestHandler.py has a class
  called MyHandler (which, in the case of python must be derived from a base
  class called 'splunk.rest.BaseRestHandler'). The attribute/value pair for it is:
  "handler=TestHandler.MyHandler".

xsl = <string>
* The path to an XSL transform file.
* Perform an XSL transform on data returned from the handler.
* (OOPTIONAL) Only use this setting if the data is in XML format.
* Does not apply if the 'scripttype' setting is set to "persist".

script = <string>
* The path to a script executable.
* (Optional). Use this setting only if the 'scripttype' setting is set to "python".
  This setting allows you to run a script which is *not* derived from
  'splunk.rest.BaseRestHandler'. This setting is rarely used.
* If the 'scripttype' setting is set to "persist", this setting is
  the path that is sent to the driver to run. In that case,
  environment variables are substituted.

script.arg.<N> = <string>
* A list of arguments that are passed to the driver to start the script.
* Only has effect if the 'scripttype' setting is set to "persist".
* The script can use this information however it wants.
* Environment variables are substituted.

script.param = <string>
* A free-form argument that is passed to the driver when it starts the script.
* (OPTIONAL)
* Only has effect if the 'scripttype' setting is set to "persist".
* The script can use this information however it wants.
* Environment variables are substituted.

output_modes = <comma-separated list>
* Specify which output formats this endpoint can request.
* Valid values: json, xml
* Default: xml

passSystemAuth = <boolean>
* Specifies whether or not to pass in a system-level
  authentication token on each request.
* Default: false

driver = <path>
* If the 'scripttype' setting is set to "persist", specifies
  the command to start a persistent server for this process.
* Endpoints that share the same driver configuration can share processes.
* Environment variables are substituted.
* Default: the persistconn/appserver.py server

driver.arg.<n> = <string>
* If the 'scripttype' setting is set to "persist", specifies
  the command to start a persistent server for this process.
* Environment variables are substituted.
* Only takes effect when "driver" is specifically set.

driver.env.<name> = <string>
* If the 'scripttype' setting is set to "persist", specifies
  an environment variable to set when running the driver process.

passConf = <boolean>
* If set, the script is sent the contents of this
  configuration stanza as part of the request.
* Only has effect if the 'scripttype' setting is set to "persist".
* Default: true

passPayload = [true|false|base64]
* If set to "true", sends the driver the raw, unparsed body of the
  POST/PUT as a "payload" string.
* If set to "base64", the same body is instead base64-encoded and
  sent as a "payload_base64" string.
* Only has effect if the 'scripttype' setting is set to "persist".
* Default: false

passSession = <boolean>
* If set to "true", sends the driver information about the user's
  session. This includes the user's name, an active authtoken,
  and other details.
* Only has effect if the 'scripttype' setting is set to "persist".
* Default: true

passHttpHeaders = <boolean>
* If set to "true", sends the driver the HTTP headers of the request.
* Only has effect if the 'scripttype' setting is set to "persist".
* Default: false

passHttpCookies = <boolean>
* If set to "true", sends the driver the HTTP cookies of the request.
* Only has effect if the 'scripttype' setting is set to "persist".
* Default: false

[admin:<uniqueName>]
* 'admin'
* The built-in handler for the Extensible Administration Interface (EAI).
* Exposes the listed EAI handlers at the given URL.

match = <string>
* A partial URL which, when accessed, displays the handlers listed below.

members = <comma-separated list>
* A list of handlers to expose at this URL.
* See https://localhost:8089/services/admin
  for a list of all possible handlers.

capability = <string>
capability.<post|delete|get|put> = <string>

* One or more capabilities that an authenticated user must hold before they can
  execute an HTTP request against the REST endpoint URL that you specify in
  the stanza name.
* When a logged-in user submits an HTTP request to an endpoint, splunkd confirms
  that the user holds a minimum of the capabilities you specify in this setting
  before it lets the request act upon the endpoint. If the HTTP request is not submitted,
  splunkd rejects the attempt.
* This setting has two forms, which determine how capability checking occurs:
  * 'capability' on its own configures splunkd to confirm that the logged-in
     user holds the capabilities you specify to act upon the URL for any HTTP
     request method.
  * 'capability.<post|delete|get|put>' configures splunkd to confirm that the
    logged-in user holds the capabilities to act upon the URL through the HTTP
    method you specify after the period. You can only specify one method type
    after the period.
  * For example, if you specify "capability.get = admin_all_objects",
    splunkd confirms that the user holds the "admin_all_objects" capability before it
    lets them perform an HTTP GET operation on the endpoint.
* You can represent values for this setting in two ways:
  * As a single capability name, for example, "admin_all_objects".
  * As an expression for multiple capabilities, using the 'and' or 'or' operators.
    You can group capabilities together using parentheses ("()") to create
    complex expressions.
  * For example, if you specify "capability.post = (edit_monitor or edit_sourcetypes) and (edit_user and edit_tcp)"
    then the user must hold one of 'edit_monitor' or 'edit_sourcetypes' and both
    'edit_user' and 'edit_tcp' before they can perform an HTTP POST operation on
    the endpoint.
  * Both setting formats can use either value format as long as the
    capabilities you specify are valid.
* Regardless of the HTTP request method that the user submits,
  the request can only act upon the handlers that this endpoint exposes
  with the 'members' setting. To set granular capability checking over
  multiple custom handlers, create multiple [admin:<uniqueName>]
  stanzas with the same name and use the 'members' setting to define different
  custom handlers within each stanza.
* No default.

[admin_external:<uniqueName>]
* 'admin_external'
* Register Python handlers for the Extensible Administration Interface (EAI).
* The handler is exposed via its "uniqueName".
* NOTE: Splunkd does not honor capability checks under this stanza.
  Define capability checks on endpoints under [admin:*] stanzas instead.
  handlertype = <string>
* The script type.
* Currently the only valid value is "python".
```

```
python.version={default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Either "default" or "python" select the system-wide default Python version.
* Optional.
* Default: not set; uses the system-wide Python version.

handlerfile=<string>
* Script to execute.
* For bin/myAwesomeAppHandler.py, specify only myAwesomeAppHandler.py.

handlerpersistentmode = <boolean>
* Set to "true" to run the script in persistent mode and
  keep the process running between requests.

handleractions = <comma-separated list>
* a list of EAI actions supported by this handler.
* Valid values: create, edit, list, delete, _reload

[validation:<handler-name>]
* Validation stanzas.
* Add stanzas using the following definition to add argument
  validation to the appropriate EAI handlers.

<field> = <validation-rule>
* <field> is the name of the field whose value is validated when an
  object is being saved.
* <validation-rule> is an eval expression using the validate() function to
  evaluate argument correctness and return an error message. If you use a boolean
  returning function, a generic message is displayed.
* <handler-name> is the name of the REST endpoint that this stanza applies to.
  handler-name is what is used to access the handler via
  /servicesNS/<user>/<app/admin/<handler-name>.
* For example:
  action.email.sendresult = validate( isbool('action.email.sendresults'), "'action.email.sendresults' must be a boolean
value").
* NOTE: Use "'" or "$" to enclose field names that contain non-alphanumeric characters.

[eai:<EAI handler name>]
* 'eai'
* Settings to alter the behavior of EAI handlers in various ways.
* Users do not need to edit these settings.

showInDirSvc = <boolean>
* Whether configurations managed by this handler should be enumerated via the
  directory service, used by SplunkWeb's "All Configurations" management page.
* Default: false

desc = <string>
* Allows for renaming the configuration type of these objects
  when enumerated via the directory service.

[input:...]
* Miscellaneous parameters.
* The undescribed settings in these stanzas all operate according to the
  descriptions listed under the [script] stanza above.
* Users do not need to edit these settings. They only exist to quiet
  down the configuration checker.

dynamic = <boolean>
* If set to "true", listen on the socket for data.
* If set to "false", data is contained within the request body.
* Default: false

[peerupload:...]
path = <path>
* The path to search through to find configuration bundles from search peers.

untar = <boolean>
```

```
* Whether or not to untar a file once the transfer is complete.

[proxybundleupload:...]
path = <path>
* The path to search through to find proxy configuration bundles from search heads.

untar = <boolean>
* Whether or not to untar a file once the transfer is complete.

[restreplayshc]
methods =  <comma-separated list>
* REST methods that are replayed.
* Available fields: POST, PUT, DELETE, HEAD, GET

nodelists = <comma-separated list>
* Strategies for replay.
* Available fields: shc, nodes, filternodes
* "shc" replays to all other nodes in a search head cluster.
* "nodes" provide raw comma-separated URIs in nodes variable.
* "filternodes" filters out specific nodes. It is always applied
  after other strategies.

nodes = <comma-separated list>
* A list of management URIs (specific nodes) that
  you want the REST call to be replayed to.

filternodes = <comma-separated list>
* A list of management URIs (specific nodes) that
  you do not want the REST call to be replayed to.

[proxy:appsbrowser]
destination = <URL>
* The protocol, subdomain, domain, port, and path
  of the Splunkbase API used to browse apps.
* Default: https://splunkbase.splunk.com/api
```

restmap.conf.example

```
#   Version 8.2.0
#
# This file contains example REST endpoint configurations.
#
# To use one or more of these configurations, copy the configuration block into
# restmap.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# The following are default REST configurations.  To create your own endpoints,
# modify the values by following the spec outlined in restmap.conf.spec.


# ///////////////////////////////////////////////////////////////////////////////
#  global settings
# ///////////////////////////////////////////////////////////////////////////////

[global]

# indicates if auths are allowed via GET params
allowGetAuth=false

#The default handler (assuming that we have PYTHONPATH set)
pythonHandlerPath=$SPLUNK_HOME/bin/rest_handler.py
```

```
# ///////////////////////////////////////////////////////////////////////////////
#  internal C++ handlers
# NOTE: These are internal Splunk-created endpoints. 3rd party developers can
# only use script or search can be used as handlers.
# (Please see restmap.conf.spec for help with configurations.)
# ///////////////////////////////////////////////////////////////////////////////

[SBA:sba]
match=/properties
capability=get_property_map

[asyncsearch:asyncsearch]
match=/search
capability=search

[indexing-preview:indexing-preview]
match=/indexing/preview
capability=(edit_monitor or edit_sourcetypes) and (edit_user and edit_tcp)
```

savedsearches.conf

以下为 savedsearches.conf 的规范和示例文件。

savedsearches.conf.spec

```
#   Version 8.2.0
#
# This file contains possible setting/value pairs for saved search entries in
# the savedsearches.conf file.  You can configure saved searches by creating
# your own savedsearches.conf file.
#
# There is a default savedsearches.conf file in
# $SPLUNK_HOME/etc/system/default. To set custom configurations, place a
# savedsearches.conf file in $SPLUNK_HOME/etc/system/local/. For examples, see
# the savedsearches.conf.example file. You must restart Splunk to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top of
#    the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, settings are combined. In the case of multiple
#    definitions of the same settings, the last definition in the file wins.
#  * If a setting is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.
```

Savedsearches.conf 文件的可能设置为：

```
[<stanza name>]
* Create a unique stanza name for each saved search.
* Follow the stanza name with any number of the following settings.
* If you do not specify a setting, Splunk software uses the default.

disabled = <boolean>
* Disable your search by setting 'disabled=true'.
* You cannot run a disabled search.
* This setting is typically used to prevent a scheduled search from running
  on its schedule, without deleting the stanza for the search in the
  savedsearches.conf file.
* Default: false

search = <string>
* The actual search string for the saved search.
  * For example, 'search = index::sampledata http NOT 500'.
* Your search can include macro searches for substitution.
  * To learn more about creating a macro search, search the documentation for
    "macro search."
* Multi-line search strings currently have some limitations. For example, use
  with the search command '|savedsearch' does not currently work with multi-line
  search strings.
* No default.

dispatchAs = [user|owner]
* When the saved search is dispatched using the "saved/searches/{name}/dispatch"
  endpoint, this setting controls what user that search is dispatched as.
* This setting is only meaningful for shared saved searches.
* When dispatched as "user", the search is run as if the requesting user owned
  the search.
* When dispatched as "owner", the search is run as if the owner of the search
  dispatched the search, no matter which user requested it.
* If the 'force_saved_search_dispatch_as_user' setting, in the limits.conf
  file, is set to "true", then the 'dispatchAs' setting is reset to "user" while
  the saved search is dispatching.
* Default: owner
```

计划选项

```
enableSched = [0 | 1]
* Specifies whether or not to run the search on a schedule.
* The only acceptable values for this setting are 0 and 1.
* Set this to 1 (true) to run your search on a schedule.
* Default: 0

cron_schedule = <cron string>
* The cron schedule that is used to run this search.
* For example: */5 * * * *  causes the search to run every 5 minutes.
* You can use standard cron notation to define your scheduled search interval.
  In particular, cron can accept this type of notation: 00,20,40 * * * *, which
  runs the search every hour at hh:00, hh:20, hh:40.
  A cron of 03,23,43 * * * * runs the search every hour at hh:03, hh:23, hh:43.
* To reduce system load, schedule your searches so that they are staggered over
  time. Running all of the saved searches every 20 minutes (*/20) means all of
  the searches would launch at hh:00 (20, 40) and might slow your system every
  20 minutes.
* The Splunk cron implementation does not currently support names of months or
  days.
* No default.

schedule = <cron-style string>
* This setting is DEPRECATED as of version 4.0.
* For more information, see the pre-4.0 spec file.
* Use 'cron_schedule' to define your scheduled search interval.

allow_skew = <percentage>|<duration-specifier>
```

```
* Lets the search scheduler randomly distribute scheduled searches more evenly
  over the scheduled time periods.
* When set to non-zero for searches with the following cron_schedule values,
  the search scheduler randomly "skews" the second, minute, and hour that the
  search actually runs on:
    * * * * *     Every minute.
    */M * * * *   Every M minutes (M > 0).
    0 * * * *     Every hour.
    0 */H * * *   Every H hours (H > 0).
    0 0 * * *     Every day (at midnight).
* When set to non-zero for a search that has any other 'cron_schedule' setting,
  the search scheduler can only randomly skew the second that the search runs
  on.
* The amount of skew for a specific search remains constant between edits of
  the search.
* To specify a percentage: Use an integer value followed by the percent '%'
  symbol. This specifies the maximum amount of time to skew, as a percentage of
  the scheduled search period.
* To specify a duration: Use <integer><timescale> to specify a maximum duration.
  Supported units are:
    m, min, minute, mins, minutes
    h, hr, hour, hrs, hours
    d, day, days
  The <timescale> is required and can be omitted only when <integer> is 0.
* Skew examples:
    100% (For an every-5-minute search = 5 minutes maximum)
    50%  (For an every-1-minute search = 30 seconds maximum)
    5m = 5 minutes maximum
    1h = 1 hour maximum
* A value of 0 does not allow a skew to occur.
* Default: 0

max_concurrent = <unsigned integer>
* The maximum number of concurrent instances of this search that the scheduler
  is allowed to run.
* Default: 1

realtime_schedule = <boolean>
* Controls the way the scheduler computes the next run time of a scheduled
  search.
* When set to 'true', the scheduler determines the next scheduled search run
  time based on the current time.
    * NOTE: When set to 'true', the scheduler might skip some execution periods
      to make sure that the scheduler is executing the searches that are running
      over the most recent time range.
* When set to 'false', the scheduler determines the next scheduled search run
  time the scheduler determines the next scheduled search run time based on the
  last run time for the search. This is called continuous scheduling.
    * NOTE: When set to 'false', the scheduler never skips scheduled execution
          periods. However, the execution of the saved search might fall behind
      depending on the scheduler's load.
    * Use continuous scheduling whenever you enable the 'summary index' option.
* The scheduler tries to run searches that have 'realtime_schedule' set to true
  before it runs searches that have continuous scheduling
  (realtime_schedule = false).
* Default: true

schedule_priority = [default | higher | highest]
* Raises the scheduling priority of a search:
  * When set to "default", this setting specifies that there is no increase to
    the scheduling priority.
  * When set to "higher", this setting specifies that the scheduling priority
    is higher than other searches of the same scheduling tier. While there are
    four tiers of priority for scheduled searches, only the following are
    affected by this setting:
      1. Real-Time-Scheduled (realtime_schedule=1).
      2. Continuous-Scheduled (realtime_schedule=0).
  * When set to "highest", this setting specifies that the scheduling priority
    is higher than other searches regardless of scheduling tier. However,
    real-time-scheduled searches with 'schedule_priority = highest' always have
    priority over continuous scheduled searches with 'schedule_priority =
    highest'.
  * The high-to-low order is:
      RTSS(H) > CSS(H) > RTSS(h) > RTSS(d) > CSS(h) > CSS(d)
    Where:
        RTSS = real-time-scheduled search
        CSS = continuous-scheduled search
        d = default
        h = higher
        H = highest
* The scheduler honors a non-default priority only when the search owner has
  the 'edit_search_schedule_priority' capability.
  * A non-default priority is mutually exclusive with a non-zero
    'schedule_window' (see below). If a user specifies both for a scheduled
    search, the scheduler honors the priority only.
  * However, if a user specifies both settings for a search, but the search
    owner does not have the 'edit_search_scheduler_priority' capability, then
    the scheduler ignores the priority setting and honors the 'schedule_window'.
* CAUTION: Having too many searches with a non-default priority impedes the
  ability of the scheduler to minimize search starvation. Use this setting
  only for mission-critical searches.
* Default: default

schedule_window = <unsigned integer> | auto
* When 'schedule_window' is non-zero, it indicates to the scheduler that the
  search does not require a precise start time. This gives the scheduler
  greater flexibility when it prioritizes searches.
* When 'schedule_window' is set to an integer greater than 0, it specifies the
  "window" of time (in minutes) that a search may start within.
    * The 'schedule_window' must be shorter than the period of the search.
    * Schedule windows are not recommended for searches that run every minute.
* When set to 0, there is no schedule window. The scheduler starts the search
  as close to its scheduled time as possible.
* When set to "auto," the scheduler calculates the 'schedule_window' value
  automatically.
    * For more information about this calculation, see the search scheduler
      documentation.
* A non-zero 'schedule_window' is mutually exclusive with a non-default
  'schedule_priority'. See 'schedule_priority' for details.
* Default: 0 for searches that are owned by users with the
           'edit_search_schedule_window' capability.
           For these searches, this value can be changed.
* Default: auto for searches that are owned by users that do not have the
           'edit_search_window' capability.
           For these searches, this setting cannot be changed.

schedule_as = [auto|classic|prjob]
* Specifies whether a scheduled search should use parallel reduce search
  processing each time it runs.
* When set to 'auto', the Splunk software determines automatically whether
  this scheduled search should use parallel reduce search processing, each time
  it runs. This means it might not use parallel reduce processing some of the
  time or all of the time. For details, please check 'autoAppliedPercentage' in
  'parallelreduce' stanza.
* When set to 'classic', the Splunk software is forced to NOT use parallel reduce
  search processing for this scheduled search, each time it runs.
* When set to 'prjob', the Splunk software is forced to use parallel reduce
  search processing for this scheduled search, each time it runs.
* Default: 'auto'
```

工作负荷管理选项

```
workload_pool = <name of workload pool>
* Specifies the name of the workload pool to be used by this search.
* There are multiple workload pools defined in the workload_pools.conf file.
  Each workload pool has different resource limits associated with it, for
  example, CPU, Memory, etc.
* The search process of this search is launched into the 'workload_pool'
  specified above.
* The 'workload_pool' used should be defined in the workload_pools.conf file.
* If workload management is enabled and a explicit 'workload_pool' is not
  specified, the 'default_pool' defined in the workload_pools.conf file is used.
```

通知选项

```
counttype = number of events | number of hosts | number of sources | custom | always
* Set the type of count for alerting.
* Used with the 'relation' and 'quantity' settings.
* NOTE: If you specify "always," do not set 'relation' or 'quantity'.
* Default: always

relation = greater than | less than | equal to | not equal to | drops by | rises by
* Specifies how to compare against 'counttype'.
* Default: empty string

quantity = <integer>
* Specifies a value for the 'counttype' and 'relation' settings, to determine
  the condition under which an alert is triggered by a saved search.
* Think of it as a sentence constructed like this: <counttype><relation>
  <quantity>.
  * For example, "number of events [is] greater than 10" sends an alert when the
    count of events is larger than by 10.
  * For example, "number of events drops by 10%" sends an alert when the count
    of events drops by 10%.
* Default: empty string

alert_condition = <search string>
* Contains a conditional search that is evaluated against the results of the
  saved search. Alerts are triggered if the specified search yields a
  non-empty search result list.
* Default: empty string


#*******
# Generic action settings.
# For a comprehensive list of actions and their arguments, refer to the
# alert_actions.conf file.
#*******

action.<action_name> = <boolean>
* Indicates whether the action is enabled for a particular saved
  search.
* The 'action_name' can be: email | populate_lookup | script | summary_index
* For more about your defined alert actions see the alert_actions.conf file.
* Default: empty string

action.<action_name>.<parameter> = <value>
* Overrides an action's <parameter> as defined in the alert_actions.conf file,
  with a new <value> for this saved search only.
* Default: empty string
```

电子邮件操作设置

```
action.email = <boolean>
* Specifies whether the email action is enabled for this search.
* Default: false

action.email.to = <email list>
* REQUIRED. This setting is not defined in the alert_actions.conf file.
* Set a comma-delimited list of recipient email addresses.
* Default: empty string

* NOTE: When configured in Splunk Web, the following email settings
  are written to this conf file only if their values differ
  from the settings in the alert_actions.conf file.

action.email.from = <email address>
* Set an email address to use as the sender's address.
* Default: splunk@<LOCALHOST>
    (or the 'from' setting in the alert_actions.conf file)

action.email.subject = <string>
* Set the subject of the email delivered to recipients.
* Default: SplunkAlert-<savedsearchname>
    (or the 'subject' setting in the alert_actions.conf file)

action.email.mailserver = <string>
* Set the address of the MTA server to be used to send the emails.
* Default: <LOCALHOST>
    (or the 'mailserver' setting in alert_actions.conf file)

action.email.maxresults = <integer>
* Set the maximum number of results to email.
* Any alert-level results threshold greater than this number is capped at this
  level.
* This value affects all methods of result inclusion by email alert: inline,
  CSV, and PDF.
* NOTE: This setting is affected globally by the 'maxresults' setting in the
  [email] stanza of the alert_actions.conf file.
* Default: 10000

action.email.include.results_link = [1|0]
* Specify whether to include a link to search results in the alert notification
  email.
* Default: 1 (true)
    (or the 'include.result.link' setting in the alert_actions.conf file)

action.email.include.search = [1|0]
* Specify whether to include the query whose results triggered the email.
* Default: 0 (false)
    (or the 'include.search' setting in the alert_actions.conf file)

action.email.include.trigger = [1|0]
* Specify whether to include the alert trigger condition.
* Default: 0 (false)
    (or the 'include.trigger' setting in the alert_actions.conf file)

action.email.include.trigger_time = [1|0]
* Specify whether to include the alert trigger time.
* Default: 0 (false) or whatever is set in the alert_actions.conf file

action.email.include.view_link = [1|0]
* Specify whether to include saved search title and a link for editing the
  saved search.
* Default: 1 (true)
    (or the 'include.view_link' setting in the alert_actions.conf file)

action.email.inline = [1|0]
* Specify whether to include search results in the body of the alert
  notification email.
* Default: 0 (false)
    (or the 'inline' setting in the alert_actions.conf file)

action.email.sendcsv = [1|0]
```

```
* Specify whether to send results as a CSV file.
* Default: 0
    (or the 'sendcsv' setting in the alert_actions.conf file)

action.email.allow_empty_attachment = <boolean>
* Specifies whether the Splunk software attaches a CSV or PDF file to an
  alert email even when the triggering alert search does not have results.
* Use this setting to override for specific alerts the default set for
  email alert actions in 'alert_actions.conf'.
* Default: set by the 'allow_empty_attachment' setting in
           'alert_actions.conf'

action.email.sendpdf = [1|0]
* Specify whether to send results as a PDF file.
* Default: 0 (false)
    (or the 'sendpdf' setting in the alert_actions.conf file)

action.email.sendresults = [1|0]
* Specify whether to include search results in the alert notification email.
* Default: 0 (false)
    (or the 'sendresults' setting in the alert_actions.conf file)
```

脚本操作设置

```
action.script = <boolean>
* Specifies whether the script action is enabled for this search.
* Default: false

action.script.filename = <script filename>
* The filename, with no path, of the shell script to run.
* The script should be located in: $SPLUNK_HOME/bin/scripts/
* For system shell scripts on UNIX, or .bat or .cmd file on Windows, there
  are no further requirements.
* For other types of scripts, the first line should begin with a #! marker,
  followed by a path to the interpreter that will run the script.
  * Example: #!C:\Python27\python.exe
* Default: empty string
```

查找操作设置

```
action.lookup = <boolean>
* Specifies whether the lookup action is enabled for this search.
* Default: false

action.lookup.filename = <lookup filename>
* Provide the name of the CSV lookup file to write search results to.
  Do not provide a file path.
* Lookup actions can only be applied to CSV lookups.

action.lookup.append = <boolean>
* Specifies whether to append results to the lookup file defined for the
  'action.lookup.filename' setting.
* Default: false
```

摘要索引操作设置

```
action.summary_index = <boolean>
* Specifies whether the summary index action is enabled for this search.
* Default: false.

action.summary_index._name = <index>
* Specifies the name of the summary index where the results of the scheduled
  search are saved.
* Default: summary

action.summary_index._type = [event | metric]
* Specifies the data type of the summary index where the Splunk software saves
  the results of the scheduled search.
* Default: event

action.summary_index._metric_dims = <comma-delimited-field-list>
* Optional
* Identify one or more fields with numeric values that the Splunk software
  should convert into dimensions during the summary indexing process.
* The Splunk software converts all fields with numeric values that are not in
  this list into measures.
* If you provide a list of fields, separate them with commas.
* Default: empty string

action.summary_index.inline = <boolean>
* Specify whether to run the summary indexing action as part of the
  scheduled search.
* NOTE: This option is considered only if the summary index action is enabled
  and is always run (in other words, if 'counttype = always').
* Default: 1 (true)

action.summary_index.<field> = <string>
* Specifies a field/value pair to add to every event that gets summary indexed
  by this search.
* You can define multiple field/value pairs for a single summary index search.

action.summary_index.force_realtime_schedule = <boolean>
* By default 'realtime_schedule' is false for a report configured for
  summary indexing. Set this attribute to 'true' or '1' to override the
  default behavior.
* CAUTION: Setting this to 'true' can cause gaps in summary data as a
  realtime_schedule
  search is skipped if search concurrency limits are violated.
* Default: 0 (false)
```

查找表填充参数设置

```
action.populate_lookup = <boolean>
* Specifies whether the lookup population action is enabled for this search.
* Default: false

action.populate_lookup.dest = <string>
* Can be one of the following two options:
  * A lookup name from transforms.conf. The lookup name cannot be associated
    with KV store.
  * A path to a lookup .csv file that the search results should be copied to,
    relative to $SPLUNK_HOME.
    * NOTE: This path must point to a .csv file in either of the following
            directories:
      * etc/system/lookups/
      * etc/apps/<app-name>/lookups
      * NOTE: the destination directories of the above files must already exist.
* Default: empty string

run_on_startup = <boolean>
* Specifies whether this search runs when the Splunk platform starts
  or any edit that changes search related arguments happen. This includes search
  and dispatch.* arguments.
```

```
* If set to "true", the search is run as soon as possible during startup or
  after edit. Otherwise the search is run at the next scheduled time.
* Set 'run_on_startup' to "true" for scheduled searches that populate
  lookup tables or generate artifacts used by dashboards.
* Default: false

run_n_times = <unsigned integer>
* Runs this search exactly the specified number of times. The search is not run
  again until the Splunk platform is restarted.
* Default: 0 (infinite)
```

Dispatch 搜索选项

```
dispatch.ttl = <integer>[p]
* Indicates the time to live (ttl), in seconds, for the artifacts of the
  scheduled search, if no actions are triggered.
* If the integer is followed by the letter 'p', the ttl is calculated as a
  multiple of the execution period for the scheduled search.
  For example, if the search is scheduled to run hourly and ttl is set to 2p,
  the ttl of the artifacts is set to 2 hours.
* If an action is triggered, the ttl is changed to the ttl for the action. If
  multiple actions are triggered, the action with the largest ttl is applied
  to the artifacts. To set the ttl for an action, refer to the
  alert_actions.conf.spec file.
* For more information on the ttl for a search, see the limits.conf.spec file
  [search] stanza ttl setting.
* Default: 2p, which is 2 times the period of the scheduled search

dispatch.buckets  = <integer>
* The maximum number of timeline buckets.
* Default: 0

dispatch.max_count = <integer>
* The maximum number of results before finalizing the search.
* Default: 500000

dispatch.max_time = <integer>
* The maximum amount of time, in seconds, before finalizing the search.
* Default: 0

dispatch.lookups = 1| 0
* Enables or disables lookups for this search.
* Specify 1 to enable, 0 to disable.
* Default: 1

dispatch.earliest_time = <time-str>
* Specifies the earliest time for this search. Can be a relative or absolute
  time.
* If this value is an absolute time, use the 'dispatch.time_format' setting
  to format the value.
* Default: empty string

dispatch.latest_time = <time-str>
* Specifies the latest time for this saved search. Can be a relative or
  absolute time.
* If this value is an absolute time, use the 'dispatch.time_format' setting
  to format the value.
* Default: empty string

dispatch.index_earliest= <time-str>
* Specifies the earliest index time for this search. Can be a relative or
  absolute time.
* If this value is an absolute time, use the 'dispatch.time_format setting
  to format the value.
```

```
* Defaults: empty string

dispatch.index_latest= <time-str>
* Specifies the latest index time for this saved search. Can be a relative or
  absolute time.
* If this value is an absolute time, use the 'dispatch.time_format' setting
  to format the value.
* Default: empty string

dispatch.time_format = <time format str>
* Defines the time format that is used to specify the earliest and latest
  time.
* Default: %FT%T.%Q%:z

dispatch.spawn_process = 1 | 0
* Specifies whether a new search process is started when this saved search
  is run.
* Default: 1 (true)

dispatch.auto_cancel = <integer>
* Specifies the amount of inactive time, in seconds, after which the job
  is automatically canceled.
* 0 means to never auto-cancel the job.
* Default: 0

dispatch.auto_pause = <integer>
* Specifies the amount of inactive time, in seconds, after which the
  search job is automatically paused.
* 0 means to never auto-pause the job.
* To restart a paused search job, specify 'unpause' as an action to POST
  search/jobs/{search_id}/control.
* auto_pause only goes into effect once. Unpausing after auto_pause does not
  put auto_pause into effect again.
* Default: 0

dispatch.reduce_freq = <integer>
* Specifies the frequency, in number of intermediary results chunks, that
  the MapReduce reduce phase should run on the accumulated map values.
* Default: 10

dispatch.allow_partial_results = <boolean>
* Specifies whether the search job can proceed to provide partial results if a search
  peer fails. When set to false, the search job fails if a search peer providing
  results for the search job fails.
* Default: true

dispatch.rt_backfill = <boolean>
* Specifies whether to do real-time window backfilling for scheduled real-time
  searches.
* Default: false

dispatch.indexedRealtime = <boolean>
* Specifies whether to use 'indexed-realtime' mode when doing real-time
  searches.
* Overrides the setting in the limits.conf file for the
  'indexed_realtime_use_by_default' setting in the [realtime] stanza.
* This setting applies to each job.
* See the [realtime] stanza in the limits.conf.spec file for more information.
* Default: The value for 'indexed_realtime_use_by_default' in the limits.conf
  file.

dispatch.indexedRealtimeOffset = <integer>
* Controls the number of seconds to wait for disk flushes to finish.
* Overrides the setting in the limits.conf file for the
  'indexed_realtime_disk_sync_delay' setting in the [realtime] stanza.
* This setting applies to each job.
* See the [realtime] stanza in the limits.conf.spec file for more information.
* Default: The value for 'indexed_realtime_disk_sync_delay' in the limits.conf
  file.
```

```
dispatch.indexedRealtimeMinSpan = <integer>
* Minimum seconds to wait between component index searches.
* Overrides the setting in the limits.conf file for the
  'indexed_realtime_default_span' setting in the [realtime] stanza.
* This setting applies to each job.
* See the [realtime] stanza in the limits.conf.spec file for more information.
* Default: The value for 'indexed_realtime_default_span' in the limits.conf
  file.

dispatch.rt_maximum_span = <integer>
* The max seconds allowed to search data which falls behind realtime.
* Use this setting to set a limit, after which events are not longer considered
  for the result set. The search catches back up to the specified delay from
  realtime and uses the default span.
* Overrides the setting in the limits.conf file for the
  'indexed_realtime_maximum_span' setting in the [realtime] stanza.
* This setting applies to each job.
* See the [realtime] stanza in the limits.conf.spec file for more information.
* Default: the value for 'indexed_realtime_maximum_span' in the limits.conf
  file.

dispatch.sample_ratio = <integer>
* The integer value used to calculate the sample ratio. The formula is
  1 / <integer>.
* The sample ratio specifies the likelihood of any event being included in the
  sample.
* For example, if sample_ratio = 500, each event has a 1/500 chance of being
  included in the sample result set.
* Default: 1

restart_on_searchpeer_add = 1 | 0
* Specifies whether to restart a real-time search managed by the scheduler when
  a search peer becomes available for this saved search.
* NOTE: The peer can be a newly added peer or a peer that has been down and has
        become available.
* Default: 1 (true)
```

持久搜索选项

```
durable.track_time_type = [ _time | _indextime | none ]
* Indicates that a scheduled search is durable and specifies how the search
  tracks events.
  * A durable search is a search that tries to ensure the delivery of all
    results, even when the search process is slowed or stopped by runtime
    issues like rolling restarts, network bottlenecks, and even downed servers.
  * When durable searches encounter search errors that they cannot recover
    from, they do not return any results.
  * When a durable scheduled search job fails in this manner, the Splunk
    software reschedules a new run of the durable search over the same period
    of time to backfill the missing data. See the 'durable.backfill_type' and
    'durable.max_backfill_intervals' settings for more information.
  * This setting cannot be applied to real-time and ad hoc searches.
  * For searches of metric data, only the '_time' setting is available.
* If set to '_time', the durable search tracks each event by its original
  timestamp.
* If set to '_indextime', the durable search tracks each event by the the time
  that it is indexed.
* If this setting is set to 'none' or not set, the search is not durable.
* Default: Not set

durable.lag_time = <unsigned integer>
* Specifies the search time delay, in seconds, that a durable search uses to catch
  events that are ingested or indexed late.
* This setting takes effect only for searches that have a setting for
  'durable.track_time_type'.
```

```
* In most cases, '60' (1 minute) is a good 'lag_time' for durable searches that
  track '_indextime'.
* If your durable search tracks '_time', check to see how long the events for
  the search are delayed at indexing before setting a 'lag_time' for it.
* Default: 0

durable.backfill_type = [ auto | time_interval | time_whole ]
* Specifies how the Splunk software backfills the lost search results of failed
  scheduled search jobs.
* When set to 'time_whole', the Splunk software schedules a single backfill
  search job with a time range that spans the combined time ranges of all
  failed scheduled search jobs. The 'time_whole' setting can be applied only to
  searches that are streaming, where the results are raw events without
  additional aggregation.
* When set to 'time_interval', the Splunk software schedules multiple backfill
  search jobs, one for each failed scheduled search job. The backfill jobs have
  time ranges that match those of the failed jobs. The 'time_interval' setting
  can be applied to both streaming and non-streaming searches,
* When set to 'auto', the Splunk software decides the backfill type by checking
  whether the search is streaming or not. If the search is streaming, the
  Splunk software uses the 'time_whole' backfill type. Otherwise, it uses the
  'time_interval' backfill type.
* This setting takes effect only for searches that have a setting for
  'durable.track_time_type'.
* Default: auto

durable.max_backfill_intervals = <unsigned integer>
* Specifies the maximum number of cron intervals (previous scheduled search
  jobs) that the Splunk software can attempt to backfill for this search, when
  those jobs have incomplete events.
* This setting takes effect only for searches that have a setting for
  'durable.track_time_type'.
* For example, if 'durable.max_backfill_intervals' is set to '100', the maximum
  backfill time range for a search is 100 multiplied by the cron interval for
  the scheduled search.
* Default: 0 (unlimited)
```

自动摘要选项

```
auto_summarize  = <boolean>
* Specifies if the scheduler should ensure that the data for this search is
  automatically summarized.
* Default: false

auto_summarize.command = <string>
* A search template to use to construct the auto summarization for this search.
* DO NOT change this setting unless you know what you're doing.

auto_summarize.timespan = <time-specifier> (, <time-specifier>)*
* Comma-delimited list of time ranges that each summarized chunk should span.
  This comprises the list of available granularity levels for which summaries
  would be available. For example, a timechart over the last month whose
  granularity is at the day level should set this to "1d". If you need
  the same data summarized at the hour level because you need to have weekly
  charts then use: "1h,1d".
* This setting does not support "1w" timespans.

auto_summarize.cron_schedule = <cron-string>
* Cron schedule to use to probe or generate the summaries for this search.

auto_summarize.dispatch.<arg-name> = <string>
* Any dispatch.* options that need to be overridden when running the summary
  search.

auto_summarize.suspend_period = <time-specifier>
* The amount of time to suspend summarization of this search if the
```

```
  summarization is deemed unhelpful.
* Default: 24h

auto_summarize.max_summary_size = <unsigned integer>
* The minimum summary size when to start testing its helpfulness.
* Default: 52428800 (5MB)

auto_summarize.max_summary_ratio = <positive decimal>
* The maximum ratio of summary_size/bucket_size when to stop summarization and
  deem it unhelpful for a bucket.
* NOTE: The test is only performed if the summary size is larger
  than the 'auto_summarize.max_summary_size' setting.
* Default: 0.1

auto_summarize.max_disabled_buckets = <unsigned integer>
* The maximum number of buckets with the suspended summarization before the
  summarization search is completely stopped and the summarization of the
  search is suspended for the value specified in the
  'auto_summarize.suspend_period' setting.
* Default: 2

auto_summarize.max_time = <unsigned integer>
* The maximum amount of time that the summary search is allowed to run.
* NOTE: This is an approximate time and the summarize search will be stopped at
  clean bucket boundaries.
* Default: 3600

auto_summarize.hash = <string>
* An auto generated setting.

auto_summarize.normalized_hash = <string>
* An auto generated setting.

auto_summarize.max_concurrent = <unsigned integer>
* The maximum number of concurrent instances of this auto summarizing search,
  that the scheduler is allowed to run.
* Defaults: 1

auto_summarize.workload_pool = <name of workload pool>
* Sets the name of the workload pool that is used by this auto summarization.
* There are multiple workload pools defined in workload_pools.conf.
  Each workload pool has different resource limits associated with it,
  for example, CPU, Memory, etc.
* The search process of this auto summarization are launched into the
  workload_pool specified above.
* The workload_pool used should be defined in workload_pools.conf.
* If workload management is enabled and an explicit workload_pool is not
  specified, the workload rules defined in workload_rules.conf try to put the
  search into a proper pool as specified in some rule. If there is no rule
  defined for this search, the default_pool defined in workload_pools.conf is
  used.
```

告警抑制/严重性/失效/追踪/查看设置

```
alert.suppress = <boolean>
* Specifies whether alert suppression is enabled for this scheduled search.
* Default: false

alert.suppress.period = <time-specifier>
* Sets the suppression period. Use [number][time-unit] to specify a time.
* For example: 60 = 60 seconds, 1m = 1 minute, 1h = 60 minutes.
* Honored if and only if 'alert.suppress = 1'.
* Default: empty string

alert.suppress.fields = <comma-delimited-field-list>
```

```
* List of fields to use when suppressing per-result alerts. This field *must*
  be specified if the digest mode is disabled and suppression is enabled.
* Default: empty string.

alert.suppress.group_name = <string>
* Optional.
* Use this setting to define an alert suppression group for a set of alerts
  that are running over the same or very similar datasets. Do this to avoid
  getting multiple triggered alert notifications for the same data.
* All alerts with the same 'alert.suppress.group_name' value are in the same
  alert suppression group, as long as they are all owned by the same user.
  * Alerts belonging to different users cannot be included in the same
    suppression group, even if they all have the same 'group_name'.
* When an alert within an alert suppression group is triggered, all of the
  alerts in the group are suppressed for a period of time defined by the
  'alert.suppress.period' of the triggered alert. The triggered alert performs
  its alert actions, if it has any. The other alerts in the group do not
  perform their alert actions.
  * For example, say you have an alert suppression group with five alerts. Each
    of these alerts has a different 'alert.suppress.period' and a different
    alert action. If one alert from the group with an 'alert.suppress.period'
    of 5m and an email alert action is triggered, all of the alerts in the
    group are suppressed for 5m. However, only one alert action happens: the
    email for the triggering alert.
* Default: empty string.

alert.severity = <integer>
* Sets the alert severity level.
* Valid values are: 1-debug, 2-info, 3-warn, 4-error, 5-severe, 6-fatal
* Default: 3

alert.expires = <time-specifier>
* Sets the period of time to show the alert on the Triggered Alerts page.
  * Use [number][time-unit] to specify a time.
  * For example: 60s = 60 seconds, 1m = 1 minute, 1h = 60 minutes = 1 hour etc
* This setting is only honored when 'alert.track = true' (when the "Add to
  Triggered Alerts" action is selected for the alert in Splunk Web).
* This property is valid until splunkd restarts. Restart clears the listing of
  triggered alerts.
* Default: 24h

alert.digest_mode = <boolean>
* Specifies whether Splunk applies the alert actions to the entire result set
  or to each individual result.
* Default: true

alert.track = <boolean> | auto
* Specifies whether to track the actions triggered by this scheduled search.
  * auto - determine whether to track or not based on the tracking setting of
    each action, do not track scheduled searches that always trigger actions.
  * true - force alert tracking.
  * false - disable alert tracking for this search.
* Default: auto

alert.display_view = <string>
* Name of the UI view where the emailed link for each result alerts should
  point to.
* If not specified, the value of the 'request.ui_dispatch_app' setting is used.
  If the 'request.ui_dispatch_app' setting is missing then "search" is used.
* Default: empty string

alert.managedBy = <string>
* Specifies the feature or component that created the alert.
* Default: empty string
```

特定于 UI 的设置

```
displayview =<string>
* Defines the default UI view name (not label) in which to load the results.
* Accessibility is subject to the user having sufficient permissions.
* Default: empty string

vsid = <string>
* Defines the view state ID associated with the UI view listed in the
  'displayview' setting.
* Must match up to a stanza in the viewstates.conf file.
* Default: empty string

is_visible = <boolean>
* Specifies whether this saved search should be listed in the visible saved
  search list within apps.
* Saved searches are still visible when accessing the "Searches, reports,
  and alerts" page in Splunk Web.
* Default: true

description = <string>
* Human-readable description of this saved search.
* Default: empty string

request.ui_dispatch_app  = <string>
* Specifies a field used by Splunk UI to denote the app that this search
  should be dispatched in.
* Default: empty string

request.ui_dispatch_view = <string>
* Specifies a field used by Splunk UI to denote the view this search should be
  displayed in.
* Default: empty string
```

显示格式选项

```
# General options
display.general.enablePreview = [0 | 1]
display.general.type = [events|statistics|visualizations]
display.general.timeRangePicker.show = [0 | 1]
display.general.migratedFromViewState = [0 | 1]
display.general.locale = <string>

# Event options
display.events.fields = [<string>(, <string>)*]
display.events.type = [raw|list|table]
display.events.rowNumbers = [0 | 1]
display.events.maxLines = <integer>
display.events.raw.drilldown = [inner|outer|full|none]
display.events.list.drilldown = [inner|outer|full|none]
display.events.list.wrap = [0 | 1]
display.events.table.drilldown = [0 | 1]
display.events.table.wrap = [0 | 1]

# Statistics options
display.statistics.rowNumbers = [0 | 1]
display.statistics.wrap = [0 | 1]
display.statistics.overlay = [none|heatmap|highlow]
display.statistics.drilldown = [row|cell|none]
display.statistics.totalsRow = [0 | 1]
display.statistics.percentagesRow = [0 | 1]
display.statistics.show = [0 | 1]

# Visualization options
display.visualizations.trellis.enabled = [0 | 1]
display.visualizations.trellis.scales.shared = [0 | 1]
display.visualizations.trellis.size = [small|medium|large]
display.visualizations.trellis.splitBy = <string>
display.visualizations.show = [0 | 1]
display.visualizations.type = [charting|singlevalue|mapping|custom]
display.visualizations.chartHeight = <integer>
display.visualizations.charting.chart = [line|area|column|bar|pie|scatter|bubble|radialGauge|fillerGauge|markerGauge]
display.visualizations.charting.chart.stackMode = [default|stacked|stacked100]
display.visualizations.charting.chart.nullValueMode = [gaps|zero|connect]
display.visualizations.charting.chart.overlayFields = <string>
display.visualizations.charting.drilldown = [all|none]
display.visualizations.charting.chart.style = [minimal|shiny]
display.visualizations.charting.layout.splitSeries = [0 | 1]
display.visualizations.charting.layout.splitSeries.allowIndependentYRanges = [0 | 1]
display.visualizations.charting.legend.mode = [standard|seriesCompare]
display.visualizations.charting.legend.placement = [right|bottom|top|left|none]
display.visualizations.charting.legend.labelStyle.overflowMode = [ellipsisEnd|ellipsisMiddle|ellipsisStart]
display.visualizations.charting.axisTitleX.text = <string>
display.visualizations.charting.axisTitleY.text = <string>
display.visualizations.charting.axisTitleY2.text = <string>
display.visualizations.charting.axisTitleX.visibility = [visible|collapsed]
display.visualizations.charting.axisTitleY.visibility = [visible|collapsed]
display.visualizations.charting.axisTitleY2.visibility = [visible|collapsed]
display.visualizations.charting.axisX.scale = linear|log
display.visualizations.charting.axisY.scale = linear|log
display.visualizations.charting.axisY2.scale = linear|log|inherit
display.visualizations.charting.axisX.abbreviation = none|auto
display.visualizations.charting.axisY.abbreviation = none|auto
display.visualizations.charting.axisY2.abbreviation = none|auto
display.visualizations.charting.axisLabelsX.majorLabelStyle.overflowMode = [ellipsisMiddle|ellipsisNone]
display.visualizations.charting.axisLabelsX.majorLabelStyle.rotation = [-90|-45|0|45|90]
display.visualizations.charting.axisLabelsX.majorUnit = <decimal> | auto
display.visualizations.charting.axisLabelsY.majorUnit = <decimal> | auto
display.visualizations.charting.axisLabelsY2.majorUnit = <decimal> | auto
display.visualizations.charting.axisX.minimumNumber = <decimal> | auto
display.visualizations.charting.axisY.minimumNumber = <decimal> | auto
display.visualizations.charting.axisY2.minimumNumber = <decimal> | auto
display.visualizations.charting.axisX.maximumNumber = <decimal> | auto
display.visualizations.charting.axisY.maximumNumber = <decimal> | auto
display.visualizations.charting.axisY2.maximumNumber = <decimal> | auto
display.visualizations.charting.axisY2.enabled = [0 | 1]
display.visualizations.charting.chart.sliceCollapsingThreshold = <decimal>
display.visualizations.charting.chart.showDataLabels = [all|none|minmax]
display.visualizations.charting.gaugeColors = [<hex>(, <hex>)*]
display.visualizations.charting.chart.rangeValues = [<string>(, <string>)*]
display.visualizations.charting.chart.bubbleMaximumSize = <integer>
display.visualizations.charting.chart.bubbleMinimumSize = <integer>
display.visualizations.charting.chart.bubbleSizeBy = [area|diameter]
display.visualizations.charting.fieldColors = <string>
display.visualizations.charting.fieldDashStyles = <string>
display.visualizations.charting.lineWidth = <decimal>
display.visualizations.custom.drilldown = [all|none]
display.visualizations.custom.height = <integer>
display.visualizations.custom.type = <string>
display.visualizations.singlevalueHeight = <integer>
display.visualizations.singlevalue.beforeLabel = <string>
display.visualizations.singlevalue.afterLabel = <string>
display.visualizations.singlevalue.underLabel = <string>
display.visualizations.singlevalue.unit = <string>
display.visualizations.singlevalue.unitPosition = [before|after]
display.visualizations.singlevalue.drilldown = [all|none]
display.visualizations.singlevalue.colorMode = [block|none]
display.visualizations.singlevalue.rangeValues = [<string>(, <string>)*]
display.visualizations.singlevalue.rangeColors = [<string>(, <string>)*]
display.visualizations.singlevalue.trendInterval = <string>
display.visualizations.singlevalue.trendColorInterpretation = [standard|inverse]
display.visualizations.singlevalue.showTrendIndicator = [0 | 1]
display.visualizations.singlevalue.showSparkline = [0 | 1]
display.visualizations.singlevalue.trendDisplayMode = [percent|absolute]
display.visualizations.singlevalue.colorBy = [value|trend]
display.visualizations.singlevalue.useColors = [0 | 1]
display.visualizations.singlevalue.numberPrecision = [0|0.0|0.00|0.000|0.0000]
display.visualizations.singlevalue.useThousandSeparators = [0 | 1]
display.visualizations.mapHeight = <integer>
display.visualizations.mapping.type = [marker|choropleth]
display.visualizations.mapping.drilldown = [all|none]
display.visualizations.mapping.map.center = (<decimal>,<decimal>)
display.visualizations.mapping.map.zoom = <integer>
display.visualizations.mapping.map.scrollZoom = [0 | 1]
display.visualizations.mapping.map.panning    = [0 | 1]
display.visualizations.mapping.choroplethLayer.colorMode = [auto|sequential|divergent|categorical]
display.visualizations.mapping.choroplethLayer.maximumColor = <string>
display.visualizations.mapping.choroplethLayer.minimumColor = <string>
display.visualizations.mapping.choroplethLayer.colorBins = <integer>
display.visualizations.mapping.choroplethLayer.neutralPoint = <decimal>
display.visualizations.mapping.choroplethLayer.shapeOpacity = <decimal>
display.visualizations.mapping.choroplethLayer.showBorder = [0 | 1]
display.visualizations.mapping.markerLayer.markerOpacity = <decimal>
display.visualizations.mapping.markerLayer.markerMinSize = <integer>
display.visualizations.mapping.markerLayer.markerMaxSize = <integer>
display.visualizations.mapping.legend.placement = [bottomright|none]
display.visualizations.mapping.data.maxClusters = <integer>
display.visualizations.mapping.showTiles = [0 | 1]
display.visualizations.mapping.tileLayer.tileOpacity = <decimal>
display.visualizations.mapping.tileLayer.url = <string>
display.visualizations.mapping.tileLayer.minZoom = <integer>
display.visualizations.mapping.tileLayer.maxZoom = <integer>

# Patterns options
display.page.search.patterns.sensitivity = <decimal>

# Page options
display.page.search.mode = [fast|smart|verbose]
* This setting has no effect on saved search execution when dispatched by the
  scheduler. It only comes into effect when the search is opened in the UI and
  run manually.

display.page.search.timeline.format = [hidden|compact|full]
display.page.search.timeline.scale = [linear|log]
display.page.search.showFields = [0 | 1]
display.page.search.tab = [events|statistics|visualizations|patterns]
# Deprecated
display.page.pivot.dataModel = <string>
```

表格格式设置

```
# Format options
display.statistics.format.<index> = [color|number]
display.statistics.format.<index>.field = <string>
display.statistics.format.<index>.fields = [<string>(, <string>)*]

# Color format options
display.statistics.format.<index>.scale = [category|linear|log|minMidMax|sharedCategory|threshold]
display.statistics.format.<index>.colorPalette = [expression|list|map|minMidMax|sharedList]

# Number format options
display.statistics.format.<index>.precision = <integer>
display.statistics.format.<index>.useThousandSeparators = <boolean>
display.statistics.format.<index>.unit = <string>
display.statistics.format.<index>.unitPosition = [before|after]

# Scale options for 'category'
display.statistics.format.<index>.scale.categories = [<string>(, <string>)*]
```

```
# Scale options for 'log'
display.statistics.format.<index>.scale.base = <integer>

# Scale options for 'minMidMax'
display.statistics.format.<index>.scale.minType = [number|percent|percentile]
display.statistics.format.<index>.scale.minValue = <decimal>
display.statistics.format.<index>.scale.midType = [number|percent|percentile]
display.statistics.format.<index>.scale.midValue = <decimal>
display.statistics.format.<index>.scale.maxType = [number|percent|percentile]
display.statistics.format.<index>.scale.maxValue = <decimal>

# Scale options for 'threshold'
display.statistics.format.<index>.scale.thresholds = [<decimal>(, <decimal>)*]

# Color palette options for 'expression'
display.statistics.format.<index>.colorPalette.rule = <string>

# Color palette options for 'list'
display.statistics.format.<index>.colorPalette.colors = [<hex>(, <hex>)*]
display.statistics.format.<index>.colorPalette.interpolate = <boolean>

# Color palette options for 'map'
display.statistics.format.<index>.colorPalette.colors = {<string>:<hex>(, <string>:<hex>)*}

# Color palette options for 'minMidMax'
display.statistics.format.<index>.colorPalette.minColor = <hex>
display.statistics.format.<index>.colorPalette.midColor = <hex>
display.statistics.format.<index>.colorPalette.maxColor = <hex>
```

其他设置

```
embed.enabled = [0 | 1]
* Specifies whether a saved search is shared for access with a guestpass.
* The only acceptable values for this setting are 0 and 1.
* Search artifacts of a search can be viewed using a guestpass only if:
  * A token has been generated that is associated with this saved search.
    The token is associated with a particular user and app context.
  * The user to whom the token belongs has permissions to view that search.
  * The saved search has been scheduled and there are artifacts available.
    Only artifacts are available using guestpass. A search is never dispatched.
  * The saved search is not disabled, it is scheduled.
  * The saved search is not real-time.
  * The saved search is not an alert.

defer_scheduled_searchable_idxc = <boolean>
* Specifies whether to defer a continuous saved search during a searchable
  rolling restart or searchable rolling upgrade of an indexer cluster.
* Note: When disabled, a continuous saved search might return partial results.
* Default: false (disabled)

skip_scheduled_realtime_idxc = <boolean>
* Specifies whether to skip a continuous saved realtime search during a searchable
  rolling restart or searchable rolling upgrade of an indexer cluster.
* Note: When set to false, a continuous saved search might return partial results.
* Default: false (does not skip)

# DFS options
federated.provider = <federated-provider-stanza>
* Identifies the federated provider where this search has to run.
* Select a federated provider stanza defined in your federated.conf file.
* No default.
```

弃用设置

```
sendresults = <boolean>
* Use the 'action.email.sendresult' setting.

action_rss = <boolean>
* Use the 'action.rss' setting.

action_email = <string>
* Use the 'action.email' and 'action.email.to' settings.

role = <string>
* See saved search permissions.

userid = <string>
* See saved search permissions.

query = <string>
* Use the 'search' setting.

nextrun  = <integer>
* Not used anymore. The scheduler maintains this info internally.

qualifiedSearch = <string>
* Not used anymore. Splunk software computes this value during runtime.
```

savedsearches.conf.example

```
#   Version 8.2.0
#
# This file contains example saved searches and alerts.
#
# To use one or more of these configurations, copy the configuration block into
# savedsearches.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# The following searches are example searches.  To create your own search,
# modify the values by following the spec outlined in savedsearches.conf.spec.


[Daily indexing volume by server]
search = index=_internal todaysBytesIndexed LicenseManager-Audit NOT source=*web_service.log NOT source=*web_access.log | eval
Daily
_Indexing_Volume_in_MBs = todaysBytesIndexed/1024/1024 | timechart avg(Daily_Indexing_Volume_in_MBs) by host
dispatch.earliest_time = -7d

[Errors in the last 24 hours]
search = error OR failed OR severe OR ( sourcetype=access_* ( 404 OR 500 OR 503 ) )
dispatch.earliest_time = -1d

[Errors in the last hour]
search = error OR failed OR severe OR ( sourcetype=access_* ( 404 OR 500 OR 503 ) )
dispatch.earliest_time = -1h

[KB indexed per hour last 24 hours]
search = index=_internal metrics group=per_index_thruput NOT debug NOT sourcetype=splunk_web_access | timechart fixedrange=t
span=1h
 sum(kb) | rename sum(kb) as totalKB
dispatch.earliest_time = -1d

[Messages by minute last 3 hours]
```

```
search = index=_internal eps "group=per_source_thruput" NOT filetracker | eval events=eps*kb/kbps | timechart fixedrange=t
span=1m s
um(events) by series
dispatch.earliest_time = -3h

[Splunk errors last 24 hours]
search = index=_internal " error " NOT debug source=*/splunkd.log*
dispatch.earliest_time = -24h

## Federated Datasets
[search-sf-usage]
search = search index=sf_index | stats count by user
federated.provider = deployment-sf-search

[search-sf-hr]
search = | union [search index=sf_index] [search index=hr_index] | stats count by user
federated.provider = deployment-sf-hr

[search-sr]
search = search index=sr_index | join left=L right=R L.user=R.group [ search index=hr_index]
federated.provider = deployment-sr-search

[stats with durable search]
search = index=_internal eps | stats avg(eps) as avg, max(eps) as max, min(eps) as min
dispatch.indexed_earliest = -30m
dispatch.indexed_latest   = now

durable.track_time_type   = _indextime
durable.lag_time          = 60
durable.backfill_type     = time_interval
durable.max_backfill_intervals = 100
```

searchbnf.conf

以下为 searchbnf.conf 的规范和示例文件。

searchbnf.conf.spec

```
#   Version 8.2.0
#
#
```

概览

```
# This file contains descriptions of the settings that you can use to
# configure the search assistant to display information in the
# UI about custom search commands.
#
# Each stanza in your local searchbnf.conf file controls a separate
# custom search command or an option to a command.
#
# There is a searchbnf.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# which is used to display information about the built-in search commands
# in the UI through the search assistant.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their
# original location.
#
# To set custom configurations, create a new file with the name
# "searchbnf.conf" in the
# $SPLUNK_HOME/etc/apps/<appname>/default/ directory.
# Then add the custom commands to the custom configuration file.
# For examples, see the "searchbnf.conf.example" file.
```

```
#
# You must restart the Splunk instance to enable configuration changes.
#
# To learn more about configuration files, including precedence, see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

常规格式

```
# * Adjacent tokens implicitly allow no whitespace.
# * All literals are case-insensitive.
# * Whitespace (including newlines) match \s+
#
```

描述格式

```
# * For the command description, when automatically converted to html
#   multiple whitespaces are removed.
# * For descriptions that extend to multiple lines end each line with
#   a backslash "\", except the last line.
# * To create a multi-paragraph description, use \p\ to cause a paragraph
#   break.
# * To force a new line and indent, use \i\ to cause a newline and
#   indent 4 spaces (<br>&nbsp;&nbsp;&nbsp;&nbsp;)
# * <terms> are italicized.
# * UPPERCASETERMS and quoted terms are put into <code/> and render in
#   green text, in a slightly smaller font.
#
```

语法格式

```
# * Reserved characters are ("<>()|?*+") and <tokens>, everything else
#   is taken literally. Those characters need to be quoted.
#   Use \"  to represent a quote.
# * This file uses regex-like grouping and nomenclature for the syntax:
#      (): grouping
#      <term> : <term> is required
#      (<term>)? : <term> is optional
#      (<term>)* : <term> is optional and repeated 0 or more times
#      (<term>)+ : <term> is required and repeated 1 or more times
#
# * <terms> can be named for readability with a colon and a default value
#   For example, if you have a term called "field", instead of the
#   syntax "...<field> AS <field>" you can add a qualifer to the term
#   name, such as "<field:fromfield> AS <field:tofield>" and then define
#   "field" as a <string>.
```

段落

```
# There are two types of stanzas, search command stanzas and options stanzas.
#
#[<command-name>-command]
# * The command stanza contains the name of the custom search command
#   and "-command" enclosed in square brackets.
#   For example, "geocode-command".
# * A searchbnf.conf file can contain multiple command stanzas,
#   one command stanza for each command.
# * Follow the command stanza with attribute/value pairs that define
#   the properties for the custom search command.
#   Some attributes are required. See ATTRIBUTES.
# * If you do not set an attribute for a given <spec>, the default
#   is used. The default values are empty.
# * Search command syntax can refer to command options. These options
#   must be defined below the command stanza in separate options stanzas.
#   It is possible to use nested options stanzas.
#   For example:
#
#   [geocode-command]
#   syntax = geocode (geocode-options)*
#   ...
#   [geocode-options]
#   syntax = (maxcount=<int>) | (maxhops=<int>) | (coordinate-options)+
#   ...
#   [coordinate-options]
#   syntax = (latitude-field=<string>) | (longitude-field=<string>)
#   ...
#
```

命令段落结构

```
#
# [<command-name>-command]
# syntax (Required)
# simplesyntax (Optional)
# alias (Optional)
# description (Required)
# shortdesc (Optional)
# example<number> (Optional)
# comment<number> (Optional)
# usage (Required)
# tags (Required)
# maintainer (Optional)
# appears-in (Optional)
# related (Optional)
```

属性

```
# The attribute/value pair descriptions for custom search commands.

syntax = <string>
* The syntax of the custom search command. The format is:
  syntax=<command-name> (attribute-name=<datatype>) (attribute-name=<datatype>)
* See SYNTAX FORMATTING.
* Required

simplesyntax = <string>
* Simpler version of the syntax to make it easier to understand,
  at the expense of completeness. Use only if the syntax is complex.
* Typically the simplesyntax removes rarely used options or alternate
  ways of saying the same thing.
* For example, a search command might accept values such as
  "m|min|mins|minute|minutes", but that would unnecessarily clutter
  the syntax description for the user. For the simplesyntax you can
  use one value such as "minute".
* Optional

alias = <alias list>
* Alternative names for the search command.
  Specifying an alias is discouraged.
  Users might get confused when more than one name is used for the
  same command.
```

```
* Optional

description = <string>
* A detailed description of the search command.
  See DESCRIPTION FORMATTING.
* If a shortdesc is specified, the description appears only in the
  search assistant "Full" mode. Displays under the heading "Details"
  when users click "More".
* See the "searchbnf.conf.example" file for an example.
* Required

shortdesc = <string>
* A one sentence description of the search command. If specified,
  appears in both the "Full" and "Compact" search assistant modes.
* Specify a shortdesc when the description is multiple sentences long.
* Optional

example<number> = <string>
comment<number> = <string>
* The "example" should show a common example of using the search command,
   with 1 or more attributes.
* The "comment" should explain what the command is doing in the example.
* You can specify multiple examples by appending a matching number to
  the example and corresponding comment.
* For example:
    example1 = geocode maxcount=4
    comment1 = run geocode on up to four values
    example2 = geocode maxcount=-1
    comment2 = run geocode on all values
* In Compact mode, only the first example displays in the search assistant.
* In Full mode, the top three examples display in the search assistant.
* Optional, but recommended

usage = public | private | deprecated
* Specifies if a command is public, private, or deprecated.
* The search assistant only operates on public commands.
* Required

tags = <tag list>
* One or more words that users might type into the search bar which are
  similar to the command name. The UI displays the command names
  associated with the tags.
* For example, when a user types "graph" or "report" for the "chart"
  command.
* Optional

maintainer = <name>
* The name of person who originally worked on the command or who is
  responsible for the command now.
* Does not appear in the search assistant.
* Optional

appears-in = <version>
* The version that the custom command first appeared in.
* Does not appear in the search assistant.
* Optional

related = <command list>
* List of SPL commands related to this command.
* Might help users learn about other, related commands.
* Displays in the search assistant Full mode when users click "More".
* Optional
```

searchbnf.conf.example

```
#   Version 8.2.0
```

```
#
# The following are example stanzas for searchbnf.conf configurations.
#

##################
# selfjoin
##################
[selfjoin-command]
syntax = selfjoin (<selfjoin-options>)* <field-list>
shortdesc = Join results with itself.
description = Join results with itself.  Must specify at least one field to join on.
usage = public
example1 = selfjoin id
comment1 = Joins results with itself on 'id' field.
related = join
tags = join combine unite

[selfjoin-options]
syntax = overwrite=<bool> | max=<int> | keepsingle=<int>
description = The selfjoin joins each result with other results that\
  have the same value for the join fields.  'overwrite' controls if\
  fields from these 'other' results should overwrite fields of the\
  result used as the basis for the join (default=true).  max indicates\
  the maximum number of 'other' results each main result can join with.\
  (default = 1, 0 means no limit).  'keepsingle' controls whether or not\
  results with a unique value for the join fields (and thus no other\
  results to join with) should be retained.  (default = false)
```

segmenters.conf

以下为 segmenters.conf 的规范和示例文件。

segmenters.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure the segmentation of events.
#
# There is a segmenters.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name segmenters.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see segmenters.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# NOTE: Keep in mind the following limitations when working with event segmentation:
#       1) The segmenters.conf file must not have conflicting definitions for
#          different installed apps. This means that definitions within a
#          segmenters.conf that is installed in one app cannot directly conflict
#          with definitions within a segmenters.conf that is installed
#          in another app.
#       2) Definitions within segmenters.conf must match between search heads
#          and search peers.
#       3) Definitions in segmenters.conf must be visible in the global context,
#          either within a [default] stanza, or outside of any stanza.
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each .conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file takes precedence.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

[<SegmenterName>]

```
* Name your stanza.
* Follow this stanza name with any number of the following setting/value
  pairs.
* If you don't specify a setting/value pair, Splunk will use the default.

MAJOR = <space separated list of breaking characters>
* Set major breakers.
* Major breakers are words, phrases, or terms in your data that are surrounded
  by set breaking characters.
* By default, major breakers are set to most characters and blank spaces.
* Typically, major breakers are single characters.
* Note: \s represents a space; \n, a newline; \r, a carriage return; and
  \t, a tab.
* Default is [ ] <> ( ) { } | ! ; , ' " * \n \r \s \t & ? + %21 %26 %2526 %3B %7C %20 %2B %3D --
 %2520 %5D %5B %3A %0A %2C %28 %29


MINOR = <space separated list of strings>
* Specifies minor breakers.
* In addition to the segments specified by the major breakers, for each minor
  breaker found, Splunk indexes the token from the last major breaker to the
  current minor breaker and from the last minor breaker to the current minor
  breaker.
* Default: / : = @ . - $ # % \\ _

INTERMEDIATE_MAJORS =  true | false
* Set this to "true" if you want an IP address to appear in typeahead as
  a, a.b, a.b.c, a.b.c.d
* The typical performance hit by setting to "true" is 30%.
* Default: false

FILTER = <regular expression>
* If specified, segmentation will only take place if the regular expression matches.
* Furthermore, segmentation will only take place on the first group of the
  matching regex.
* Default: None

LOOKAHEAD = <integer>
* Specifies how far into a given event, in characters, the Splunk segments.
* LOOKAHEAD is applied after any FILTER rules.
* To disable segmentation, set to 0.
* Default: -1 (read the whole event)

MINOR_LEN = <integer>
* Specifies how long a minor token can be.
* Longer minor tokens are discarded without prejudice.
* Default: -1

MAJOR_LEN = <integer>
* Specifies how long a major token can be.
* Longer major tokens are discarded without prejudice.
* Default: -1.

MINOR_COUNT = <integer>
* Specifies how many minor segments to create for each event.
* After the specified number of minor segments are created, later minor segments are
  discarded without prejudice.
* Default: -1

MAJOR_COUNT = <integer>
* Specifies how many major segments are created for each event.
* After the specified number of major segments are created, later segments
  are discarded without prejudice.
* Default: -1
```

segmenters.conf.example

```
#   Version 8.2.0
#
# The following are examples of segmentation configurations.
#
# To use one or more of these configurations, copy the configuration block into
# segmenters.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


# Example of a segmenter that doesn't index the date as segments in syslog
# data:

[syslog]
FILTER = ^.*?\d\d:\d\d:\d\d\s+\S+\s+(.*)$


# Example of a segmenter that only indexes the first 256b of events:

[limited-reach]
LOOKAHEAD = 256


# Example of a segmenter that only indexes the first line of an event:

[first-line]
FILTER = ^(.*?)(\n|$)


# Turn segmentation off completely:

[no-segmentation]
LOOKAHEAD = 0
```

server.conf

以下为 server.conf 的规范和示例文件。

server.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains settings and values to configure server options
# in server.conf.
#
# Each stanza controls different search commands settings.
#
# There is a server.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name server.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see server.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza at the top
#     of the file.
#   * Each configuration file should have at most one default stanza.
#     If you have multiple default stanzas, settings are combined. If you
#     have multiple definitions of the same settings, the last definition
#     in the file wins.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

一般服务器配置

```
[general]
serverName = <ASCII string>
* The name that identifies this Splunk software instance for features such as
  distributed search.
* Cannot be an empty string.
* Can contain environment variables.
* After any environment variables are expanded, the server name
  (if not an IPv6 address) can only contain letters, numbers, underscores,
  dots, and dashes. The server name must start with a letter, number, or an
  underscore.
* Default: <hostname>-<user_running_splunk>

hostnameOption = [ fullyqualifiedname | clustername | shortname ]
* The type of information to use to determine how splunkd sets the 'host' value for a Windows
  Splunk platform instance when you specify an input stanza with 'host = $decideOnStartup'.
* Applies only to Windows hosts, and only for input stanzas that use the
  "host = $decideOnStartup" setting and value.
* Valid values are "fullyqualifiedname", "clustername", and "shortname".
* The value returned for the 'host' field depends on Windows DNS, NETBIOS,
  and what the name of the host is.
  * 'fullyqualifiedname' uses Windows DNS to return the fully qualified host name as the value.
  * 'clustername' also uses Windows DNS, but sets the value to the domain and machine name.
  * 'shortname' returns the NETBIOS name of the machine.
* Cannot be an empty string.
* Default: shortname

sessionTimeout = <nonnegative integer>[s|m|h|d]
* The amount of time before a user session times out, expressed as a
  search-like time range.
* Examples include "24h" (24 hours), "3d" (3 days),
  "7200s" (7200 seconds, or two hours)
* Default: "1" (1 hour)

trustedIP = <IP address>
* All logins from specified IP addresses are trusted. This means a
  password is no longer required.
* Only set this if you are using Single Sign-On (SSO).

allowRemoteLogin = always|never|requireSetPassword
* Controls remote management by restricting general login. Note that this
  does not apply to trusted SSO logins from a trustedIP.
* When set to "always", all remote login attempts are allowed.
* When set to "never", only local logins to splunkd are allowed. Note that this
  still allows remote management through Splunk Web if Splunk Web is on
  the same server.
* If set to "requireSetPassword":
  * In the free license, remote login is disabled.
  * In the pro license, remote login is disabled for the "admin" user if
    the default password of "admin" has not been changed.
* NOTE: As of version 7.1, Splunk software does not support the use of default
  passwords. The "requireSetPassword" value is deprecated and might be removed
  in the future.
* Default: requireSetPassword

tar_format = gnutar|ustar
* Sets the default TAR format.
* Default: gnutar

access_logging_for_phonehome = <boolean>
* Enables/disables logging to the splunkd_access.log file for client phonehomes.
* Default: true (logging enabled)

hangup_after_phonehome = <boolean>
* Controls whether or not the deployment server hangs up the connection
  after the phonehome is done.
* By default, persistent HTTP 1.1 connections are used with the server to
  handle phonehomes. This might show higher memory usage if you have a large
  number of clients.
* If you have more than the maximum recommended concurrent TCP connection
  deployment clients, persistent connections can not help with the reuse of
  connections. Setting this attribute to true helps bring down memory usage.
* Default: false (persistent connections for phonehome)

pass4SymmKey = <password>
* Authenticates traffic between:
  * License master and its license slaves.
  * Members of a cluster.
  * Deployment server (DS) and its deployment clients (DCs).
* When authenticating members of a cluster, clustering might override the
  passphrase specified in the clustering stanza. A clustering searchhead
  connecting to multiple managers might further override in the
  [clustermanager:stanza1] stanza.
* When authenticating deployment servers and clients, by default, DS-DCs
  passphrase authentication is disabled. To enable DS-DCs passphrase
  authentication, you must also add the following line to the [broker:broker]
  stanza in the restmap.conf file: requireAuthentication = true
* In all scenarios, every node involved must set the same passphrase in
```

```
  the same stanzas. For example in the [general] stanza and/or
  [clustering] stanza. Otherwise, the respective communication does not proceed:
    - licensing and deployment in the case of the [general] stanza
    - clustering in case of the [clustering] stanza)
* Unencrypted passwords must not begin with "$1$". This is used by
  Splunk software to determine if the password is already encrypted.

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12

listenOnIPv6 = no|yes|only
* By default, splunkd listens for incoming connections (both REST and
  TCP inputs) using IPv4 only.
* When you set this value to "yes", splunkd simultaneously listens for
  connections on both IPv4 and IPv6.
* To disable IPv4 entirely, set listenOnIPv6 to "only". This causes splunkd
  to exclusively accept connections over IPv6. You might need to change
  the mgmtHostPort setting in the web.conf file. Use '[::1]' instead of
  '127.0.0.1'.
* Any setting of SPLUNK_BINDIP in your environment or the
  splunk-launch.conf file overrides the listenOnIPv6 value.
  In this case splunkd listens on the exact address specified.

connectUsingIpVersion = auto|4-first|6-first|4-only|6-only
* When making outbound TCP connections for forwarding event data, making
  distributed search requests, etc., this setting controls whether the
  connections are made using IPv4 or IPv6.
* Connections to literal addresses are unaffected by this setting. For
  example, if a forwarder is configured to connect to "10.1.2.3" the
  connection is made over IPv4 regardless of this setting.
* "auto:"
    * If listenOnIPv6 is set to "no", the Splunk server follows the
      "4-only" behavior.
    * If listenOnIPv6 is set to "yes", the Splunk server follows "6-first"
    * If listenOnIPv6 is set to "only", the Splunk server follow
      "6-only" behavior.
* "4-first:" If a host is available over both IPv4 and IPv6, then
  the Splunk server connects over IPv4 first and falls back to IPv6 if the
  connection fails.
* "6-first": splunkd tries IPv6 first and fallback to IPv4 on failure.
* "4-only": splunkd only attempts to make connections over IPv4.
* "6-only": splunkd only attempts to connect to the IPv6 address.
* Default: auto. This means that the Splunk server selects a reasonable
  value based on the listenOnIPv6 setting.

guid = <globally unique identifier for this instance>
* This setting (as of version 5.0) belongs in the [general] stanza of
  SPLUNK_HOME/etc/instance.cfg file. See the .spec file of instance.cfg for
  more information.

useHTTPServerCompression = <boolean>
* Specifies whether the splunkd HTTP server should support gzip content
  encoding. For more info on how content encoding works, see Section 14.3
  of Request for Comments: 2616 (RFC2616) on the World Wide Web Consortium
  (W3C) website.
* Default: true

defaultHTTPServerCompressionLevel = <integer>
* If the useHTTPServerCompression setting is enabled (it is enabled
  by default), this setting controls the compression level that the
  Splunk server attempts to use.
* This number must be between 1 and 9.
* Higher numbers produce smaller compressed results but require more CPU
  usage.
* Default: 6 (This is appropriate for most environments)

skipHTTPCompressionAcl = <network_acl>
* Lists a set of networks or addresses to skip data compression.
  These are addresses that are considered so close that network speed is
  never an issue, so any CPU time spent compressing a response is wasteful.
* Note that the server might still respond with compressed data if it
  already has a compressed version of the data available.
* These rules are separated by commas or spaces.
* Each rule can be in the following forms:
    1. A single IPv4 or IPv6 address, for example: "10.1.2.3", "fe80::4a3"
    2. A CIDR block of addresses, for example: "10/8", "fe80:1234/32"
    3. A DNS name, possibly with a '*' used as a wildcard, for example:
       "myhost.example.com", "*.splunk.com")
    4. A single '*' which matches anything
* Entries can also be prefixed with '!' to negate their meaning.
* Default: localhost addresses

legacyCiphers = decryptOnly|disabled
* This setting controls how Splunk software handles support for
  legacy encryption ciphers.
* If set to "decryptOnly", Splunk software supports decryption of
  configurations that have been encrypted with legacy ciphers.
  It encrypts all new configurations with newer and stronger cyphers.
* If set to "disabled", Splunk software neither encrypts nor decrypts
  configurations that have been encrypted with legacy ciphers.
* Default: decryptOnly

site = <site-id>
* Specifies the site that this Splunk instance belongs to when multisite is
  enabled.
* Valid values for site-id include site0 to site63
* The special value "site0" can be set only on search heads or on forwarders
  that are participating in indexer discovery.
  * For a search head, "site0" disables search affinity.
  * For a forwarder participating in indexer discovery, "site0" causes the
    forwarder to send data to all peer nodes across all sites.

useHTTPClientCompression = true|false|on-http|on-https
* Specifies whether gzip compression should be supported when splunkd acts
  as a client (including distributed searches). Note: For the content to
  be compressed, the HTTP server that the client is connecting to should
  also support compression.
* If the connection is being made over https and
  "useClientSSLCompression=true", then setting "useHTTPClientCompression=true"
  results in double compression work without much compression gain. To
  mitigate this, set this value to "on-http" (or to "true", and
  useClientSSLCompression to "false").
* Default: true

embedSecret = <string>
* When using report embedding, normally the generated URLs can only
  be used on the search head that they were generated on.
* If "embedSecret" is set, then the token in the URL is encrypted
  with this key.  Then other search heads with the exact same setting
  can also use the same URL.
* This is needed if you want to use report embedding across multiple
  nodes on a search head pool.

parallelIngestionPipelines = <integer>
* The number of discrete data ingestion pipeline sets to create for this
  instance.
* A pipeline set handles the processing of data, from receiving streams
  of events through event processing and writing the events to disk.
* An indexer that operates multiple pipeline sets can achieve improved
  performance with data parsing and disk writing, at the cost of additional
  CPU cores.
```

```
* For most installations, the default setting of "1" is optimal.
* Use caution when changing this setting. Increasing the CPU usage for data
  ingestion reduces available CPU cores for other tasks like searching.
* NOTE: Enabling multiple ingestion pipelines can change the behavior of some
  settings in other configuration files. Each ingestion pipeline enforces
  the limits of the following settings independently:
    1. maxKBps (in the limits.conf file)
    2. max_fd (in the limits.conf file)
    3. maxHotBuckets (in the indexes.conf file)
    4. maxHotSpanSecs (in the indexes.conf file)
* Default: 1

pipelineSetSelectionPolicy = <round_robin | weighted_random>
* Specifies the pipeline set selection policy to use while selecting pipeline
  sets for new inputs.
* If set to round_robin, the incoming inputs are assigned to pipeline sets in a
  round robin fashion.
* If set to weighted_random, the incoming inputs are assigned to pipeline sets
  using a weighted random scheme designed to even out the CPU usage of each
  pipeline set.
* NOTE: This setting only takes effect when parallelIngestionPipelines is
  greater than 1.
* Default: round_robin

pipelineSetWeightsUpdatePeriod = <number>
* The interval, in seconds, when pipeline set weights are recalculated for the
  weighted_random pipeline set selection policy.
* Reducing this interval causes pipeline set weights to be re-evaluated more
  frequently, thereby enabling the system to react more quickly to changes in
  dutycycle estimation.
* Increasing this interval causes pipeline set weights to be re-evaluated less
  frequently, thereby reducing the likelihood of the system responding to
  bursty events.
* Default: 30

pipelineSetNumTrackingPeriods = <number>
* The number of look-back periods, of interval pipelineSetWeightsUpdatePeriod,
  that are used to keep track of incoming ingestion requests for pipeline sets.
* This information is used as a heuristic to calculate the pipeline set weights
  at every expiry of pipelineSetWeightsUpdatePeriod.
* Default: 5

pipelineSetChannelSetCacheSize = <integer>
* Maximum number of inactive channels to be stored in the per-pipeline set
  cache to reduce load in the configuration management system.
* Currently only affects ingestion via the HTTP Event Collector.
* Increasing this setting should reduce the number of created channels
  reported in metrics.log under the 'channel_cache' group. If neither that
  group nor the 'created' field exists in metrics.log, increasing this
  value has no effect.
* Default: 12

instanceType = <string>
* Should not be modified by users.
* Informs components (such as the Splunk Web Manager section) which
  environment the Splunk server is running in, to allow for more
  customized behaviors.
* Default: download

requireBootPassphrase = <boolean>
* Prompt the user for a boot passphrase when starting splunkd.
* Splunkd uses this passphrase to grant itself access to platform-provided
  secret storage facilities, like the GNOME keyring.
* For more information about secret storage, see the [secrets] stanza in
  $SPLUNK_HOME/etc/system/README/authentication.conf.spec.
* Default (if Common Criteria mode is enabled): true
* Default (if Common Criteria mode is disabled): false

numThreadsForIndexInitExecutor = <positive integer>
```

```
* Number of threads that can be used by the index init thread pool.
* Maximum accepted value for this setting is 32.
* Default: 16

remoteStorageRecreateIndexesInStandalone = <boolean>
* Controls re-creation of remote storage enabled indexes in standalone mode.
* Default: true

cleanRemoteStorageByDefault = <boolean>
* Allows 'splunk clean eventdata' to clean the remote indexes when set to true.
* Default: false

recreate_index_fetch_bucket_batch_size = <positive_integer>
* Controls the maximum number of bucket IDs to fetch from remote storage
  as part of a single transaction for a remote storage enabled index.
* Only valid for standalone mode.
* Default: 500

recreate_bucket_fetch_manifest_batch_size = <positive_integer>
* Controls the maximum number of bucket manifests to fetch in parallel
  from remote storage.
* Only valid for standalone mode.
* Default: 100

splunkd_stop_timeout = <positive_integer>
* The maximum time, in seconds, that splunkd waits for a graceful shutdown to
  complete before splunkd forces a stop.
* Default: 360 (6 minutes)

decommission_search_jobs_wait_secs = <unsigned integer>
* The maximum time, in seconds, that splunkd waits for running searches to complete
  during a shutdown_decommission_search.
* To trigger this type of shudown, post to 'services/server/control/shutdown_decommission_search'
* If set to 0, splunkd does not wait, and all searches in progress will fail.
* If this search head is a member of a search head cluster, use 'decommission_search_jobs_wait_secs'
  in the [shclustering] stanza instead.
* NOTE: If this search head is a node of an indexer cluster, use 'decommission_search_jobs_wait_secs'
  in the [clustering] stanza instead.
* Default: 0

python.version = {python2|python3|force_python3}
* For Python scripts only, sets the default Python version to use.
* Can be overridden by other 'python.version' values elsewhere, with the
  following exception:
* If you set to "force_python3", the system always uses Python 3, and ignores
  'python.version' values that you set elsewhere.
* Default: python3

roll_and_wait_for_uploads_at_shutdown_secs = <non-negative number>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Default: 0 (disabled)

preShutdownCleanup = <bool>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies if indexer waits to complete any indexing activities before continuing with shutdown.
* Default: true

reset_manifests_on_startup = <boolean>
* Whether or not the Splunk platform instance regenerates size retention
  information for index bucket summaries that have been stored in the
  manifest.csv files.
* Configuring this setting lets the platform instance have the most
  up-to-date size retention information immediately after startup.
* When set to true, the size retention information for summaries stored
  in the manifest.csv files are removed and regenerated during startup.
* When set to false, manifest.csv files are not reset during startup.
* Default: true
```

```
percent_manifests_to_reset = <percentage>
* In order to minimize the cost of resetting all manifest.csv files at once
  the manifest.csv files are separated in groups that are processed separately.
* This percentage defines how many manifest.csv files each group will reset.
* For example, a setting of 20 means each group resets 20% of all manifests
  resulting in 5 groups with 20% each.
* The minimum of one manifest.csv file will be processed per group.
* Legal values are between 0% and 100%.
* Default: 10%

regex_cache_hiwater = <integer>
* A threshold for the number of entries in the regex cache. If the regex cache
  grows larger than this, splunkd server will purge some of the older entries.
* When set to a negative value, no purge occurs, no matter how large
  the cache.
* Default: 2500
```

配置更改审计

```
[config_change_audit]
disabled = <boolean>
* Whether or not splunkd writes configuration changes to the
  configuration change log at $SPLUNK_HOME/var/log/splunk/configuration_change.log.
* If set to "false", configuration changes are captured in
  $SPLUNK_HOME/var/log/splunk/configuration_change.log.
* If set to "true", configuration changes are not captured
  in $SPLUNK_HOME/var/log/splunk/configuration_change.log.
* Default: true
mode = [auto|track-only]
* Set to "auto" or "track-only" to get log of .conf file changes
  under $SPLUNK_HOME/etc/system, $SPLUNK_HOME/etc/apps,
  $SPLUNK_HOME/etc/users, $SPLUNK_HOME/etc/slave-apps or changes to $SPLUNK_HOME/etc/instance.cfg.
* The values "auto" and "track-only" are identical in their effects. Set mode to "auto"
  to auto-enroll this deployment into all the latest features.
* CAUTION: This setting is experimental and is related to a feature that
  is still under development. Using the setting might increase resource usage.
* Default: auto
```

部署配置详情

```
[deployment]
pass4SymmKey = <passphrase string>
    * Authenticates traffic between the deployment server (DS) and its
      deployment clients (DCs).
    * By default, DS-DCs passphrase authentication key is disabled. To enable
      DS-DCs passphrase authentication, you must *also* add the following
      line to the [broker:broker] stanza in the restmap.conf file:
          requireAuthentication = true
    * If the key is not set in the [deployment] stanza, the key is looked
      for in the [general] stanza.
    * NOTE: Unencrypted passwords must not begin with "$1$", because this is
            used by Splunk software to determine if the password is already
            encrypted.

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
```

```
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12
```

SSL 配置详情

```
[sslConfig]
* Set SSL for communications on Splunk back-end under this stanza name.
  * NOTE: To set SSL (for example HTTPS) for Splunk Web and the browser,
   use the web.conf file.
* Follow this stanza name with any number of the following attribute/value
  pairs.
* If you do not specify an entry for each attribute, the default value
  is used.

enableSplunkdSSL = <boolean>
* Enables/disables SSL on the splunkd management port (8089) and KV store
  port (8191).
* NOTE: Running splunkd without SSL is not recommended.
* Distributed search often performs better with SSL enabled.
* Default: true

useClientSSLCompression = <boolean>
* Turns on HTTP client compression.
* Server-side compression is turned on by default. Setting this on the
  client-side enables compression between server and client.
* Enabling this potentially gives you much faster distributed searches
  across multiple Splunk instances.
* CAUTION: There are known performance issues due to SSL compression.
  Confirm that 'conf_deploy_precompress_bundles',
  'precompress_cluster_bundle', 'precompress_artifacts',
  'preCompressKnowledgeBundlesClassicMode', 'preCompressKnowledgeBundlesCascadeMode',
  and 'useHTTPClientCompression' are set to "false" before setting
 'useClientSSLCompression' to "true" to avoid double compression.
* Default: false

useSplunkdClientSSLCompression = <boolean>
* Controls whether SSL compression is used when splunkd is acting as
  an HTTP client, usually during certificate exchange, bundle replication,
  remote calls, etc.
* This setting is effective if, and only if, useClientSSLCompression
  is set to "true".
* NOTE: splunkd is not involved in data transfer in distributed search, the
  search in a separate process is.
* Default: true

sslVersions = <versions_list>
* Comma-separated list of SSL versions to support for incoming connections.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* The special version "*" selects all supported versions.
  The version "tls" selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version
  list but does nothing.
* When configured in FIPS mode, "ssl3" is always disabled regardless
  of this configuration.
* Default: The default can vary (see the 'sslVersions' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)

sslVersionsForClient = <versions_list>
* Comma-separated list of SSL versions to support for outgoing HTTP connections
  from splunkd.  This includes distributed search, deployment client, etc.
* This is usually less critical, since SSL/TLS always picks the highest
  version both sides support.  However, you can use this setting to prohibit
  making connections to remote servers that only support older protocols.
* The syntax is the same as the 'sslVersions' setting above.
* NOTE: For forwarder connections, there is a separate 'sslVersions'
  setting in the outputs.conf file. For connections to SAML servers, there
  is a separate 'sslVersions' setting in the authentication.conf file.
* Default: The default can vary (see the 'sslVersionsForClient' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)

supportSSLV3Only = <boolean>
* DEPRECATED.  SSLv2 is disabled.  The exact set of SSL versions
  allowed is configurable using the 'sslVersions' setting above.

sslVerifyServerCert = <boolean>
* This setting is used by distributed search and distributed
  deployment clients.
  * For distributed search: Used when making a search request
    to another server in the search cluster.
  * For distributed deployment clients: Used when polling a
    deployment server.
* If set to true, make sure that the connected server is
  authenticated. Both the common name and the alternate name
  of the server are checked for a match if they are specified
  in this configuration file. A certificate is considered
  verified if either is matched.
* Default: false

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* If set, and 'sslVerifyServerCert' is set to "true",
  splunkd limits most outbound HTTPS connections to hosts which
  use a certificate with one of the listed common names.
* The most important scenario is distributed search.
* Optional.
* No default (no common name checking.)

sslCommonNameList = <commonName1>, <commonName2>, ...
* DEPRECATED. Use the 'sslCommonNameToCheck' setting instead.

sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd also verifies certificates which have a so-called
  "Subject Alternate Name" that matches any of the alternate
  names in this list.
  * Subject Alternate Names are effectively extended descriptive
    fields in SSL certificates beyond the commonName. A common
    practice for HTTPS certificates is to use these values to
    store additional valid hostnames or domains where the
    certificate should be considered valid.
* Accepts a comma-separated list of Subject Alternate Names to
  consider as valid.
* Items in this list are never validated against the SSL Common Name.
* Optional.
* No default (no alternate name checking.)

requireClientCert = <boolean>
* Requires that any HTTPS client that connects to a splunkd
  internal HTTPS server has a certificate that was signed by a
  CA (Certificate Authority) specified by the 'sslRootCAPath' setting.
  * Used by distributed search: Splunk indexing instances must be
    authenticated to connect to another splunk indexing instance.
  * Used by distributed deployment: The deployment server requires that
    deployment clients are authenticated before allowing them to poll
    for new configurations/applications.
* If set to "true", a client can connect ONLY if a certificate
  created by our certificate authority was used on that client.
* Default: false

cipherSuite = <cipher suite string>
* If set, Splunk uses the specified cipher string for the HTTP server.
* If not set, Splunk uses the default cipher string provided by OpenSSL.
  This is used to ensure that the server does not accept connections using
  weak encryption protocols.
* Must specify 'dhFile' to enable any Diffie-Hellman ciphers.
* Default: The default can vary (See the 'cipherSuite' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)

ecdhCurveName = <string>
* DEPRECATED.
* Use the 'ecdhCurves' setting instead.
* This setting specifies the Elliptic Curve Diffie-Hellman (ECDH) curve to
  use for ECDH key negotiation.
* Splunk only supports named curves that have been specified by their
  SHORT name.
* The list of valid named curves by their short and long names
  can be obtained by running this CLI command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Default: empty string.

ecdhCurves = <comma-separated list>
* A list of ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of an SSL Client Hello.
* The server supports only the curves specified in the list.
* Splunk software only supports named curves that have been specified
  by their SHORT names.
* The list of valid named curves by their short and long names can be obtained
  by running this CLI command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Example setting: "ecdhCurves = prime256v1,secp384r1,secp521r1"
* Default: The default can vary (See the 'ecdhCurves' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)

serverCert = <path>
* The full path to the PEM (Privacy-Enhanced Mail) format server
  certificate file.
* Certificates are auto-generated by splunkd on starting Splunk Enterprise.
* You can replace the default certificate with your own PEM
  format file.
* Default: $SPLUNK_HOME/etc/auth/server.pem

sslKeysfile = <filename>
* DEPRECATED. Use the 'serverCert' setting instead.
* This file is in the directory specified by the 'caPath' setting
  (see below).
* Default: server.pem

sslPassword = <password>
* Server certificate password.
* Default: password

sslKeysfilePassword = <password>
* DEPRECATED. Use the 'sslPassword' setting instead.

sslRootCAPath = <path>
* Full path to the root CA (Certificate Authority) certificate store
  on the operating system.
* The <path> must refer to a PEM (Privacy-Enhanced Mail) format
  file containing one or more root CA certificates concatenated
  together.
* Required for Common Criteria.
* This setting is valid on Windows machines only if you have not set
  'sslRootCAPathHonoredOnWindows' to "false".
* No default.

sslRootCAPathHonoredOnWindows = <boolean>
* DEPRECATED.
* Whether or not the Splunk instance respects the 'sslRootCAPath' setting on
  Windows machines.
* If you set this setting to "false", then the instance does not respect the
  'sslRootCAPath' setting on Windows machines.
* This setting is valid only on Windows, and only if you have set
  'sslRootCAPath'.
* When the 'sslRootCAPath' setting is respected, the instance expects to find
  a valid PEM file with valid root certificates that are referenced by that
  path. If a valid file is not present, SSL communication fails.
* Default: true

caCertFile = <filename>
* DEPRECATED. Use the 'sslRootCAPath' setting instead.
* Used only if 'sslRootCAPath' is not set.
* File name (relative to 'caPath') of the CA (Certificate Authority)
  certificate PEM format file containing one or more certificates
  concatenated together.
* Default: cacert.pem

dhFile = <path>
* PEM (Privacy-Enhanced Mail) format Diffie-Hellman(DH) parameter file name.
* DH group size should be no less than 2048bits.
* This file is required in order to enable any Diffie-Hellman ciphers.
* No default.

caPath = <path>
* DEPRECATED. Use absolute paths for all certificate files.
* If certificate files given by other settings in this stanza are not absolute
  paths, then they are relative to this path.
* Default: $SPLUNK_HOME/etc/auth

certCreateScript = <script name>
* Creation script for generating certificates on startup of Splunk Enterprise.

sendStrictTransportSecurityHeader = <boolean>
* If set to "true", the REST interface sends a "Strict-Transport-Security"
  header with all responses to requests made over SSL.
* This can help avoid a client being tricked later by a
  Man-In-The-Middle attack to accept a non-SSL request.
  However, this requires a commitment that no non-SSL web hosts
  ever run on this hostname on any port. For
  example, if Splunk Web is in default non-SSL mode this can break the
  ability of a browser to connect to it.
* NOTE: Enable with caution.
* Default: false

allowSslCompression = <boolean>
* If set to "true", the server allows clients to negotiate
  SSL-layer data compression.
* KV Store also observes this setting.
* If set to "false", KV Store disables TLS compression.
* Default: true

allowSslRenegotiation = <boolean>
* In the SSL protocol, a client may request renegotiation of the
  connection settings from time to time.
* If set to "false", causes the server to reject all renegotiation
  attempts, breaking the connection.  This limits the amount of CPU a
  single TCP connection can use, but it can cause connectivity problems
  especially for long-lived connections.
* Default: true

sslClientSessionPath = <path>
* Path where all client sessions are stored for session re-use.
* Used if 'useSslClientSessionCache' is set to "true".
* No default.

useSslClientSessionCache = <boolean>
* Specifies whether to re-use client session.
* When set to "true", client sessions are stored in memory for
  session re-use. This reduces handshake time, latency and
  computation time to improve SSL performance.
* When set to "false", each SSL connection performs a full
  SSL handshake.
* Default: false

sslServerSessionTimeout = <integer>
* Timeout, in seconds, for newly created session.
* If set to "0", disables Server side session cache.
* The openssl default is 300 seconds.
* Default: 300 (5 minutes)

sslServerHandshakeTimeout = <integer>
* The timeout, in seconds, for an SSL handshake to complete between an
  SSL client and the Splunk SSL server.
* If the SSL server does not receive a "Client Hello" from the SSL client within
  'sslServerHandshakeTimeout' seconds, the server terminates
  the connection.
* Default: 60
```

数据结构搜索安全配置

```
[dfs_security]
* This stanza is for data fabric search (DFS) security configuration.
* Use a combination of the following settings to configure security for your
  DFS implementation. Most of the settings are optional, but some settings
  require that dependent settings also be set.
* All the settings in this stanza require 'enableSplunkdSSL' to be set to
  "true".

tls_enabled = <boolean>
* This setting enables your DFS implementation to use security certificates to
  secure data flows between compute nodes.
* The type of certificates that this setting enables DFS to use depends on
  whether additional settings are also set to "true".
* DFS uses default security certificates when 'tls_enabled' is set to "true"
  but 'use_spark_security_configs' and 'use_node_specific_certificates' are set
  to "false".
* Set 'use_spark_security_configs' and 'use_node_specific_certificates' to
  "true" to gain additional degrees of security hardening. These settings
  require additional Apache Spark configuration. See the setting descriptions
  for more information.
* See the Data Fabric Search manual for more information about DFS security
  configuration.
* Default: false

tls_protocol = [TLSv1.2]
* This setting is required when 'tls_enabled' is set to "true".
* DFS currently supports only TLSv1.2.
* Default: TLSv1.2

override_default_certificate = <boolean>
* This is an optional setting when:
  * tls_enabled = true
  * use_spark_security_configs = false
  * use_node_specific_certificates = false
* Use this setting if you do not want DFS to use the default security
  certificates (dfsks.jks and dfsts.jks in SPLUNK_HOME/etc/auth). It causes DFS
  to push a certificate that you have configured to the data fabric coordinator
  (DFC) and the data fabric worker(DFW) nodes. This secures communication
  between the DFC and the DFW nodes as well as the communication between DFW
  nodes and search peers.
* When you set 'override_default_certificate' to "true", you must define the
  following DFS security settings.
  * dfs_keystore_path
  * dfs_truststore_path
  * dfs_keystore_password
  * dfs_key_password
  * dfs_truststore_password
* Default: false

use_spark_security_configs = <boolean>
* This is an optional security setting for DFS. It requires 'tls_enabled' to be
  set to "true".
* When this setting is set to "true", DFS applies the Apache Spark security
  configurations instead of its default security settings.
* When this setting is set to "true", you must configure the following settings
  for each worker node in the Spark cluster:
  * spark.ssl.keyStore
  * spark.ssl.keyPassword
  * spark.ssl.keyStorePassword
  * spark.ssl.trustStore
  * spark.ssl.trustStorePassword
* Default: false

use_node_specific_certificates = <boolean>
* This is an optional security setting for DFS. It requires 'tls_enabled' to be
  set to "true".
* When this setting is set to "true", DFS uses certificates that you have
  configured on the Splunk search head and on each data fabric worker (DFW)
  node to secure DFS communication.
* When this setting is set to "true", you must configure the following settings
  for the data fabric coordinator (DFC) in the Splunk search head:
  * dfc_keystore_path
  * dfc_truststore_path
  * dfc_keystore_password
  * dfc_key_password
  * dfc_truststore_password
* In addition, you must configure the following settings for each of the DFW
  nodes:
  * dfw_keystore_path
  * dfw_truststore_path
  * dfw_keystore_password
  * dfw_key_password
  * dfw_truststore_password
* Default: false

verify_search_peer_to_dfw_client_certificate = <boolean>
* This is an optional security setting. It requires 'tls_enabled' to be set to
  "true".
* When this setting is set to "true", the data fabric worker (DFW) nodes verify
  the common name and alternative names of the certificates on the search
  peer they communicate with. DFW nodes can only have outbound TLS
  connections with search peers whose certificates pass this validation step.
* The common name used in the search peer certificate has to be a value of the
  'search_peer_to_dfw_common_name_list' setting.
* The alternative names used in the search peer certificate has to be a value
  of the 'search_peer_to_dfw_alt_name_list' setting.
* Default: false

search_peer_to_dfw_common_name_list = <commonName1>, <commonName2>, ...
* This setting is required when 'verify_search_peer_to_dfw_client_certificate'
  is set to "true".
* Provides a comma-separated list of valid common names for the search peer
  certificate.
* If this list is empty, the DFS workers skip the common name check to the search
  peers' certificate.
* Default: No default (No checks for search peer certificate's common name)

search_peer_to_dfw_alt_name_list = <alternateName1>, <alternateName2>, ...
* This setting is required when 'verify_search_peer_to_dfw_client_certificate'
  is set to "true".
* Provides a comma-separated list of valid alternative names for the search peer
  certificate.
```

```
* Items in this list are never validated against the 'search_peer_to_dfw_common_name_list'.
* If this list is empty, the DFS workers skip the alternative name check to
  the search peers' certificate.
* Default: No defailt (No checks for search peer certificate's alternative names)

legacy_ca_certificate_folder = <path>
* This is an optional security setting. It helps you provide DFS security for
  legacy Splunk platform deployments. Set it only when:
  * tls_enabled = true
  * use_spark_security_configs = false
  * use_node_specific_certificates = false
  * override_default_certificate = false
* Provides the path to a folder that contains Certificate Authority (CA)
  certificates for legacy Splunk platform.
* When the data fabric master (DFM) generates default certificates, it uses
  this setting to add the additional CA certificates in this folder to the
  trust store.
* Default: SPLUNK_HOME/etc/auth/dfsCACerts

dfs_keystore_path = <path>
* This setting is required when:
  * tls_enabled = true
  * override_default_certificate = true
  * use_spark_security_configs = false
  * use_node_specific_certificates = false
* Provides the path to the key store file on the search head. Splunk software
  pushes the key store to the data fabric coordinator (DFC) and the data fabric
  worker (DFW) nodes.
* The DFS key store file must include the following:
  * The public/private key pair.
  * A certificate export from that key pair and signed by a trusted Certificate
    Authority (CA).
* This key store is used to secure communication between:
  * the DFC and the DFW nodes.
  * the DFW nodes and the search peers.
* Default: empty string

dfs_truststore_path = <path>
* This setting is required when:
  * tls_enabled = true
  * override_default_certificate = true
  * use_spark_security_configs = false
  * use_node_specific_certificates = false
* Provides the path to the trust store file on the search head. Splunk
  software pushes the trust store to the data fabric coordinator (DFC) and the
  data fabric worker (DFW) nodes.
* This trust store file must include the following:
  * All trusted Certificate Authority (CA) certificates.
  * The certificate in dfs_keystore.
* The DFC and the DFW will trust the certificate signed by the CA in this trust
  store.
* Default: empty string

dfs_keystore_password  = <password>
* This setting is required when:
  * tls_enabled = true
  * override_default_certificate = true
  * use_spark_security_configs = false
  * use_node_specific_certificates = false
* Provides the storage password for dfs_keystore.
* Default: empty string

dfs_key_password  = <password>
* This setting is required when:
  * tls_enabled = true
  * override_default_certificate = true
  * use_spark_security_configs = false
  * use_node_specific_certificates = false
* Provides the password for the public/private key pair entry in dfs_keystore.
* Default: empty string

dfs_truststore_password  = <password>
* This setting is required when:
  * tls_enabled = true
  * override_default_certificate = true
  * use_spark_security_configs = false
  * use_node_specific_certificates = false
* Provides storage password for dfs_truststore.
* Default: empty string

dfc_keystore_path = <path>
* This setting is required when:
  * tls_enabled = true
  * use_node_specific_certificates = true
* Provides the path to the key store file configured on the data fabric
  coordinator (DFC).
* The DFC key store file must include the following:
  * The public/private key pair
  * A certificate export from that key pair and signed by a trusted Certificate
    Authority (CA)
* Splunk software uses this key store to secure communication between the DFC
  and the DFW nodes.
* Default: empty string

dfc_truststore_path = <path>
* This setting is required when:
  * tls_enabled = true
  * use_node_specific_certificates = true
* Provides the path to the trust store file configured on the data fabric
  coordinator (DFC).
* The DFC trust store file must include the following:
  * All trusted CA certificates
  * The certificate in dfc_keystore
* The DFC trusts all certificates signed by the CA in this trust store.
* Default: empty string

dfc_keystore_password  = <password>
* This setting is required when:
  * tls_enabled = true
  * use_node_specific_certificates = true
* Provides the storage password for dfc_keystore.
* Default: empty string

dfc_key_password  = <password>
* This setting is required when:
  * tls_enabled = true
  * use_node_specific_certificates = true
* Provides the password for the public/private key pair entry in dfc_keystore.
* Default: empty string

dfc_truststore_password  = <password>
* This setting is required when:
  * tls_enabled = true
  * use_node_specific_certificates = true
* Provides the storage password for dfc_truststore.
* Default: empty string

dfw_keystore_path = <path>
* This setting is required when:
  * tls_enabled = true
  * use_node_specific_certificates = true
* Provides the path to the key store file configured on each data fabric
  worker (DFW) node.
* The DFW key store file must include the following:
  * The public/private key pair
  * A certificate export from that key pair and signed by a trusted Certificate
    Authority (CA)
* Splunk software uses this key store to secure communication between the
```

```
  data fabric coordinator (DFC) and the DFW nodes as well as communication
  between the DFW nodes and the search peers.
* Default: empty string

dfw_truststore_path = <path>
* This setting is required when:
  * tls_enabled=true
  * use_node_specific_certificates = true
* Provides the path to the trust store file configured on the data fabric
  worker (DFW) nodes.
* The DFW trust store file must include the following:
  * All trusted CA certificates
  * The certificate in dfw_keystore
* Default: empty string

dfw_keystore_password  = <password>
* This setting is required when:
  * tls_enabled=true
  * use_node_specific_certificates = true
* Provides the storage password for dfw_keystore.
* Default: empty string

dfw_key_password  = <password>
* This setting is required when:
  * tls_enabled=true
  * use_node_specific_certificates = true
* Provides the password for the public/private key pair entry in dfw_keystore.
* Default: empty string

dfw_truststore_password  = <password>
* This setting is required when:
  * tls_enabled=true
  * use_node_specific_certificates = true
* Provides the storage password for dfw_truststore.
* Default: empty string
```

Splunkd HTTP 代理配置

```
[proxyConfig]
http_proxy = <string>
* If set, splunkd sends all HTTP requests through the proxy server
  that you specify.
* No default.

https_proxy = <string>
* If set, splunkd sends all HTTPS requests through the proxy server
  that you specify.
* If not set, splunkd uses the 'http_proxy' setting instead.
* No default.

proxy_rules = <string>
* One or more host names or IP addresses for which splunkd should route
  HTTPS requests only through the proxy server.
* If set, splunkd uses the proxy server only for endpoints that match the
  hosts or IP addresses in this value.
* Splunkd does not route requests to either the localhost or loopback addresses
  through the proxy server.
* Separate multiple entries with commas.
* This setting accepts the following values:
  * '*' (asterisk): Proxy all requests. This is the only wildcard, and it can
    be used only by itself.
  * <IPv4 or IPv6 address>: Route the request through the proxy if the
     request is intended for that address.
  * <hostname>/<domain name>: Route the request through the proxy if
     the request is intended for that host name or domain name.
  * Examples:
    * proxy_rules = "wimpy": This matches the host name "wimpy".
    * proxy_rules = "splunk.com": Matches all host names in the splunk.com
       domain (such as apps.splunk.com, www.splunk.com, etc.)
* Default: *

no_proxy = <string>
* One or more host names or IP addresses for which splunkd should
  explicitly bypass the proxy server for HTTPS requests.
* If set, splunkd does not route requests to matching host names and
  IP addresses through the proxy server.
* This setting overrides the 'proxy_rules' setting. If a host name or IP
  address is in both settings, splunkd does not route requests for that
  host name or IP address through the proxy server.
* Splunkd does not route requests to either the localhost or loopback addresses
  through the proxy server.
  addresses.
* Separate multiple entries with commas.
* This setting accepts the following values:
  * '*' (asterisk): Proxy all requests. This is the only wildcard, and it can
    be used only by itself.
  * <IPv4 or IPv6 address>: Route the request through the proxy if the
     request is intended for that address.
  * <hostname>/<domain name>: Route the request through the proxy if
     the request is intended for that host name or domain name.
  * Examples:
    * no_proxy = "wimpy": This matches the host name "wimpy".
    * no_proxy = "splunk.com": Matches all host names in the splunk.com
       domain (such as apps.splunk.com, www.splunk.com, etc.)
* Default: localhost, 127.0.0.1, ::1
```

Splunkd HTTP 服务器配置

```
[httpServer]
* Set stand-alone HTTP settings for splunkd under this stanza name.
* Follow this stanza name with any number of the following attribute/value
  pairs.
* If you do not specify an entry for each attribute, splunkd uses the default
  value.

atomFeedStylesheet = <string>
* Defines the stylesheet relative URL to apply to default Atom feeds.
* Set to 'none' to stop writing out xsl-stylesheet directive.
* Default: /static/atom.xsl

max-age = <nonnegative integer>
* Set the maximum time, in seconds, to cache a static asset served off of
  the '/static' directory.
* This value is passed along in the 'Cache-Control' HTTP header.
* Default: 3600 (60 minutes)

follow-symlinks = <boolean>
* Specifies whether the static file handler (serving the '/static'
  directory) follows filesystem symlinks when serving files.
* Default: false

disableDefaultPort = <boolean>
* If set to "true", turns off listening on the splunkd management port,
  which is 8089 by default.
* NOTE: Changing this setting is not recommended.
  * This is the general communication path to splunkd.  If it is disabled,
    there is no way to communicate with a running splunk instance.
  * This means many command line splunk invocations cannot function,
    Splunk Web cannot function, the REST interface cannot function, etc.
  * If you choose to disable the port anyway, understand that you are
    selecting reduced Splunk functionality.
```

```
* Default: false

acceptFrom = <network_acl> ...
* Lists a set of networks or addresses from which to accept connections.
* Separate multiple rules with commas or spaces.
* Each rule can be in one of the following formats:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A Classless Inter-Domain Routing (CIDR) block of addresses
       (examples: "10/8", "192.168.1/24", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard
       (examples: "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches.
  For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

streamInWriteTimeout = <positive number>
* The timeout, in seconds, for uploading data to the http server.
* When uploading data to http server, if the http server is unable
  to write data to the receiver for the specified value, the operation
  aborts.
* Default: 5

max_content_length = <integer>
* Maximum content length, in bytes.
* HTTP requests over the size specified are rejected.
* This setting exists to avoid allocating an unreasonable amount
  of memory from web requests.
* In environments where indexers have enormous amounts of RAM, this
  number can be reasonably increased to handle large quantities of
  bundle data.
* Default: 2147483648 (2GB)

maxSockets = <integer>
* The number of simultaneous HTTP connections that Splunk Enterprise accepts
  simultaneously. You can limit this number to constrain resource usage.
* If set to "0", Splunk Enterprise automatically sets maxSockets to
  one third of the maximum allowable open files on the host.
* If this number is less than 50, it is set to 50.
* If this number is greater than 400000, it is set to 400000.
* If set to a negative number, no limit is enforced.
* Default: 0

maxThreads = <integer>
* The number of threads that can be used by active HTTP transactions.
  You can limit this number to constrain resource usage.
* If set to 0, Splunk Enterprise automatically sets the limit to
  one third of the maximum allowable threads on the host.
* If this number is less than 20, it is set to 20. If this number is
  greater than 150000, it is set to 150000.
* If maxSockets is not negative and maxThreads is greater than maxSockets, then
  Splunk Enterprise sets maxThreads to be equal to maxSockets.
* If set to a negative number, no limit is enforced.
* Default: 0

keepAliveIdleTimeout = <integer>
* How long, in seconds, that the Splunkd HTTP server allows a keep-alive
  connection to remain idle before forcibly disconnecting it.
* If this number is less than 7200, it is set to 7200.
* Default: 7200 (120 minutes)

busyKeepAliveIdleTimeout = <integer>
* How long, in seconds, that the Splunkd HTTP server allows a keep-alive
  connection to remain idle while in a busy state before forcibly
  disconnecting it.
* Use caution when configuring this setting as a value that is too large
```

```
  can result in file descriptor exhaustion due to idling connections.
* If this number is less than 12, it is set to 12.
* Default: 12

forceHttp10 = auto|never|always
* When set to "always", the REST HTTP server does not use some
  HTTP 1.1 features such as persistent connections or chunked
  transfer encoding.
* When set to "auto" it does this only if the client sent no
  User-Agent header, or if the user agent is known to have bugs
  in its HTTP/1.1 support.
* When set to "never" it always allows HTTP 1.1, even to
  clients it suspects may be buggy.
* Default: auto

crossOriginSharingPolicy = <origin_acl> ...
* List of the HTTP Origins for which to return Access-Control-Allow-* (CORS)
  headers.
* These headers tell browsers that web applications are trusted at those sites
  to make requests to the REST interface.
* The origin is passed as a URL without a path component (for example
  "https://app.example.com:8000").
* This setting can take a list of acceptable origins, separated
  by spaces and/or commas.
* Each origin can also contain wildcards for any part.  Examples:
    *://app.example.com:*  (either HTTP or HTTPS on any port)
    https://*.example.com  (any host under example.com, including
    example.com itself)
* An address can be prefixed with a '!' to negate the match, with
  the first matching origin taking precedence.  For example,
  "!*://evil.example.com:* *://*.example.com:*" to not avoid
  matching one host in a domain
* A single "*" can also be used to match all origins
* No default.

crossOriginSharingHeaders = <string>
* A list of the HTTP headers to which splunkd sets
  "Access-Control-Allow-Headers" when replying to
  Cross-Origin Resource Sharing (CORS) preflight requests.
* The "Access-Control-Allow-Headers" header is used in response to
  a CORS preflight request to tell browsers which HTTP headers can be
  used during the actual request.
* A CORS preflight request is a CORS request that checks to see if
  the CORS protocol is understood and a server is aware of using
  specific methods and headers.
* This setting can take a list of acceptable HTTP headers, separated
  by commas.
* A single "*" can also be used to match all headers.
* Default: Empty string.

x_frame_options_sameorigin = <boolean>
* Adds a X-Frame-Options header set to "SAMEORIGIN" to every response
  served by splunkd.
* Default: true

allowEmbedTokenAuth = <boolean>
* If set to false, splunkd does not allow any access to artifacts
  that previously had been explicitly shared to anonymous users.
* This effectively disables all use of the "embed" feature.
* Default: true

cliLoginBanner = <string>
* Sets a message which is added to the HTTP reply headers
  of requests for authentication, and to the "server/info" endpoint
* This is printed by the Splunk CLI before it prompts
  for authentication credentials.  This can be used to print
  access policy information.
* If this string starts with a '"' character, it is treated as a
  CSV-style list with each line comprising a line of the message.
  For example: "Line 1","Line 2","Line 3"
* No default.

allowBasicAuth = <boolean>
* Allows clients to make authenticated requests to the splunk
  server using "HTTP Basic" authentication in addition to the
  normal "authtoken" system
* This is useful for programmatic access to REST endpoints and
  for accessing the REST API from a web browser.  It is not
  required for the UI or CLI.
* Default: true

basicAuthRealm = <string>
* When using "HTTP Basic" authentication, the 'realm' is a
  human-readable string describing the server.  Typically, a web
  browser presents this string as part of its dialog box when
  asking for the username and password.
* This can be used to display a short message describing the
  server and/or its access policy.
* Default: /splunk

allowCookieAuth = <boolean>
* Allows clients to request an HTTP cookie from the /services/auth/login
  endpoint which can then be used to authenticate future requests
* Default: true

cookieAuthHttpOnly = <boolean>
* When using cookie based authentication, mark returned cookies
  with the "httponly" flag to tell the client not to allow javascript
  code to access its value
* NOTE: has no effect if allowCookieAuth=false
* Default: true

cookieAuthSecure = <boolean>
* When using cookie based authentication, mark returned cookies
  with the "secure" flag to tell the client never to send it over
  an unencrypted HTTP channel
* NOTE: has no effect if allowCookieAuth=false OR the splunkd REST
  interface has SSL disabled
* Default: true

dedicatedIoThreads = [<integer>|auto]
* The number of threads that splunkd dedicates to handling HTTP I/O requests.
* This setting controls thread usage for all HTTP requests through splunkd,
  including SSL encryption.
* If you set this to "0", splunkd uses the same thread that accepted the initial
  connection over TCP to perform the HTTP I/O.
* If you set this to a number other than "0", splunkd creates that number of
  threads to handle HTTP I/O.
* If you set this to "auto", splunkd uses the number of CPU cores on the
  machine to determine the number of threads available for HTTP I/O as
  follows:
    * Number of CPU cores available  | 'dedicatedIoThreads'
                   0 - 16            |    0
                  17 - 48            |    2
                  49 - 128           |    4
                 129 - 192           |    6
                 193 and higher      |    8

* You do not usually need to change this setting.
* Default: auto

dedicatedIoThreadsSelectionPolicy = <round_robin | weighted_random>
* Specifies the I/O threads selection policy to use while selecting I/O thread
  for new connection.
* If set to "round_robin", the incoming connections are assigned to I/O threads
  in a round robin fashion.
* If set to "weighted_random", the connections are assigned to I/O threads using
  a weighted random scheme designed to even out the CPU usage of each I/O thread.
```

```
* NOTE: This setting only takes effect when dedicatedIoThreads is greater than 1.
* Default: round_robin

dedicatedIoThreadsWeightsUpdatePeriod = <number>
* The interval, in seconds, when I/O thread weights are recalculated for the
  "weighted_random" selection policy.
* Reducing this interval causes the weights to be re-evaluated more
  frequently, thereby enabling the system to react more quickly to changes
  in relative thread load.
* Increasing this interval causes the weights to be re-evaluated less
  frequently, thereby reducing the ability of the system to respond to
  bursty events.
* Default: 30

replyHeader.<name> = <string>
* Add a static header to all HTTP responses this server generates
* For example, "replyHeader.My-Header = value" causes the
  response header "My-Header: value" to be included in the reply to
  every HTTP request to the REST server
```

Splunkd HTTP 服务器侦听器配置

```
[httpServerListener:<ip:><port>]
* Enable the splunkd REST HTTP server to listen on an additional port number
  specified by <port>.  If a non-empty <ip> is included (for example:
  "[httpServerListener:127.0.0.1:8090]") the listening port is
  bound only to a specific interface.
* Multiple "httpServerListener" stanzas can be specified to listen on
  more ports.
* Normally, splunkd listens only on the single REST port specified in
  the web.conf "mgmtHostPort" setting, and none of these stanzas need to
  be present. Add these stanzas only if you want the REST HTTP server
  to listen to more than one port.

ssl = <boolean>
* Toggle whether this listening ip:port uses SSL or not.
* If the main REST port is SSL (the "enableSplunkdSSL" setting in this
  file's [sslConfig] stanza) and this stanza is set to "ssl=false" then
  clients on the local machine such as the CLI may connect to this port.
* Default: true

listenOnIPv6 = no|yes|only
* Toggle whether this listening ip:port listens on IPv4, IPv6, or both.
* If not present, the setting in the [general] stanza is used

acceptFrom = <network_acl> ...
* Lists a set of networks or addresses from which to accept connections.
* Separate multiple rules with commas or spaces.
* Each rule can be in one of the following formats:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A Classless Inter-Domain Routing (CIDR) block of addresses
       (examples: "10/8", "192.168.1/24", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard
       (examples: "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches.
  For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: The setting in the [httpServer] stanza
```

静态文件处理程序 MIME 类型地图

```
[mimetype-extension-map]
* Map filename extensions to MIME type for files served from the static file
  handler under this stanza name.

<file-extension> = <MIME-type>
* Instructs the HTTP static file server to mark any files ending
  in 'file-extension' with a header of 'Content-Type: <MIME-type>'.
* Default:
    [mimetype-extension-map]
    gif = image/gif
    htm = text/html
    jpg = image/jpg
    png = image/png
    txt = text/plain
    xml = text/xml
    xsl = text/xml
```

Splunkd_stderr.log 和 Splunkd_stdout.log 的日志轮换

```
# These stanzas apply only on UNIX.  splunkd on Windows has no
# stdout.log or stderr.log files.

[stderr_log_rotation]
* Controls the data retention of the file containing all messages written to
  splunkd's stderr file descriptor (fd 2).
* Typically this is extremely small, or mostly errors and warnings from
  linked libraries.

maxFileSize = <bytes>
* When splunkd_stderr.log grows larger than this value, it is rotated.
* maxFileSize is expressed in bytes.
* You might want to increase this if you are working on a problem
  that involves large amounts of output to the splunkd_stderr.log file.
* You might want to reduce this to allocate less storage to this log category.
* Default: 10000000 (10 si-megabytes)

BackupIndex = <non-negative integer>
* How many rolled copies to keep.
* For example, if this setting is 2, the splunkd_stderr.log.1 and
  splunkd_stderr.log.2 file might exist. Further rolls delete the
  current splunkd_stderr.log.2 file.
* You might want to increase this value if you are working on a problem
  that involves large amounts of output to the splunkd_stderr.log fils
* You might want to reduce this to allocate less storage to this log category.
* Default: 2

checkFrequency = <seconds>
* How often. in seconds, to check the size of splunkd_stderr.log
* Larger values may result in larger rolled file sizes but take less resources.
* Smaller values may take more resources but more accurately constrain the
  file size.
* Default: 10

[stdout_log_rotation]
* Controls the data retention of the file containing all messages written to
  splunkd's stdout file descriptor (fd 1).
* Almost always, there is nothing in this file.

* This stanza can have the same settings as the [stderr_log_rotation]
  stanza with the same defaults.  See above for definitions.

maxFileSize = <bytes>
BackupIndex = <non-negative integer>
```

```
checkFrequency = <seconds>
```

远程应用配置（如：SplunkBase）

```
[applicationsManagement]
* Set remote applications settings for Splunk under this stanza name.
* Follow this stanza name with any number of the following attribute/value
  pairs.
* If you do not specify an entry for each attribute, Splunk uses the default
  value.

allowInternetAccess = <boolean>
* Allow Splunk to access the remote applications repository.

url = <URL>
* Applications repository.
* Default: https://apps.splunk.com/api/apps

loginUrl = <URL>
* Applications repository login.
* Default: https://apps.splunk.com/api/account:login/

detailsUrl = <URL>
* Base URL for application information, keyed off of app ID.
* Default: https://apps.splunk.com/apps/id

useragent = <splunk-version>-<splunk-build-num>-<platform>
* User-agent string to use when contacting applications repository.
* <platform> includes information like operating system and CPU architecture.

updateHost = <URL>
* Host section of URL to check for app updates, e.g. https://apps.splunk.com

updatePath = <URL>
* Path section of URL to check for app updates
  For example: /api/apps:resolve/checkforupgrade

updateTimeout = <time range string>
* The minimum amount of time Splunk software waits between checks for
  app updates.
* Examples include '24h' (24 hours), '3d' (3 days),
  '7200s' (7200 seconds, or two hours)
* Default: 24h

sslVersions = <versions_list>
* Comma-separated list of SSL versions to connect to 'url'
  (https://apps.splunk.com).
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* The special version "*" selects all supported versions.  The version "tls"
  selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list
  but does nothing.
* When configured in FIPS mode, ssl3 is always disabled regardless
  of this configuration.
* Default: The default can vary (See the 'sslVersions' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)

sslVerifyServerCert = <boolean>
* If this is set to true, Splunk verifies that the remote server (
  specified in 'url') being connected to is a valid one (authenticated).
  Both the common name and the alternate name of the server are then
  checked for a match if they are specified in 'sslCommonNameToCheck' and
  'sslAltNameToCheck'. A certificate is considered verified if either
  is matched.
* Default: true

caCertFile = <path>
* Full path to a CA (Certificate Authority) certificate(s) PEM format file.
* The <path> must refer to a PEM format file containing one or more root CA
  certificates concatenated together.
* Used only if 'sslRootCAPath' is not set.
* Used for validating SSL certificate from https://apps.splunk.com/

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd checks the common name(s) of the certificate presented by
  the remote server (specified in 'url') against this list of common names.
* Default: apps.splunk.com

sslCommonNameList = <commonName1>, <commonName2>, ...
* DEPRECATED. Use the 'sslCommonNameToCheck' setting instead.

sslAltNameToCheck =  <alternateName1>, <alternateName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd checks the alternate name(s) of the certificate presented by
  the remote server (specified in 'url') against this list of subject
  alternate names.
* Default: splunkbase.splunk.com, apps.splunk.com

cipherSuite = <cipher suite string>
* Uses the specified cipher string for making outbound HTTPS connection.
* The default can vary. See the 'cipherSuite' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the current default.

ecdhCurves = <comma separated list of ec curves>
* ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of Client Hello.
* Splunk software only supports named curves specified
  by their SHORT names.
* The list of valid named curves by their short/long names can be obtained
  by executing this command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* e.g. ecdhCurves = prime256v1,secp384r1,secp521r1
* Default: The default can vary (See the 'ecdhCurves' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)
```

多样配置

```
[scripts]

initialNumberOfScriptProcesses = <num>
* The number of pre-forked script processes that are launched when the
  system comes up. These scripts are reused when script REST endpoints
  *and* search scripts are executed.
  The idea is to eliminate the performance overhead of launching the script
  interpreter every time it is invoked.  These processes are put in a pool.
  If the pool is completely busy when a script gets invoked, a new processes
  is fired up to handle the new invocation - but it disappears when that
  invocation is finished.
```

（索引器，非 Splunk 日志文件）磁盘使用情况设置

```
[diskUsage]

minFreeSpace = <num>|<percentage>
* Minimum free space for a partition.
* Specified as an integer that represents a size in binary
  megabytes (ie MiB) or as a percentage, written as a decimal
  between 0 and 100 followed by a '%' sign, for example "10%"
  or "10.5%"
* If specified as a percentage, this is taken to be a percentage of
  the size of the partition. Therefore, the absolute free space required
  varies for each partition depending on the size of that partition.
* Specifies a safe amount of space that must exist for splunkd to continue
  operating.
* Note that this affects search and indexing
* For search:
  * Before attempting to launch a search, Splunk software requires this
    amount of free space on the filesystem where the dispatch directory
    is stored, $SPLUNK_HOME/var/run/splunk/dispatch
  * Applied similarly to the search quota values in authorize.conf and
    limits.conf.
* For indexing:
  * Periodically, the indexer checks space on all partitions
    that contain splunk indexes as specified by indexes.conf. Indexing
    is paused and a ui banner + splunkd warning posted to indicate
    need to clear more disk space.
* Default: 5000 (approx 5GB)

pollingFrequency = <num>
* Specifies that after every 'pollingFrequency' events are indexed,
  the disk usage is checked.
* Default: 100000

pollingTimerFrequency = <num>
* Minimum time, in seconds, between two disk usage checks.
* Default: 10
```

队列设置

```
[queue]

maxSize = [<integer>|<integer>[KB|MB|GB]]
* Specifies default capacity of a queue.
* If specified as a lone integer (for example, maxSize=1000), maxSize
  indicates the maximum number of events allowed in the queue.
* If specified as an integer followed by KB, MB, or GB (for example,
  maxSize=100MB), it indicates the maximum RAM allocated for queue.
* Default: 500KB

cntr_1_lookback_time = [<integer>[s|m]]
* The lookback counters are used to track the size and count (number of
  elements in the queue) variation of the queues using an exponentially
  moving weighted average technique. Both size and count variation
  has 3 sets of counters each. The set of 3 counters is provided to be able
  to track short, medium and long term history of size/count variation. The
  user can customize the value of these counters or lookback time.
* Specifies how far into history should the size/count variation be tracked
  for counter 1.
* It must be an integer followed by [s|m] which stands for seconds and
  minutes respectively.
* Default: 60s

cntr_2_lookback_time = [<integer>[s|m]]
* See above for explanation and usage of the lookback counter.
* Specifies how far into history should the size/count variation be tracked
  for counter 2.
```

```
* Default: 600s (10 minutes)

cntr_3_lookback_time = [<integer>[s|m]]
* See above for explanation and usage of the lookback counter..
* Specifies how far into history should the size/count variation be tracked
  for counter 3.
* Default: 900s (15 minutes)

sampling_interval = [<integer>[s|m]]
* The lookback counters described above collects the size and count
  measurements for the queues. This specifies at what interval the
  measurement collection happens. Note that for a particular queue all
  the counters sampling interval is same.
* It needs to be specified via an integer followed by [s|m] which stands for
  seconds and minutes respectively.
* Default: 1s

[queue=<queueName>]

maxSize = [<integer>|<integer>[KB|MB|GB]]
* Specifies the capacity of a queue. It overrides the default capacity
  specified in the [queue] stanza.
* If specified as a lone integer (for example, maxSize=1000), maxSize
  indicates the maximum number of events allowed in the queue.
* If specified as an integer followed by KB, MB, or GB (for example,
  maxSize=100MB), it indicates the maximum RAM allocated for queue.
* Default: The default is inherited from the 'maxSize' value specified
  in the [queue] stanza

cntr_1_lookback_time = [<integer>[s|m]]
* Same explanation as mentioned in the [queue] stanza.
* Specifies the lookback time for the specific queue for counter 1.
* Default: The default value is inherited from the 'cntr_1_lookback_time'
  value that is specified in the [queue] stanza

cntr_2_lookback_time = [<integer>[s|m]]
* Specifies the lookback time for the specific queue for counter 2.
* Default: The default value is inherited from the 'cntr_2_lookback_time'
  value that is specified in the [queue] stanza.

cntr_3_lookback_time = [<integer>[s|m]]
* Specifies the lookback time for the specific queue for counter 3.
* Default: The default value is inherited from the 'cntr_3_lookback_time' value
  that is specified in the [queue] stanza.

sampling_interval = [<integer>[s|m]]
* Specifies the sampling interval for the specific queue.
* Default: The default value is inherited from the 'sampling_interval' value
  specified in the [queue] stanza.
```

Http 端点的 PubSub 服务器设置。

```
[pubsubsvr-http]

disabled = <boolean>
* If disabled, then http endpoint is not registered. Set this value to
  'false' to expose PubSub server on http.
* Default: true

stateIntervalInSecs = <seconds>
* The number of seconds before a connection is flushed due to inactivity.
  The connection is not closed, only messages for that connection are
  flushed.
* Default: 300 (5 minutes)
```

*一般文件输入设置** 不支持 ***

```
# [fileInput]
# outputQueue = <queue name>
* REMOVED. Historically this allowed the user to set the target queue for the
  file-input (tailing) processor, but there was no valid reason to modify this.
* This setting is now removed, and has no effect.
* Tailing always uses the parsingQueue.
```

控制 ‘splunk diag’ 行为的设置，诊断性工具

```
[diag]

# These settings provide defaults for invocations of the splunk diag
# command. Generally these can be further modified by command line flags to
# the diag command.

EXCLUDE-<class> = <glob expression>
* Specifies a glob / shell pattern to be excluded from diags generated on
  this Splunk instance.
  * Example: */etc/secret_app/local/*.conf
* Further excludes can be added at the splunk diag command line, but there
  is no facility to disable configuration-based excludes at the command
  line.
* There is one exclude by default, for the splunk.secret file.

# the following commands can be overridden entirely by their command-line
# equivalents.

components = <comma separated list>
* Specifies which components of the diag should be gathered.
* This allows the disabling and enabling, categorically, of entire portions
  of diag functionality.
* All of these components are further subject to the exclude feature (see
  above), and component-specific filters (see below).
* Currently, with no configuration, all components except "rest" are enabled
  by default.
* Available components are:
  * index_files   : Files from the index that indicate their health
                    (Hosts|Sources|Sourcetypes.data and bucketManifests).
                    User data is not collected.
  * index_listing : Directory listings of the index contents are
                    gathered, in order to see filenames, directory names,
                    sizes, timestamps and the like.
  * etc           : The entire contents of the $SPLUNK_HOME/etc
                    directory.  In other words, the configuration files.
  * log           : The contents of $SPLUNK_HOME/var/log/...
  * pool          : If search head pooling is enabled, the contents of the
                    pool dir.
  * dispatch      : Search artifacts, without the actual results,
                    In other words var/run/splunk/dispatch, but not the
                    results or events files
  * searchpeers   : Directory listings of knowledge bundles replicated for
                    distributed search
                    In other words: $SPLUNK_HOME/var/run/searchpeers
  * consensus     : Consensus protocol files produced by search head clustering
                    In other words: $SPLUNK_HOME/var/run/splunk/_raft
  * conf_replication_summary : Directory listing of configuration
                    replication summaries produced by search head clustering
                    In other words: $SPLUNK_HOME/var/run/splunk/snapshot
  * rest          : The contents of a variety of splunkd endpoints
                    Includes server status messages (system banners),
                    licenser banners, configured monitor inputs & tailing
                    file status (progress reading input files).
                    * On cluster managers, also gathers manager info, fixups,
                      current peer list, clustered index info, current
                      generation, & buckets in bad stats
                    * On cluster peers, also gathers local buckets & local
                      peer info, and the manager information remotely from
                      the configured manager.
  * kvstore       : Directory listings of the KV Store data directory
                    contents are gathered, in order to see filenames,
                    directory names, sizes, and timestamps.
  * file_validate : Produce list of files that were in the install media
                    which have been changed.  Generally this should be an
                    empty list.
  * profiler      : The profiler directory at $SPLUNK_HOME/var/run/profiler

* The special value "all" is also supported, enabling everything explicitly.
* Further controlling the components from the command line:
    * The switch --collect replaces this list entirely.
        * Example: --collect log,etc
          This would set the components to log and etc only, regardless of
          config
    * The switch --enable adds a specific component to this list.
        * Example: --enable pool
          This would ensure that pool data is collected, regardless of
          config
    * The switch --disable removes a specific component from this list.
        * Example: --disable pool
          This would ensure that pool data is *NOT* collected, regardless of
          config
* Default: To collect all components, except "rest".

# Data filters; these further refine what is collected
# most of the existing ones are designed to limit the size and collection
# time to pleasant values.

# NOTE: Most values here use underscores '_' while the command line uses
# hyphens '-'

all_dumps = <boolean>
* This setting currently is irrelevant on UNIX platforms.
* Affects the 'log' component of diag. (dumps are written to the log dir
  on Windows)
* Can be overridden with the --all-dumps command line flag.
* Normally, Splunk diag gathers only three .DMP (crash dump) files on
  Windows to limit diag size.
* If this is set to true, splunk diag collects *all* .DMP files from
  the log directory.
* No default. (false equivalent).

index_files = [full|manifests]
* Selects a detail level for the 'index_files' component.
* Can be overridden with the --index-files command line flag.
* If set to 'manifests', limits the index file-content collection to just
  .bucketManifest files which give some information about the general state of
  buckets in an index.
* If set to 'full', adds the collection of Hosts.data, Sources.data, and
  Sourcetypes.data which indicate the breakdown of count of items by those
  categories per-bucket, and the timespans of those category entries
    * 'full' can take quite some time on very large index sizes, especially
      when slower remote storage is involved.
* Default: manifests

index_listing = [full|light]
* Selects a detail level for the 'index_listing' component.
* Can be overridden with the --index-listing command line flag.
* 'light' gets directory listings (ls, or dir) of the hot/warm and cold
  container directory locations of the indexes, as well as listings of each
  hot bucket.
* 'full' gets a recursive directory listing of all the contents of every
```

```
  index location, which should mean all contents of all buckets.
  * 'full' may take significant time as well with very large bucket counts,
    especially on slower storage.
* Default: light

etc_filesize_limit = <non-negative integer in kilobytes>
* This filters the 'etc' component
* Can be overridden with the --etc-filesize-limit command line flag
* This value is specified in kilobytes.
    * Example: 2000 - this would be approximately 2MB.
* Files in the $SPLUNK_HOME/etc directory which are larger than this limit
  is not collected in the diag.
* Diag produces a message stating that a file has been skipped for size
  to the console. (In practice, large files have been found to oftentimes
  be a surprise to the administrator, and indicate problems).
* If desired, this filter may be entirely disabled by setting the value
  to 0.
* Currently, as a special exception, the file
  $SPLUNK_HOME?etc/system/replication/ops.json is permitted to be 10x the
  size of this limit.
* Default: 10000 (10MB)

log_age = <non-negative integer in days>
* This filters the 'log' component
* Can be overridden with the --log-age command line flag
* This value is specified in days
  * Example: 75 - this would be 75 days, or about 2.5 months.
* If desired, this filter may be entirely disabled by setting the value to 0.
* The idea of this default filter is that data older than this is rarely
  helpful in troubleshooting cases in any event.
* Default: 60 (or approximately 2 months)

upload_proto_host_port = <protocol://host:port>|disabled
* URI base to use for uploading files/diags to Splunk support.
* If set to disabled (override in a local/server.conf file), effectively
  disables diag upload functionality for this Splunk install.
* Modification may theoretically may permit operations with some forms of
  proxies, but diag is not specifically designed for such, and support of proxy
  configurations that do not currently work is considered an Enhancement
  Request.
* The communication path with api.splunk.com is over a simple but not
  documented protocol.  If for some reason you wish to accept diag uploads into
  your own systems, it probably is simpler to run diag and then upload via
  your own means independently.  However if you have business reasons that you
  want this built-in, get in touch.
* Uploading to unencrypted http definitely not recommended.
* Default: https://api.splunk.com

SEARCHFILTERSIMPLE-<class> = regex
SEARCHFILTERLUHN-<class> = regex
* Redacts strings from ad-hoc searches logged in the audit.log and
  remote_searches.log files.
* Substrings which match these regexes *inside* a search string in one of those
  two files is replaced by sequences of the character X, as in XXXXXXXX.
* Substrings which match a SEARCHFILTERLUHN regex has the contained
  numbers further tested against the luhn algorithm, used for data integrity
  in mostly financial circles, such as credit card numbers.  This permits more
  accurate identification of that type of data, relying less heavily on regex
  precision. See the Wikipedia article on the "Luhn algorithm" for additional
  information.
* Search string filtering is entirely disabled if --no-filter-searchstrings is
  used on the command line.
* NOTE: That matching regexes must take care to match only the bytes of the
  term.  Each match "consumes" a portion of the search string, so matches that
  extend beyond the term (for example, to adjacent whitespace) could prevent
  subsequent matches, and/or redact data needed for troubleshooting.
* Please use a name hinting at the purpose of the filter in the <class>
  component of the setting name, and consider an additional explicative
  comment, even for custom local settings. This might skip inquiries from
  support.
```

配置应用许可证检查的应用程序许可证管理器设置

```
[applicense]
appLicenseHostPort = <IP:port>
* Specifies the location of the IP address or DNS name and port of the app
  license server.

appLicenseServerPath = <path>
* Specifies the path portion of the URI of the app license server.

caCertFile = <path>
* Full path to a CA (Certificate Authority) certificate(s) PEM format file.
* NOTE: Splunk plans to submit Splunk Enterprise for Common Criteria
  evaluation. Splunk does not support using the product in Common
  Criteria mode until it has been certified by NIAP. See the "Securing
  Splunk Enterprise" manual for information on the status of Common
  Criteria certification.
* Default: $SPLUNK_HOME/etc/auth/applicenseCA.pem

sslVersions = <versions_list>
* Comma-separated list of SSL versions to support.
* The special version "*" selects all supported versions.  The version "tls"
  selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list
  but does nothing.
* When configured in FIPS mode, ssl3 is always disabled regardless
  of this configuration.
* Default: The default can vary (See the 'sslVersions' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)

cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for the SSL connection.
* Default: The default can vary (See the 'cipherSuite' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the
  current default)

sslVerifyServerCert = <boolean>
* If this is set to true, Splunk Enterprise verifies that the remote server
  (specified in 'url') being connected to is a valid one (authenticated).
* Both the common name and the alternate name of the server are then
  checked for a match if they are specified in 'sslCommonNameToCheck'
  and 'sslAltNameToCheck'.
* A certificate is considered verified if either is matched.
* Default: true

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd limits most outbound HTTPS connections to hosts which use
  a cert with one of the listed common names.
* Default:  Some common name checking
.
sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
* If this value is set, and 'sslVerifyServerCert' is set to true,
  splunkd is also willing to verify certificates which have a
  so-called "Subject Alternate Name" that matches any of the alternate
  names in this list.
* Subject Alternate Names are effectively extended descriptive
  fields in SSL certs beyond the commonName.  A common practice for
  HTTPS certs is to use these values to store additional valid
  hostnames or domains where the cert should be considered valid.
* Accepts a comma-separated list of Subject Alternate Names to consider
```

```
  valid.
* Items in this list are never validated against the SSL Common Name.
* Default: Some alternate name checking

disabled = <boolean>
* Select true to disable this feature or false to enable this feature. App
  licensing is experimental, so it is disabled by default.
* Default: true
```

配置许可证池的许可证管理器设置

```
[license]

master_uri = [self|<uri>]
* The URI of the license master that a license slave connects to.
* If set to a URI, the instance attempts to connect to the license master at the URI you specify.
* A URI consists of the following: <scheme>://<hostname>:<port>
* For example, if you set "master_uri = https://example.con:8089", then the instance attempts
  a connection to the instance at "http://example.com:8089" to get licensing information.
* No default.

active_group = Enterprise|Trial|Forwarder|Free
* If the instance is a license master, the license type will be set in 'active_group'.
* Default: <empty>

connection_timeout = <integer>
 * Maximum time, in seconds, to wait before sending data to master times out
 * This timeout applies only if 'master_uri' is set.
 * Default: 30

send_timeout = <integer>
 * Maximum time, in seconds, to wait before sending data to master times out
 * This timeout applies only if 'master_uri' is set.
 * Default: 30

receive_timeout = <integer>
 * Maximum time, in seconds, to wait before receiving data from master times out
 * This timeout applies only if 'master_uri' is set.
 * Default: 30

squash_threshold = <positive integer>
* Advanced setting.  Periodically the indexer must report to license manager
  the data indexed broken down by source, sourcetype, host, and index.  If
  the number of distinct (source, sourcetype, host, index) tuples grows over
  the 'squash_threshold', the (host, source) values are squashed and only a
  breakdown by (sourcetype, index) is reported. This is to prevent explosions in
  memory + license_usage.log lines.
* Set this only after consulting a Splunk Support engineer.
* This needs to be set on license slaves as well as license
  master.
* Default: 2000

report_interval = <nonnegative integer>[s|m|h]
* Selects a time period for reporting in license usage to the license
  master.
* This value is intended for very large deployments (hundreds of indexers)
  where a large number of indexers may overwhelm the license server.
* The maximum permitted interval is 1 hour.
* The minimum permitted interval is 1 minute.
* Can be expressed as a positive number of seconds, minutes or hours.
* If no time unit is provided, seconds is assumed.
* Default: 1m

license_warnings_update_interval = <nonnegative integer>
* Specifies a time period, in seconds, for license master to update
```

```
  license warnings in Splunk Web bulletin messages.
* License master checks at every second the last time it updated the
  warnings, and updates if this time period has elapsed.
* Increase this value for very large deployments that contain very
  large number of source types.
* The minimum permitted interval is 10.
* The maximum permiited interval is 3600, equivalent to 1 hour.
* If set to special value of 0, the license master automatically tunes this
  setting to accommodate the size of the deployment.
* Default: 0

strict_pool_quota = <boolean>
* Toggles strict pool quota enforcement
* If set to true, members of pools receive warnings for a given day if
  usage exceeds pool size regardless of whether overall stack quota was
  exceeded
* If set to false, members of pool only receive warnings if both pool
  usage exceeds pool size AND overall stack usage exceeds stack size
* Default: true

pool_suggestion = <string>
* Suggest a pool to the master for this slave.
* The master uses this suggestion if the master doesn't have an explicit
  rule mapping the slave to a given pool (ie...no slave list for the
  relevant license stack contains this slave explicitly)
* If the pool name doesn't match any existing pool, it is ignored, no
  error is generated
* This setting is intended to give an alternative management option for
  pool/slave mappings. When onboarding an indexer, it may be easier to
  manage the mapping on the indexer itself via this setting rather than
  having to update server.conf on master for every addition of new indexer
* NOTE: If you have multiple stacks and a slave maps to multiple pools, this
        feature is limited in only allowing a suggestion of a single pool;
        This is not a common scenario however.
* No default. (which means this feature is disabled)

[lmpool:auto_generated_pool_forwarder]
* This is the auto generated pool for the forwarder stack

description = <textual description of this license pool>
quota = MAX|<maximum amount allowed by this license>
* MAX indicates the total capacity of the license. You may have only 1 pool
  with MAX size in a stack
* The quota can also be specified as a specific size eg. 20MB, 1GB etc

slaves = *|<slave list>
* An asterisk(*) indicates that any slave can connect to this pool
* You can also specify a comma separated slave guid list

stack_id = forwarder
* The stack to which this pool belongs.

[lmpool:auto_generated_pool_free]
* This is the auto generated pool for the free stack
* Field descriptions are the same as that for
  the 'lmpool:auto_generated_pool_forwarder' setting.

[lmpool:auto_generated_pool_enterprise]
* This is the auto generated pool for the enterprise stack
* Field descriptions are the same as that for
  the 'lmpool:auto_generated_pool_forwarder' setting.


[lmpool:auto_generated_pool_fixed-sourcetype_<sha256 hash of srctypes>]
* This is the auto generated pool for the enterprise fixed srctype stack
* Field descriptions are the same as that for
  the 'lmpool:auto_generated_pool_forwarder' setting.

[lmpool:auto_generated_pool_download_trial]
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* This is the auto generated pool for the download trial stack
* Field descriptions are the same as that for
  the "lmpool:auto_generated_pool_forwarder"

[pooling]

state = [enabled|disabled]
* UNSUPPORTED: This setting is no longer supported

storage = <path to shared storage>
* UNSUPPORTED: This setting is no longer supported

app_update_triggers = true|false|silent
* UNSUPPORTED: This setting is no longer supported

lock.timeout = <time range string>
* UNSUPPORTED: This setting is no longer supported

lock.logging = <boolean>
* UNSUPPORTED: This setting is no longer supported

poll.interval.rebuild = <time range string>
* UNSUPPORTED: This setting is no longer supported

poll.interval.check = <time range string>
* UNSUPPORTED: This setting is no longer supported

poll.blacklist.<name> = <regex>
* UNSUPPORTED: This setting is no longer supported
```

可用性高的群集化配置

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[clustering]

mode = [manager|peer|searchhead|disabled]
* Sets operational mode for this cluster node.
* Only one manager may exist per cluster.
* Note: "manager" and "peer" replace the prior 'mode' values of
  "master" and "slave". The prior values are currently still supported,
  but they will be removed from the product in a future release.
* Default: disabled

master_uri = [<uri> | clustermanager:stanzaName1, clustermanager:stanzaName2]
* DEPRECATED. Use the 'manager_uri' setting instead.

manager_uri = [<uri> | clustermanager:stanzaName1, clustermanager:stanzaName2]
* Only valid for 'mode=peer' or 'mode=searchhead'.
* The URI of the cluster manager that this peer or search head
  should connect to.
* An example of <uri>: <scheme>://<hostname>:<port>
* Only for 'mode=searchhead' - If the search head is a part of multiple
  clusters, the manager URIs can be specified by a comma separated list.

advertised_disk_capacity = <integer>
* Percentage to use when advertising disk capacity to the cluster manager.
  This is useful for modifying weighted load balancing in indexer discovery.
* For example, if you set this attribute to 50 for an indexer with a
  500GB disk, the indexer advertises its disk size as 250GB, not 500GB.
* Acceptable value range is 10 to 100.
* Default: 100

pass4SymmKey = <password>
* Secret shared among the nodes in the cluster to prevent any
  arbitrary node from connecting to the cluster. If a peer or
  search head is not configured with the same secret as the manager,
  it is not able to communicate with the manager.
* If it is not set in the [clustering] stanza, the key
  is looked in the [general] stanza
* Unencrypted passwords must not begin with "$1$", as this is used by
  Splunk software to determine if the password is already encrypted.
* No default.

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12

service_interval = <zero or positive integer>
* Only valid when 'mode=manager'.
* Specifies, in seconds, how often the manager runs its service
  loop. In its service loop, the manager checks the state of the
  peers and the buckets in the cluster and also schedules
  corrective action, if possible, for buckets that are not in
  compliance with replication policies.
* A special default value of 0 indicates an auto mode where the service
  interval for the next service call is determined by the time taken by
  previous call. It also sets the minimum service interval to be 0.5 second.
* Service interval is bounded by the values 1 and
  the 'max_auto_service_interval' setting.
  If previous service call takes more than 'max_auto_service_interval'
  seconds, next service interval is set to
  'max_auto_service_interval' seconds.
* Default: 0

service_execution_threshold_ms = <zero or positive integer>
* Only valid when 'mode=manager'.
* Specifies, in milliseconds, the maximum period for one execution
  of the manager's service loop.
* This setting is useful for large clusters with large numbers of
  buckets, to prevent the service loop from blocking
  other operations for significant amounts of time.
* Default: 1500

deferred_cluster_status_update = <boolean>
* Only valid when 'mode=manager'
* If set to true (default), SF/RF met (complete cluster state) checks are
  performed lazily for optimal performance, only when CM is busy with
  cluster maintenance operations (e.g peer addition, fix ups, data rebalance).
* If set to false, SF/RF met checks are performed relatively more aggressively
  to improve accuracy, increasing CM overhead and slowing down cluster
  maintenance operations (e.g peer addition, fix ups, data rebalance).
* Note: It is recommended to be set as true with high number of indexers
  and buckets.
* Default: true

deferred_rest_api_update = <boolean>
* Only valid when 'mode=manager'
* If set to true (default), the manager responds to a REST API call from a source
  peer immediately. It might defer part of the actions related to the call until
  it completes already pending work.
* If set to false, the manager finishes all work for a received REST API call
  and only then responds to the source peer. The response might be delayed
  if the manager is busy with other work.
* Default: true

max_fixup_time_ms = <zero or positive integer>
* Only valid for 'mode=manager'.
* Specifies, in milliseconds, how long each fixup level runs before
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  short circuiting to continue to the next fixup level. This
  introduces an upper-bound on each service level, and likewise
  introduces an upper bound on the full service() call.
* This setting is useful for larger clusters that have lots of
  buckets, where service() calls can consume a significant amount
  of time blocking other operations.
* 0 denotes that there is no max fixup timer.
* Default: 1000

max_delayed_updates_time_ms = <zero or positive integer>
* Only valid for 'mode=manager'.
* Specifies, in milliseconds, how long cluster manager can continuously
  serves the delayed jobs before quitting to run other jobs.
* This setting is useful for larger clusters that have a large number of
  peer nodes and indexes, where customer manager could occasionally receive
  thousands of REST APIs in a short period.
* Do not change this setting without first consulting with Splunk Support.
* 0 denotes that there is no limit to how long the delayed jobs thread
  can run continuously.
* Default: 1000

primary_src_persist_secs = <zero or positive integer>
* Only valid for 'mode=manager'.
* For a warm bucket, this setting specifies the interval after the bucket's
  latest time that a primary rebalance operation attempts to assign the primary
  to the copy on the source peer node. Once the interval is exceeded,
  the rebalance operation no longer considers the bucket's origin when
  assigning its primary.
* For a hot bucket, a non-zero value causes the primary to always reside with the
  source's hot bucket.
* Do not change this setting without first consulting with Splunk Support.
* If set to 0, the rebalance operation does not consider bucket origin
  when assigning primaries, for both hot and warm buckets.
* Default: 604800 (1 week, 60 * 60 * 24 * 7 seconds)

cxn_timeout = <integer>
* Lowlevel timeout, in seconds, for establishing connection between
  cluster nodes.
* Default: 60

send_timeout = <integer>
* Lowlevel timeout, in seconds, for sending data between cluster nodes.
* Default: 60

rcv_timeout = <integer>
* Lowlevel timeout, in seconds, for receiving data between cluster nodes.
* Default: 60

rep_cxn_timeout = <integer>
* Lowlevel timeout, in seconds, for establishing connection for replicating
  data.
* Default: 5

rep_send_timeout = <integer>
* Only valid for 'mode=peer'
* Lowlevel timeout, in seconds, for sending replication slice data between
  cluster nodes.
* This is a soft timeout. When this timeout is triggered on source peer,
  it tries to determine if target is still alive. If it is still alive, it
  reset the timeout for another 'rep_send_timeout interval' and continues.  If
  target has failed or cumulative timeout has exceeded the
  'rep_max_send_timeout', replication fails.
* Default: 5

rep_rcv_timeout = <integer>
* Only valid for 'mode=peer'
* Lowlevel timeout, in seconds, for receiving acknowledgment data from peers.
* This is a soft timeout. When this timeout is triggered on source peer,
  it tries to determine if target is still alive. If it is still alive,
  it reset the timeout for another 'rep_send_timeout' interval and continues.
* If target has failed or cumulative timeout has exceeded
  'rep_max_rcv_timeout', replication fails.
* Default: 10

search_files_retry_timeout = <integer>
* Timeout, in seconds, after which request for search files from a
  peer is aborted.
* To make a bucket searchable, search specific files are copied from
  another source peer with search files. If search files on source
  peers are undergoing chances, it asks requesting peer to retry after
  some time. If cumulative retry period exceeds the specified timeout,
  the requesting peer aborts the request and requests search files from
  another peer in the cluster that may have search files.
* Default: 600 (10 minutes)

re_add_on_bucket_request_error = <boolean>
* Valid only for 'mode=peer'.
* If set to true, peer re-adds itself to the cluster manager if
  cluster manager returns an error on any bucket request. On re-add,
  peer updates the manager with the latest state of all its buckets.
* If set to false, peer doesn't re-add itself to the cluster manager.
  Instead, it updates the manager with those buckets that manager
  returned an error.
* Default: false

decommission_search_jobs_wait_secs = <unsigned integer>
* Valid only for 'mode=peer'.
* Determines maximum time, in seconds, that a peer node waits for search
  jobs to finish before it transitions to the down (or) 'GracefulShutdown'
  state, in response to the 'splunk offline' (or)
  'splunk offline --enforce-counts' command.
* Note: When using this setting, the 'decommission_search_jobs_wait_secs'
  setting in the '[general]' stanza must remain set to its default value.
* You do not need to restart the cluster peer when making changes to
  this setting. This setting reloads automatically.
* Default: 180 (3 minutes)

decommission_node_force_timeout = <seconds>
* Valid only for 'mode=peer' and during node offline operation
* The maximum time, in seconds, that a peer node waits for searchable copy
  reallocation jobs to finish before it transitions to the down (or)
  'GracefulShutdown' state.
* This period begins after the peer node receives a 'splunk offline' command
  or its '/cluster/slave/control/control/decommission' REST endpoint
  is accessed.
* This attribute is not applicable to the  "--enforce-counts" version of the
  "splunk offline" command
* Default: 300 seconds

decommission_force_finish_idle_time = <zero or positive integer>
* Valid only for 'mode=manager'.
* Time in minutes the manager waits before forcibly finishing the
  decommissioning of a peer when there is no progress in the associated
  fixup activity.
* A value of zero (0) means that the manager does not forcibly finish
  decommissioning.
* Default: 0

rolling_restart = restart|shutdown|searchable|searchable_force
* Only valid for 'mode=manager'.
* Determines whether indexer peers restart or shutdown during a rolling
  restart.
* If set to restart, each peer automatically restarts during a rolling
  restart.
* If set to shutdown, each peer is stopped during a rolling restart,
  and the customer must manually restart each peer.
* If set to searchable, the cluster attempts a best-effort to maintain
  a searchable state during the rolling restart by reassigning primaries
  from peers that are about to restart to other searchable peers, and
  performing a health check to ensure that a searchable rolling restart is
  possible.
* If set to 'searchable_force', the cluster performs a searchable
  rolling restart, but overrides the health check and enforces
  'decommission_force_timeout' and 'restart_inactivity_timeout'.
* If set to 'searchable' or 'searchable_force', scheduled searches
  are deferred or run during the rolling restart based on the
  'defer_scheduled_searchable_idx' setting in 'savedsearches.conf'.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: restart

searchable_rolling_peer_state_delay_interval = <zero or positive integer>
* Only valid for 'mode=manager'.
* Specifies an extra time interval, in seconds, during which the peer remains
  in the ReassigningPrimaries state.
* Extending the amount of time the peer remains in the ReassigningPrimaries
  state gives the peer more time to complete inflight searches and ingest
  events.
* This also reduces the impact of incomplete searches and bucket corruption,
  which can impede the searchable rolling restart process.
* Default: 60

searchable_rolling_site_down_policy = full|most|half
* Only valid for 'mode=manager' and is only used if 'multisite=true' and
  'site_by_site=true'.
* Sets the policy for calculating the maximum number of peers in a site allowed
  to shutdown at the same time during a searchable rolling restart.
* If set to 'full', the manager will allow an entire site to shutdown at once
  if there are searchable copies of buckets available in at least 3 sites.
* If set to 'most', the manager will maintain a few peers in a site to act as
  hot bucket streaming targets, and shutdown the other peers. At least one
  peer is available as a streaming target, but there can be more depending on
  the cluster's search factor. The 'most' policy attempts to speed up the
  rolling restart more aggressively than 'half', at the expense of a longer
  period fixing up replication and search factors afterwards.
* If set to 'half', the manager will maintain half the peers in a site to act
  as hot bucket streaming targets, and shutdown the other peers.
* The maximum number of peers allowed down at one time is the smallest peer
  count between 'percent_peers_to_restart' and
  'searchable_rolling_site_down_policy'.
* Default: half

rolling_restart_condition = up|batch_adding|starting
* Only valid for 'mode=manager'.
* Determines the target peer status the manager waits for, when restarting
  a peer during a rolling restart, before it restarts other peers.
* If set to 'up', the manager will wait for a restarting peer to reach the
  'Up' status before restarting other peers. A peer reaches 'Up' status
  when it has finished reporting all of its buckets to the manager. This
  option will always respect 'percent_peers_to_restart'.
* If set to 'batch_adding', the manager will wait for a restarting peer to
  reach the 'BatchAdding' status before restarting other peers. A peer
  reaches 'BatchAdding' status when it is in the process of reporting its
  buckets to the manager. This option will respect 'percent_peers_to_restart'
  as long as the current restarting peer finishes adding before the next
  restarting peer finishes shutting down, which is extremely likely.
* If set to 'starting', the manager will wait for a restarting peer to
  reach the 'Starting' status before restarting other peers. A peer
  reaches 'Starting' status when it first starts up and is in the process
  of scanning its buckets on disk. This option is the fastest, but may
  not always respect 'percent_peers_to_restart'.
* Default: batch_adding

site_by_site = <boolean>
* Only valid for 'mode=manager' and 'multisite=true'.
* If set to true, the manager restarts peers from one site at a time,
  waiting for all peers from a site to restart before moving on to another
  site, during a rolling restart.
* If set to false, the manager randomly selects peers to restart, from
  across all sites, during a rolling restart.
* Default: true

decommission_force_timeout = <zero or positive integer>
* Only valid for 'rolling_restart=searchable_force'
* The amount of time, in seconds, the cluster manager waits for a
  peer in primary decommission status to finish primary reassignment
  and restart, during a searchable rolling restart with timeouts.
* Differs from 'decommission_force_finish_idle_time' in its default value
  and its presence only during a searchable rolling restart with timeouts.
* If you set this parameter to 0, it is automatically reset
  to default value.
* Maximum accepted value is 1800 (30 minutes).
* Default: 180 (3 minutes)

restart_inactivity_timeout = <zero or positive integer>
* Only valid for 'rolling_restart=searchable_force'
* The amount of time, in seconds, that the manager waits for a peer to
  restart and rejoin the cluster before it considers the restart a failure
  and proceeds to restart other peers.
* More specifically, the amount of time that the manager waits for a peer in
  the 'Down' status to transition to 'BatchAdding' or 'Up' status.
* A value of zero (0) means that the manager waits indefinitely for a peer
  to restart.
* Default: 600 (10 minutes)

rebalance_pipeline_batch_size = <integer>
* Valid only for 'mode=manager'.
* Valid only for 'searchable_rebalance=true'.
* The maximum number of buckets for a batch entering the excess bucket removal
  phase of the rebalance pipeline.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: 60

rebalance_primary_failover_timeout = <zero or positive integer>
* Valid only for 'mode=manager'.
* Valid only for 'searchable_rebalance=true'.
* The maximum length of time, in seconds, that the manager waits for primacy to
  be reassigned from the batch of excess buckets to other buckets.
* Default: 75

rebalance_newgen_propagation_timeout = <zero or positive integer>
* Valid only for 'mode=manager'.
* Valid only for 'searchable_rebalance=true'.
* The amount of time, in seconds, that the manager waits for the search heads to
  get the newly committed generation after the discarded buckets' primacy has
  been reassigned.
* Default: 60 (1 minute)

rebalance_search_completion_timeout = <integer>
* Valid only for 'mode=manager'.
* Valid only for 'searchable_rebalance=true'.
* The amount of time, in seconds, that the manager waits for older generation
  searches on indexers to complete before removing any excess buckets.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: 180 (3 minute)

searchable_rebalance = <boolean>
* Valid only for 'mode=manager'.
* Controls whether searches can continue uninterrupted during data rebalancing.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: false

rep_max_send_timeout = <integer>
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* Only valid for 'mode=peer'
* Maximum send timeout, in seconds, for sending replication slice
  data between cluster nodes.
* On rep_send_timeout source peer determines if total send timeout has
  exceeded 'rep_max_send_timeout'. If so, replication fails.
* If cumulative 'rep_send_timeout' exceeds 'rep_max_send_timeout',
  replication fails.
* This setting is dynamically reloadable and does not require restart
  of cluster peer.
* Default: 180 (3 minutes)

rep_max_rcv_timeout = <integer>
* Only valid for 'mode=peer'
* Maximum cumulative receive timeout, in seconds, for receiving
  acknowledgment data from peers.
* On 'rep_rcv_timeout' source peer determines if total
  receive timeout has exceeded 'rep_max_rcv_timeout'.
  If so, replication fails.
* This setting is dynamically reloadable and does not require restart
  of cluster peer.
* Default: 180 (3 minutes)

multisite = <boolean>
* Turns on the multisite feature for this manager.
* Make sure you set site parameters on the peers when you turn this to true.
* Default: false

replication_factor = <positive integer>
* Only valid for 'mode=manager'.
* Determines how many copies of rawdata are created in the cluster.
* Use 'site_replication_factor' instead of this in case 'multisite'
  is turned on.
* Must be greater than 0.
* Default: 3

site_replication_factor = <comma-separated string>
* Only valid for 'mode=manager' and is only used if 'multisite=true'.
* This specifies the per-site replication policy for any given
  bucket represented as a comma-separated list of per-site entries.
* Currently specified globally and applies to buckets in all
  indexes.
* Each entry is of the form <site-id>:<positive integer> which
  represents the number of copies to make in the specified site
* Valid site-ids include two mandatory keywords and optionally
  specific site-ids from site1 to site63
* The mandatory keywords are:
  - origin: Every bucket has a origin site which is the site of
  the peer that originally created this bucket. The notion of
  'origin' makes it possible to specify a policy that spans across
  multiple sites without having to enumerate it per-site.
  - total: The total number of copies needed for each bucket.
* When a site is the origin, it could potentially match both the
  origin and a specific site term. In that case, the max of the
  two is used as the count for that site.
* The total must be greater than or equal to sum of all the other
  counts (including origin).
* The difference between total and the sum of all the other counts
  is distributed across the remaining sites.
* Example 1: site_replication_factor = origin:2, total:3
  Given a cluster of 3 sites, all indexing data, every site has 2
  copies of every bucket ingested in that site and one rawdata
  copy is put in one of the other 2 sites.
* Example 2: site_replication_factor = origin:2, site3:1, total:3
  Given a cluster of 3 sites, 2 of them indexing data, every
  bucket has 2 copies in the origin site and one copy in site3. So
  site3 has one rawdata copy of buckets ingested in both site1 and
  site2 and those two sites have 2 copies of their own buckets.
* Default: origin:2, total:3
```

```
search_factor = <positive integer>
* Only valid for 'mode=manager'.
* Determines how many buckets have index structures pre-built.
* Must be less than or equal to the 'replication_factor' setting and
  greater than 0.
* Default: 2

site_search_factor = <comma-separated string>
* Only valid for 'mode=manager' and is only used if 'multisite=true'.
* This specifies the per-site policy for searchable copies for any
  given bucket represented as a comma-separated list of per-site
  entries.
* This is similar to the 'site_replication_factor' setting.
  Please see that entry for more information on the syntax.
* Default: origin:1, total:2

available_sites = <comma-separated string>
* Only valid for 'mode=manager' and is only used if 'multisite=true'.
* This is a comma-separated list of all the sites in the cluster.
* If 'multisite=true' then 'available_sites' must be
  explicitly set.
* Default: an empty string

forwarder_site_failover = <comma-separated string>
* Only valid for 'mode=manager' and is only used if 'multisite=true'.
* This is a comma-separated list of pair of sites, "site1:site2",
  in the cluster.
* If 'multisite' is turned on 'forwarder_site_failover' must be
  explicitly set.
* Default: an empty string

site_mappings = <comma-separated string>
* Only valid for 'mode=manager'.
* When you decommission a site, you must update this attribute so that the
  origin bucket copies on the decommissioned site are mapped to a remaining
  active site. This attribute maps decommissioned sites to active sites.
  The bucket copies for which a decommissioned site is the origin site
  are then replicated to the active site specified by the mapping.
* Used only if multisite is true and sites have been decommissioned.
* Each comma-separated entry is of the form
  <decommissioned_site_id>:<active_site_id>
  or default_mapping:<default_site_id>.
  <decommissioned_site_id> is a decommissioned site and <active_site_id> is
  an existing site,specified in the 'available_sites' setting.
  For example, if available_sites=site1,site2,site3,site4 and you
  decommission site2, you can map site2 to a remaining site such as site4,
  like this: site2:site4 .
* If a site used in a mapping is later decommissioned, its previous mappings
  must be remapped to an available site. For instance, if you have the
  mapping site1:site2 but site2 is later decommissioned, you can remap
  both site1 and site2 to an active site3 using the following replacement
  mappings - site1:site3,site2:site3.
* Optional entry with syntax default_mapping:<default_site_id> represents the
  default mapping, for cases where an explicit mapping site is not specified.
  For example: default_mapping:site3 maps any decommissioned site to site3,
  if they are not otherwise explicitly mapped to a site.
  There can only be one such entry.
* Example 1: site_mappings = site1:site3,default_mapping:site4.
  The cluster must include site3 and site4 in available_sites, and site1
  must be decommissioned.
  The origin bucket copies for decommissioned site1 is mapped to site3.
  Bucket copies for any other decommissioned sites is mapped to site4.
* Example 2: site_mappings = site2:site3
  The cluster must include site3 in available_sites, and site2 must be
  decommissioned. The origin bucket copies for decommissioned site2 is
  mapped to site3. This cluster has no default.
* Example 3: site_mappings = default_mapping:site5
  The above cluster must include site5 in available_sites.
  The origin bucket copies for any decommissioned sites is mapped onto
  site5.
* Default: an empty string

constrain_singlesite_buckets = <boolean>
* Only valid for 'mode=manager' and is only used if multisite is true.
* Specifies whether the cluster keeps single-site buckets within one site
  in multisite clustering.
* When this setting is "true", buckets in a single site cluster do not
  replicate outside of their site. The buckets follow 'replication_factor'
  'search factor' policies rather than 'site_replication_factor'
  'site_search_factor' policies. This is to mimic the behavior of
  single-site clustering.
* When this setting is "false", buckets in non-multisite clusters can
  replicate across sites, and must meet the specified
  'site_replication_factor' and 'site_search_factor' policies.
* Default: true

heartbeat_timeout = <positive integer>
* Only valid for 'mode=manager'.
* Specifies, in seconds, when the manager considers a peer down. After a
  peer is down, the manager initiates fixup steps to replicate
  buckets from the dead peer to its peers.
* Default: 60

access_logging_for_heartbeats = <boolean>
* Only valid for 'mode=manager'.
* Enables/disables logging to the splunkd_access.log file for peer
  heartbeats.
* NOTE: you do not have to restart manager to set this config parameter.
  Simply run the cli command on manager:
    % splunk edit cluster-config -access_logging_for_heartbeats <<boolean>>
* Default: false (logging disabled)


restart_timeout = <positive integer>
* Only valid for 'mode=manager'.
* This is the amount of time, in seconds, the manager waits for a peer
  to come back when the peer is restarted (to avoid the overhead of
  trying to fixup the buckets that were on the peer).
* More specifically, the amount of time that the manager waits for a
  peer in the 'Restarting' status to transition to the 'Down' status.
* Note that this only works with the offline command or if the peer
  is restarted vi the UI.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: 60

streaming_replication_wait_secs = <positive integer>
* Only valid for 'mode=manager'.
* The amount of time, in seconds, that a peer node waits to restart after
  receiving a restart request from the manager. During this period, the node
  remains in the eRestartRequested state. This time allows the ongoing
  replications on the peer to complete.
* Default: 60

quiet_period = <positive integer>
* Only valid for 'mode=manager'.
* This setting determines the amount of time, in seconds, that the manager is
  quiet upon start-up.
* However, if peers are still registering themselves with the manager after
  the initial quiet_period has elapsed, the manager continues to remain
  quiet until all peers finish registering, up to a total quiet time not to
  exceed 3x the specified 'quiet_period', including the initial quiet time.
* During the quiet time, the manager does not initiate any actions. At the end of
  this period, the manager builds its view of the cluster based on the
  registered information. It then starts normal operations.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: 60
```

```
reporting_delay_period = <positive integer>
* Only valid for 'mode=manager'.
* The acceptable amount of delay, in seconds, for reporting both unmet
  search and unmet replication factors for newly created buckets.
* This setting helps provide more reliable cluster status reporting
  by limiting updates to the specified granularity.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: 30

generation_poll_interval = <positive integer>
* How often, in seconds, the search head polls the manager for
  generation information.
* This setting is valid only if 'mode=manager' or 'mode=searchhead'.
* This setting reloads automatically and does not require a restart.
* Default: 5

max_peer_build_load = <integer>
* This is the maximum number of concurrent tasks to make buckets
  searchable that can be assigned to a peer.
* Default: 2

max_peer_rep_load = <integer>
* This is the maximum number of concurrent non-streaming
  replications that a peer can take part in as a target.
* Default: 5

max_peer_sum_rep_load = <integer>
* This is the maximum number of concurrent summary replications
  that a peer can take part in as either a target or source.
* Default: 5

max_nonhot_rep_kBps = <integer>
* This is the maximum throughput (kB(Bytes)/s) for warm/cold/summary
  replications on a specific source peer. Similar to forwarder's 'maxKBps'
  setting in the limits.conf file.
* This setting throttles total bandwidth consumption for all
  outgoing non-hot replication connections from a given source peer.
  It does not throttle at the per-replication-connection, per-target
  level.
* This setting can be updated without restart on the source peers
  by using the command "splunk edit cluster-config" or by making the
  corresponding REST call.
* If set to 0, signifies unlimited throughput.
* Default: 0

max_replication_errors = <integer>
* Only valid for 'mode=peer'.
* This is the maximum number of consecutive replication errors
  (currently only for hot bucket replication) from a source peer
  to a specific target peer. Until this limit is reached, the
  source continues to roll hot buckets on streaming failures to
  this target. After the limit is reached, the source no
  longer rolls hot buckets if streaming to this specific target
  fails. This is reset if at least one successful (hot bucket)
  replication occurs to this target from this source.
* The special value of 0 turns off this safeguard; so the source
  always rolls hot buckets on streaming error to any target.
* This setting is dynamically reloadable and does not require restart
  of cluster peer.
* Default: 3

searchable_targets = <boolean>
* Only valid for 'mode=manager'.
* Tells the manager to make some replication targets searchable
  even while the replication is going on. This only affects
  hot bucket replication for now.
* Default: true
```

```
searchable_target_sync_timeout = <integer>
* Only valid for 'mode=peer'.
* If a hot bucket replication connection is inactive for this time,
  in seconds, a searchable target flushes out any pending search
  related in-memory files.
* Regular syncing - when the data is flowing through
  regularly and the connection is not inactive - happens at a
  faster rate (default of 5 secs controlled by
  streamingTargetTsidxSyncPeriodMsec in indexes.conf).
* The special value of 0 turns off this timeout behavior.
* Default: 60

target_wait_time = <positive integer>
* Only valid for 'mode=manager'.
* Specifies the time, in seconds, that the manager waits for the
  target of a replication to register itself before it services
  the bucket again and potentially schedules another fixup.
* This setting is dynamically reloadable and does not require restart
  of cluster manager.
* Default: 150 (2 minutes 30 seconds)

summary_wait_time = <positive integer>
* Only valid when 'mode=manager' and 'summary_replication=true'.
* Specifies the time, in seconds, that the manager waits before
  scheduling fixups for a newly 'done' summary that transitioned
  from 'hot_done'. This allows for other copies of the 'hot_done'
  summary to also make their transition into 'done', avoiding
  unnecessary replications.
* Default: 660 (11 minutes)

commit_retry_time = <positive integer>
* Only valid for 'mode=manager'.
* Specifies the interval, in seconds, after which, if the last
  generation commit failed, the manager forces a retry. A retry is usually
  automatically kicked off after the appropriate events. This is just
  a backup to make sure that the manager does retry no matter what.
* Default: 300 (5 minutes)

percent_peers_to_restart = <integer between 0-100>
* Suggested percentage of maximum peers to restart for rolling-restart.
* Actual percentage may vary due to lack of granularity for smaller peer
  sets.
* Regardless of setting, a minimum of 1 peer is restarted per round.

percent_peers_to_reload = <integer between 0-100>
* Only valid for mode=master
* Suggested percentage of maximum peers to reload for bundle push.
* Actual percentage may vary due to lack of granularity for smaller peer
  sets.
* If set to 0, a minimum of 1 peer reloads the bundle per round.

max_peers_to_download_bundle = <positive integer>
* Only valid for 'mode=manager'
* Maximum no. of peers to simultaneously download the configuration bundle
  from the manager, in response to the 'splunk apply cluster-bundle' command.
* When a peer finishes the download, the next waiting peer, if any, begins
  its download.
* If set to 0,  all peers try to download at once.
* Default: 5

precompress_cluster_bundle = <boolean>
* Only valid for 'mode=manager'.
* Whether or not the manager compresses the configuration bundle files before
  it pushes them to peers.
* When set to "true", the manager compresses the configuration bundle, which
  helps reduce network bandwidth consumption during the bundle push.
* Set this option to 'true' only when SSL compression is off. Otherwise, the
  files will be compressed twice, which wastes CPU resources and does not save
  network bandwidth. To turn off SSL compression, set
  'allowSslCompression = false' in server.conf on the manager.
* Compressed bundles are denoted by the suffix ".bundle.gz". Uncompressed
  bundles use the suffix ".bundle".
* Default: true

auto_rebalance_primaries = <boolean>
* Only valid for 'mode=manager'.
* Specifies if the manager should automatically rebalance bucket
  primaries on certain triggers. Currently the only defined
  trigger is when a peer registers with the manager. When a peer
  registers, the manager redistributes the bucket primaries so the
  cluster can make use of any copies in the incoming peer.
* Default: true

rebalance_primaries_execution_limit = <non-negative integer>
* DEPRECATED. Use the 'rebalance_primaries_execution_limit_ms' setting instead.

rebalance_primaries_execution_limit_ms = <non-negative integer>
* Only valid for 'mode=manager'.
* Specifies, in milliseconds, the maximum period for one execution
  of the rebalance primary operation.
* This setting is useful for large clusters with large numbers of
  buckets, to prevent the primary rebalance operation from blocking
  other operations for significant amounts of time.
* The default value of 0 signifies auto mode.  In auto mode, the cluster
  manager uses the value of the 'service_interval' setting to determine the
  maximum time for the operation.
* Default: 0

commit_generation_execution_limit_ms = <non-negative integer>
* Only valid for 'mode=manager'.
* Specifies, in milliseconds, the maximum period for one execution
  of the committing pending generation.
* This setting is useful for large clusters with large numbers of
  buckets, to prevent the commit-geenration operation from blocking
  other operations for significant amounts of time.
* The default value of 0 signifies auto mode.  In auto mode, the cluster
  manager uses the value of the 'service_interval' setting to determine the
  maximum time for the operation.
* If 'service_interval' is auto, the range of this value will be within the
  range of 10ms and 25ms.
* Default: 0

idle_connections_pool_size = <integer>
* Only valid for 'mode=manager'.
* Specifies how many idle http(s) connections that should be kept
  alive to reuse.
* Reusing connections improves the time it takes to send messages to peers
  in the cluster.
* -1 corresponds to "auto", letting the manager determine the
  number of connections to keep around based on the number of peers in the
  cluster.
* Default: -1

use_batch_mask_changes = <boolean>
* Only valid for 'mode=manager'
* Specifies if the manager should process bucket mask changes in
  batch or individually one by one.
* Set to 'false' when there are version 6.1 peers in the cluster for
  backwards compatibility.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: true

service_jobs_msec = <positive integer>
* Only valid for 'mode=manager'.
* Max time, in milliseconds, that the cluster manager spends in servicing
  finished jobs for each service call. Increase this if the 'metrics.log'
  file has very high 'current_size' values.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: 100 (0.1 seconds)

summary_replication = true|false|disabled
* Valid for both 'mode=manager' and 'mode=peer'.
* Cluster Manager:
  If set to true, summary replication is enabled.
  If set to false, summary replication is disabled, but can be enabled
  at runtime.
  If set to disabled, summary replication is disabled. Summary replication
  cannot be enabled at runtime.
* Peers:
  If set to true or false, there is no effect. The indexer follows
  whatever setting is on the Cluster Manager.
  If set to disabled, summary replication is disabled. The indexer does
  no scanning of summaries (increased performance during peers joing
  the cluster for large clusters).
* Default: false (for both Cluster Manager and Peers)

rebalance_threshold = <number between 0.10 and 1.00>
* Only valid for 'mode=manager'.
* During rebalancing buckets amongst the cluster, this threshold is
  used as a percentage to determine when the cluster is balanced.
* 1.00 is 100% indexers fully balanced.
* Default: 0.90

max_auto_service_interval = <positive integer>
* Only valid for 'mode=manager'.
* Only valid when 'service_interval' is in auto mode.
  For example service_interval=0.
* Indicates the maximum value, in seconds, that service interval is
  bounded by when the 'service_interval' is in auto mode. If the
  previous service call took more than 'max_auto_service_interval'
  seconds, the next service call runs after 'max_auto_service_interval'
  seconds.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: 1

buckets_to_summarize = <primaries|primaries_and_hot|all>
* Only valid for 'mode=manager'.
* Determines which buckets are sent to '| summarize' searches (searches that
  build report acceleration and data models).
* Set to "primaries" to apply only to primary buckets.
* Set to "primaries_and_hot" to also apply it to all hot searchable
  buckets.
* Set to "all" to apply the search to all buckets.
* If "summary_replication' is enabled, then 'buckets_to_summarize' defaults
  to "primaries_and_hot".
* Do not change this setting without first consulting with Splunk Support.
* Default: primaries

maintenance_mode = <boolean>
* Only valid for 'mode=manager'.
* To preserve the maintenance mode setting in case of manager
  restart, the manager automatically updates this setting in the
  etc/system/local/server.conf file whenever the user enables or disables
  maintenance mode using CLI or REST.
* NOTE: Do not manually update this setting. Instead use CLI or REST
  to enable or disable maintenance mode.

backup_and_restore_primaries_in_maintenance = <boolean>
* Only valid for 'mode=manager'.
* Determines whether the manager performs a backup/restore of bucket
  primary masks during maintenance mode or rolling-restart of cluster peers.
* If set to true, restoration of primaries occurs automatically when the peers
  rejoin the cluster after a scheduled restart or upgrade.
```

```
* Default: false

max_primary_backups_per_service = <zero or positive integer>
* Only valid for 'mode=manager'.
* For use with the 'backup_and_restore_primaries_in_maintenance' setting.
* Determines the number of peers for which the manager backs up primary
  masks for each service call.
* The special value of 0 causes the manager to back up the primary masks for
  all peers in a single service call.
* Default: 10

allow_default_empty_p4symmkey = <boolean>
* Only valid for 'mode=manager'.
* Affects behavior of manager during start-up, if 'pass4SymmKey'resolves
  to the null string or the default password ("changeme").
* If set to true, the manager posts a warning but still launches.
* If set to false, the manager posts a warning and stops.
* Default: true

register_replication_address = <IP address or fully qualified machine/domain name>
* Only valid for 'mode=peer'.
* This is the address on which a peer is available for accepting
  replication data. This is useful in the cases where a peer host machine
  has multiple interfaces and only one of them can be reached by another
  splunkd instance

register_forwarder_address = <IP address or fully qualified machine/domain name>
* Only valid for 'mode=peer'.
* This is the address on which a peer is available for accepting
  data from forwarder.This is useful in the cases where a splunk host
  machine has multiple interfaces and only one of them can be reached by
  another splunkd instance.

register_search_address = <IP address, or fully qualified machine/domain name>
* Only valid for 'mode=peer'
* This is the address that advertises the peer to search heads.
  This is useful in the cases where a splunk host machine has multiple
  interfaces and only one of them can be reached by another splunkd
  instance.

executor_workers = <positive integer>
* Only valid if 'mode=manager' or 'mode=peer'.
* Number of threads that can be used by the clustering thread pool.
* A value of 0 defaults to 1.
* Default: 10
* This setting reloads automatically and does not require a restart.

local_executor_workers = <positive integer>
* DEPRECATED.

manual_detention = on|on_ports_enabled|off
* Only valid for 'mode=peer'.
* Puts this peer node in manual detention.
* Default: off

allowed_hbmiss_count = <non-zero positive integer>
* Only valid for 'mode=peer'.
* Sets the count of number of heartbeat failures before the peer node
  disconnects from the manager.
* Default: 3

buckets_per_addpeer = <non-negative integer>
* Only valid for 'mode=peer'.
* Controls the number of buckets for each add peer request.
* When a peer is added or re-added to the cluster, it sends the manager
  information for each of its buckets. Depending on the number of buckets,
  this could take a while. For example, a million buckets could require
  more than a minute of the manager's processing time. To prevent the manager
  from being occupied by this single task too long, you can use this setting to
  split large numbers of buckets into several"batch-add-peer" requests.
* If it is invalid or non-existant, the peer uses the default setting instead.
* If it is set to 0, the peer sends only one request with all buckets
  instead of batches.
* You do not need to restart the cluster peer when making changes to
  this setting. This setting reloads automatically.
* Default: 1000

heartbeat_period = <non-zero positive integer>
* Only valid for 'mode=peer'.
* Controls the frequency the peer attempts to send heartbeats.

bucketsize_mismatch_strategy = smallest | largest
* Only valid for 'mode=manager'.
* This setting determines how the manager decides which target peer's bucket copy
  is retained on the cluster when the source peer is not present at the time
  that a hot bucket is rolled, and there is a bucket size mismatch between
  the target peers
* When "largest" is selected, the largest copy of the bucket on any target
  peer gets propagated to the other peers through fixups, overwriting all other
  copies.
* When "smallest" is selected, the smallest copy of the bucket on any target
  peer gets propagated to the other peers through fixups, overwriting all other
  copies.
* Do not alter this value without contacting Splunk Support.
* Default: largest

remote_storage_upload_timeout = <non-zero positive integer>
* Only valid for 'mode=peer'.
* For a remote storage enabled index, this attribute specifies the interval
  in seconds, after which target peers assume responsibility for
  uploading a bucket to the remote storage, if they do not hear from
  the source peer.
* This setting is dynamically reloadable and does not require restart
  of cluster peer.
* Default: 60 (1 minute)

report_remote_storage_bucket_upload_to_targets = <boolean>
* Only valid for 'mode=peer'.
* For a remote storage enabled index, this attribute specifies whether
  the source peer reports the successful bucket upload to target peers.
  This notification is used by target peers to cancel their upload timers
  and synchronize their bucket state with the uploaded bucket on remote
  storage.
* Do not change the value from the default unless instructed by
  Splunk Support.
* You do not need to restart the cluster manager when making changes to
  this setting. This setting reloads automatically.
* Default: false

remote_storage_retention_period = <non-zero positive integer>
* Only valid for 'mode=manager'.
* The interval, in seconds, after which the manager checks buckets
  in remote storage enabled indexes against the retention policy.
  It then triggers freeze operations on the cluster peers as necessary.
* This setting also determines the time that the manager waits
  following a restart before checking retention policy.
* For details on retention policies, examine the
  'maxGlobalDataSizeMB' and 'frozenTimePeriodInSecs' settings.
* This setting is dynamically reloadable and does not require restart
  of cluster manager.
* Default: 900 (15 minutes)

recreate_bucket_attempts_from_remote_storage = <positive integer>
* Only valid for 'mode=manager'.
* Controls the number of attempts the manager makes to recreate the
  bucket of a remote storage enabled index on a random peer node
  in these scenarios:
    * Manager detects that the bucket is not present on any peers.
    * A peer informs the manager about the bucket as part of the
      re-creation of an index.
      See recreate_index_attempts_from_remote_storage attribute.
* Re-creation of the bucket involves the following steps:
    1. Manager provides a random peer with the bucket ID of the bucket that
       needs to be recreated.
    2. Peer fetches the metadata of the bucket corresponding to this
       bucket ID from the remote storage.
    3. Peer creates a bucket with the fetched metadata locally and informs
       the manager that a new bucket has been added.
    4. Manager initiates fix-ups to add the bucket on the necessary number
       of additional peers to match the replication and search factors.
* If set to 0, disables the re-creation of the bucket.
* Default: 10

recreate_bucket_max_per_service = <positive integer>
* Only valid for 'mode=manager'.
* Only applies when using remote storage enabled indexes.
* Controls the maximum number of buckets that the cluster can recreate
  during a service interval.
* Do not change the value from the default unless instructed by
  Splunk Support.
* If set to 0, recreating buckets will go at full speed.
* Default: 20000

recreate_bucket_fetch_manifest_batch_size = <positive integer>
* Only valid for 'mode=manager'.
* Controls the maximum number of bucket IDs for which a peer
  attempts to initiate a parallel fetch of manifests at a time
  in the process of recreating buckets that have been
  requested by the manager.
* The manager sends this setting to all the peers that are
  involved in the process of recreating the buckets.
* Default: 50

recreate_index_attempts_from_remote_storage = <positive integer>
* Only valid for 'mode=manager'.
* Controls the number of attempts the manager makes to recreate
  a remote storage enabled index on a random peer node when the manager
  is informed about the index by a peer.
* Re-creation of an index involves the following steps:
    1. Manager pushes a bundle either when it is ready for service or
       when requested by the user.
    2. Manager waits for the bundle to be applied successfully on the
       peer nodes.
    3. Manager requests that a random peer node provide it with the list
       of newly added remote storage enabled indexes.
    4. Manager distributes a subset of indexes from this list to
       random peer nodes.
    5. Each of those peer nodes fetches the list of bucket IDs for the
       requested index from the remote storage and provides it
       to the manager.
    6. The manager uses the list of bucket IDs to recreate the buckets.
       See recreate_bucket_attempts_from_remote_storage.
* If set to 0, disables the re-creation of the index.
* Default: 10

recreate_index_fetch_bucket_batch_size = <positive integer>
* Only valid for 'mode=manager'.
* Controls the maximum number of bucket IDs that the manager
  requests a random peer node to fetch from remote storage as part of
  a single transaction for a remote storage enabled index.
  The manager uses the bucket IDs for re-creation of the index.
  See the 'recreate_index_attempts_from_remote_storage' setting.
* Default: 2000

use_batch_remote_rep_changes = <boolean> or <positive integer>
* Only valid for 'mode=manager'.
* Specifies whether the manager processes bucket copy changes (to meet
  replication_factor and search_factor) in batch or individually.
* Also controls the maximum number of bucket replications that are processed in
  one replication batch.
* This is applicable to buckets belonging to
  remote storage enabled indexes only.
* Do not change this setting without consulting with Splunk Support.
* This setting is dynamically reloadable and does not require restart
  of cluster manager.
* If 'false' is specified, batching of buckets would be turned off
* If 'true' is specified, batching of buckets would be turned on, the maximum
  number of buckets processed per batch would be the system default (1000)
* If 0 is specified, batching of buckets would be turned off
* If <any non zero positive integer> is specified, batching of buckets
  would be turned on, and the maximum number of buckets processed per batch
  would be the value of the integer specified
* Default: 1000

max_peer_batch_rep_load = <positive integer>
* Only valid for 'mode=manager'.
* This setting is applicable to buckets belonging to
  remote storage enabled indexes only.
* Only valid when 'use_batch_remote_rep_changes=true'
* This setting specifies the maximum number of concurrent batch replications
  that a peer node can take part in, as a source.
* Default: 5

enable_primary_fixup_during_maintenance = <boolean>
* Only valid for 'mode=manager'.
* Specifies whether the manager performs primary fixups during
  maintenance mode. This gets overridden by searchable rolling restart.
* This setting is dynamically reloadable and does not require restart
  of cluster manager.
* Default: true

freeze_during_maintenance = <boolean>
* Only valid for 'mode=manager'.
* Specifies whether the manager will tell peers to freeze buckets during
  maintenance mode.
* This setting is dynamically reloadable and does not require restart
  of cluster manager.
* Default: false

assign_primaries_to_all_sites = <boolean>
* Only valid for 'mode=manager' and 'multisite=true'
* Controls how the manager assigns bucket primary copies on a
  multisite cluster.
* If set to 'true', the manager assigns a primary copy to each site
  defined in 'available_sites', as well as site0.
* If set to 'false':
  * The manager assigns a primary copy only to sites with a search head.
  * Sites without search heads do not get primary copies.
  * When a new site with a search head joins the cluster, or an existing
    site attains its first search head, the cluster manager gradually
    adds all buckets in the cluster to its fixup list to ensure that the
    site will be populated with primaries.
  * If a site loses its search heads, no action is taken to remove
    existing primaries from the site.
* Setting this parameter to 'false' can significantly reduce the work of primary
  assignments, especially if search heads are only on site0 and
  search affinity is disabled.
* Default: false

log_bucket_during_addpeer = <boolean>
* Only valid for 'mode=manager'
* Controls the log level for bucket information during add-peer activities.
* If set to 'true', the manager logs bucket information to INFO level under
  CMMaster componenet during add-peer.
* If set to 'false', the manager logs bucket information to DEBUG level under
  CMMaster component during add-peer.
```

```
* Set to 'false' for large clusters with large numbers of buckets.
* Default: false

max_concurrent_peers_joining = <nonzero integer>
* Only valid for 'mode=manager'.
* Limits the number of peers that are allowed to join the cluster at one time.
* The peer reports its buckets to the cluster manager upon first establishing a
  connection with the manager, and it finishes joining the cluster when all of
  its buckets have been reported.
* Once this limit is hit, any remaining peers check at one second intervals
  for an available slot to join the cluster.
* By limiting the number of peers that can join simultaneously, this setting
  can facilitate faster restart for some peers, thus more quickly restoring
  partial ingest to the cluster.
* Default: 10

enable_parallel_add_peer = <bool>
* Only valid for 'mode=manager'.
* Enables the cluster manager to accept and process multiple 'add peer' requests
  in parallel.
* The upper limit of concurrent 'add peer' requests that the manager can handle is
  limited by the 'max_concurrent_peers_joining setting'.
* When this feature is enabled, the largest recommended value for
  'max_concurrent_peers_joining' is half the number of CPU cores of
  the indexer. For example, if the indexer has 24 CPU cores, the largest
  recommended value for 'max_concurrent_peers_joining' is 12.
* This setting is useful for clusters with large numbers of buckets
  and large numbers of indexers.  It also improves the responsiveness
  of the cluster manager, helping to prevent unnecessary timeouts.
* Default: true

buckets_status_notification_batch_size = <positive integer>
* Only valid for 'mode=peer'.
* Controls the number of existing buckets IDs that the peer
  reports to the manager every notify_scan_period seconds.
  The manager then initiates fix-ups for these buckets.
* CAUTION: Do not modify this setting without guidance from
  Splunk personnel.
* Default: 1000

notify_scan_period = <non-zero positive integer>
* Only valid for 'mode=peer'.
* Controls the frequency, in seconds, that the indexer handles
  the following options:
  1. summary_update_batch_size
  2. summary_registration_batch_size
* CAUTION: Do not modify this setting without guidance from
  Splunk personnel.
* Default: 10

notify_scan_min_period = <non-zero positive integer>
* Only valid for 'mode=peer'.
* Controls the highest frequency, in milliseconds, that the indexer
  scans summary folders
  for summary updates/registrations. The notify_scan_period temporarily
  becomes notify_scan_min_period when there are more summary
  updates/registration events to be processed but has been limited due to
  either summary_update_batch_size or summary_registration_batch_size.
* CAUTION: Do not modify this setting without guidance from Splunk
  personnel.
* Default: 10

notify_buckets_period = <non-zero positive integer>
* Only valid for 'mode=peer'.
* Controls the frequency, in milliseconds, that the indexer handles
  buckets_status_notification_batch_size
* CAUTION: Do not modify this setting without guidance from
  Splunk personnel.
* Default: 10
```

```
summary_update_batch_size = <non-zero positive integer>
* Only valid for 'mode=peer'.
* Controls the number of summary updates the indexer sends per batch to
  the manager every notify_scan_period.
* CAUTION: Do not modify this setting without guidance from
  Splunk personnel.
* Default: 10

summary_registration_batch_size = <non-zero positive integer>
* Only valid for 'mode=peer'.
* Controls the number of summaries that get asynchronously registered
  on the indexer and sent as a batch to the manager every
  notify_scan_period.
* Caution: Do not modify this setting without guidance from Splunk personnel.
* Default: 1000

enableS2SHeartbeat = <boolean>
* Only valid for 'mode=peer'.
* Splunk software monitors each replication connection for
  presence of a heartbeat, and if the heartbeat is not seen for
  's2sHeartbeatTimeout' seconds, it closes the connection.
* Default: true

s2sHeartbeatTimeout = <seconds>
* This specifies the global timeout value, in seconds, for monitoring
  heartbeats on replication connections.
* Splunk software closes a replication connection if heartbeat is not seen
  for 's2sHeartbeatTimeout' seconds.
* Replication source sends heartbeats every 30 seconds.
* Default: 600 (10 minutes)

throwOnBucketBuildReadError = <boolean>
* Valid only for 'mode=peer'.
* If set to true, index clustering peer throws an exception if it
  encounters a journal read error while building the bucket for a new
  searchable copy. It also throws all the search & other files generated
  so far in this particular bucket build.
* If set to false, index clustering peer just logs the error and preserves
  all the search & other files generated so far & finalizes them as it
  cannot proceed further with this bucket.
* Default: false

cluster_label = <string>
* This specifies the label of the indexer cluster

warm_bucket_replication_pre_upload = <boolean>
* Valid only for 'mode=peer'.
* This setting applies to remote storage enabled indexes only.
* If set to true, the target peers replicate all warm bucket contents when necessary for
  bucket-fixing if the source peer has not yet uploaded the bucket to remote storage.
* If set to false, the target peers never replicate warm bucket contents.
* In either case the target peers replicate metadata only, once the source peer uploads
  the bucket to remote storage.
* Default: false

bucketsize_upload_preference = largest | smallest
* Valid only for 'mode=peer'.
* This setting applies to remote storage enabled indexes only.
* This setting determines the criteria a target peer uses when deciding whether to
  overwrite a bucket copy uploaded to remote storage by another target peer. Target
  peers never overwrite copies uploaded by a source peer.
* When "largest" is selected, the largest copy of the bucket on any target
  peer gets uploaded.
* When "smallest" is selected, the smallest copy of the bucket on any target
  peer gets uploaded.
* Note, this and "bucketsize_mismatch_strategy" should follow same scheme.
* Do not alter this value without contacting Splunk Support.
* Default: largest
```

```
upload_rectifier_timeout_secs = <unsigned integer>
* Valid only for 'mode=peer'.
* This setting applies to remote storage enabled indexes only.
* When a peer uploads a bucket copy to remote storage, it checks, after a ,
  timeout based on the value of this setting, to determine whether another
  peer overwrote the copy.
* Depending on the value of "bucketsize_upload_preference" it will determine
  if the bucket needs to be re-uploaded.
* This setting controls the timeout that the peer waits before checking.
* Default: 2

[clustermanager:<stanza>]
* Only valid for 'mode=searchhead' when the search head is a part of
  multiple clusters.

master_uri = <uri>
* DEPRECATED. Use the 'manager_uri' setting instead.

manager_uri = <uri>
* Only valid for 'mode=searchhead' when present in this stanza.
* URI of the cluster manager that this search head should connect to.

pass4SymmKey = <password>
* Secret shared among the nodes in the cluster to prevent any
  arbitrary node from connecting to the cluster. If a search head
  is not configured with the same secret as the manager,
  it not be able to communicate with the manager.
* If it is not present here, the key in the clustering stanza is used.
  If it is not present in the clustering stanza, the value in the general
  stanza is used.
* Unencrypted passwords must not begin with "$1$", as this is used by
  Splunk software to determine if the password is already encrypted.
* No default.

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12

site = <site-id>
* Specifies the site this search head belongs to for this particular manager
  when multisite is enabled (see below).
* Valid values for site-id include site0 to site63.
* The special value "site0" disables site affinity for a search head in a
  multisite cluster. It is only valid for a search head.

multisite = <boolean>
* Turns on the multisite feature for this manager_uri for the search head.
* Make sure the manager has the multisite feature turned on.
* Make sure you specify the site in case this is set to true. If no
  configuration is found in the [clustermanager] stanza, the search head defaults
  to any value for 'site' that might be defined in the [general]
  stanza.
* Default: false

[replication_port://<port>]
# Configure Splunk to listen on a given TCP port for replicated data from
# another cluster member.
# If 'mode=peer' is set in the [clustering] stanza at least one
# 'replication_port' must be configured and not disabled.

disabled = <boolean>
* Set to true to disable this replication port stanza.
* Default: false

listenOnIPv6 = no|yes|only
* Toggle whether this listening port listens on IPv4, IPv6, or both.
* If not present, the setting in the [general] stanza is used.

acceptFrom = <network_acl> ...
* Lists a set of networks or addresses from which to accept connections.
* Separate multiple rules with commas or spaces.
* Each rule can be in one of the following formats:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A Classless Inter-Domain Routing (CIDR) block of addresses
       (examples: "10/8", "192.168.1/24", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard
       (examples: "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches.
  For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

[replication_port-ssl://<port>]
* This configuration is same as the [replication_port] stanza above,
  but uses SSL.

disabled = <boolean>
* Set to true to disable this replication port stanza.
* Default: false

listenOnIPv6 = no|yes|only
* Toggle whether this listening port listens on IPv4, IPv6, or both.
* If not present, the setting in the [general] stanza is used.

acceptFrom = <network_acl> ...
* This setting is the same as the setting in the [replication_port] stanza.

serverCert = <path>
* Full path to file containing private key and server certificate.
* The <path> must refer to a PEM format file.
* No default.

sslPassword = <password>
* Server certificate password, if any.
* No default.

password = <password>
* DEPRECATED; use 'sslPassword' instead.

rootCA = <path>
* DEPRECATED; use '[sslConfig]/sslRootCAPath' instead.
* Full path to the root CA (Certificate Authority) certificate store.
* The <path> must refer to a PEM format file containing one or more root CA
  certificates concatenated together.
* No default.

cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for the SSL connection.
* Must specify 'dhFile' to enable any Diffie-Hellman ciphers.
* Default: The default can vary (See the cipherSuite setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the current default)

sslVersions = <versions_list>
* Comma-separated list of SSL versions to support.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* The special version "*" selects all supported versions.  The version "tls"
  selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list but
  does nothing.
* When configured in FIPS mode, ssl3 is always disabled regardless
  of this configuration.
* Default: The default can vary (See the sslVersions setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the current default)

ecdhCurves = <comma separated list of ec curves>
* ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of Client Hello.
* The server supports only the curves specified in the list.
* Splunk software only supports named curves specified
  by their SHORT names.
* The list of valid named curves by their short/long names can be obtained
  by executing this command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* e.g. ecdhCurves = prime256v1,secp384r1,secp521r1
* Default: The default can vary (See the 'ecdhCurves' setting in
  the $SPLUNK_HOME/etc/system/default/server.conf file for the current default)

dhFile = <path>
* PEM format Diffie-Hellman parameter file name.
* DH group size should be no less than 2048bits.
* This file is required in order to enable any Diffie-Hellman ciphers.
* No default.

dhfile = <path>
* DEPRECATED; use 'dhFile' instead.

supportSSLV3Only = <boolean>
* DEPRECATED.  SSLv2 is now always disabled.  The exact set of SSL versions
  allowed is now configurable by using  the 'sslVersions' setting above.

useSSLCompression = <boolean>
* If true, enables SSL compression.
* Default: true

compressed = <boolean>
* DEPRECATED. Use 'useSSLCompression' instead.
* Used only if 'useSSLCompression' is not set.

requireClientCert = <boolean>
* Requires that any peer that connects to replication port has a certificate
  that can be validated by certificate authority specified in rootCA.
* Default: false

allowSslRenegotiation = <boolean>
* In the SSL protocol, a client may request renegotiation of the connection
  settings from time to time.
* Setting this to false causes the server to reject all renegotiation
  attempts, breaking the connection.  This limits the amount of CPU a
  single TCP connection can use, but it can cause connectivity problems
  especially for long-lived connections.
* Default: true

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* Optional.
* Check the common name of the client's certificate against this list of names.
* requireClientCert must be set to "true" for this setting to work.
* No default.

sslAltNameToCheck =  <alternateName1>, <alternateName2>, ...
* Optional.
* Check the alternate name of the client's certificate against this list
  of names.
* If there is no match, assume that Splunk is not authenticated against this
  server.
* requireClientCert must be set to true for this setting to work.
* No default.
```

自检设置

```
[introspection:generator:disk_objects]
* For 'introspection_generator_addon', packaged with Splunk; provides the
  data ("i-data") consumed, and reported on, by 'introspection_viewer_app'
  (due to ship with a future release).
* This stanza controls the collection of i-data about: indexes; bucket
  superdirectories (homePath, coldPath, ...); volumes; search dispatch
  artifacts.
* On forwarders the collection of index, volumes and dispatch disk objects
  is disabled.

acquireExtra_i_data = true | false
* If true, extra Disk Objects i-data is emitted; you can gain more insight
  into your site, but at the cost of greater resource consumption both
  directly (the collection itself) and indirectly (increased disk and
  bandwidth utilization, to store the produced i-data).
* Please consult documentation for list of regularly emitted Disk Objects
  i-data, and extra Disk Objects i-data, appropriate to your release.
* Default: false

collectionPeriodInSecs = <positive integer>
* Controls frequency of Disk Objects i-data collection; higher frequency
  (hence, smaller period) gives a more accurate picture, but at the cost of
  greater resource consumption both directly (the collection itself) and
  indirectly (increased disk and bandwidth utilization, to store the
  produced i-data).
* Default: 600 (10 minutes)

[introspection:generator:disk_objects__indexes]
  * This stanza controls the collection of i-data about indexes.
  * Inherits the values of 'acquireExtra_i_data' and 'collectionPeriodInSecs'
    attributes from the 'introspection:generator:disk_objects' stanza, but
    may be enabled/disabled independently of it.
  * This stanza should only be used to force collection of i-data about
    indexes on dedicated forwarders.
  * Default: Data collection is disabled on universal forwarders and
    enabled on all other installations.

[introspection:generator:disk_objects__volumes]
  * This stanza controls the collection of i-data about volumes.
  * Inherits the values of 'acquireExtra_i_data' and 'collectionPeriodInSecs'
    attributes from the 'introspection:generator:disk_objects' stanza, but
    may be enabled/disabled independently of it.
  * This stanza should only be used to force collection of i-data about
    volumes on dedicated forwarders.
  * Default: Data collection is disabled on universal forwarders and
    enabled on all other installations.

[introspection:generator:disk_objects__dispatch]
  * This stanza controls the collection of i-data about search dispatch
    artifacts.
  * Inherits the values of 'acquireExtra_i_data' and 'collectionPeriodInSecs'
    attributes from the 'introspection:generator:disk_objects' stanza, but
    may be enabled/disabled independently of it.
  * This stanza should only be used to force collection of i-data about
    search dispatch artifacts on dedicated forwarders.
  * Default: Data collection is disabled on universal forwarders and
    enabled on all other installations.

[introspection:generator:disk_objects__fishbucket]
* This stanza controls the collection of i-data about:
  $SPLUNK_DB/fishbucket, where per-input status of file-based
  inputs is persisted.
* Inherits the values of 'acquireExtra_i_data' and 'collectionPeriodInSecs'
  attributes from the 'introspection:generator:disk_objects' stanza, but may
  be enabled/disabled independently of it.

[introspection:generator:disk_objects__bundle_replication]
* This stanza controls the collection of i-data about:
  bundle replication metrics of distributed search
* Inherits the values of 'acquireExtra_i_data' and 'collectionPeriodInSecs'
  attributes from the 'introspection:generator:disk_objects' stanza, but may
  be enabled/disabled independently of it.

[introspection:generator:disk_objects__partitions]
* This stanza controls the collection of i-data about: disk partition space
  utilization.
* Inherits the values of 'acquireExtra_i_data' and 'collectionPeriodInSecs'
  attributes from the 'introspection:generator:disk_objects' stanza, but may
  be enabled/disabled independently of it.

[introspection:generator:disk_objects__summaries]
* Introspection data about summary disk space usage. Summary disk usage
  includes both data model and report summaries. The usage is collected
  for each summaryId, locally at each indexer.

disabled = true | false
* If not specified, inherits the value from
  [introspection:generator:disk_objects] stanza.

collectionPeriodInSecs = <positive integer>
* Controls frequency, in seconds, of Disk Objects - summaries
  collection; higher frequency (hence, smaller period) gives a more accurate
  picture, but at the cost of greater resource consumption directly
  (the summaries collection itself);
  it is not recommended for a period less than 15 minutes.
* If you enable summary collection, the first collection happens 5 minutes
  after the Splunk instance is started. For every subsequent collection, this
  setting is honored.
* If 'collectionPeriodInSecs' is smaller than 5 * 60, it resets to
  30 minutes internally.
* Set to (N*300) seconds. Any remainder is ignored.
* Default: 1800 (30 minutes)

[introspection:generator:resource_usage]
* For 'introspection_generator_addon', packaged with Splunk; provides the
  data ("i-data") consumed, and reported on, by 'introspection_viewer_app'
  (due to ship with a future release).
* "Resource Usage" here refers to: CPU usage; scheduler overhead; main
  (physical) memory; virtual memory; pager overhead; swap; I/O; process
  creation (a.k.a. forking); file descriptors; TCP sockets; receive/transmit
  networking bandwidth.
* Resource Usage i-data is collected at both hostwide and per-process
  levels; the latter, only for processes associated with this SPLUNK_HOME.
* Per-process i-data for Splunk search processes include additional,
  search-specific, information.

acquireExtra_i_data = true | false
* If set to true, extra Resource Usage i-data is emitted; you can gain
  more insight into your site, but at the cost of greater resource
  consumption both directly (the collection itself) and indirectly
  (increased disk and bandwidth utilization, to store the produced i-data).
* Please consult documentation for list of regularly emitted Resource Usage
  i-data, and extra Resource Usage i-data, appropriate to your release.
* Default: false

collectionPeriodInSecs = <positive integer>
* Controls frequency of Resource Usage i-data collection; higher frequency
  (hence, smaller period) gives a more accurate picture, but at the cost of
  greater resource consumption both directly (the collection itself) and
  indirectly (increased disk and bandwidth utilization, to store the
  produced i-data).
* Default: 600 (10 minutes) on Universal Forwarders, and 10 (1/6th of a minute)
  on non-Universal Forwarders

[introspection:generator:resource_usage__iostats]
* This stanza controls the collection of i-data about: IO Statistics data
* "IO Statistics" here refers to: read/write requests; read/write sizes;
  io service time; cpu usage during service
* IO Statistics i-data is sampled over the collectionPeriodInSecs
* Does not inherit the value of the 'collectionPeriodInSecs' attribute from the
  'introspection:generator:resource_usage' stanza, and may be enabled/disabled
  independently of it.

collectionPeriodInSecs = <positive integer>
* Controls interval of IO Statistics i-data collection; higher intervals
  gives a more accurate picture, but at the cost of greater resource consumption
  both directly (the collection itself) and indirectly (increased disk and
  bandwidth utilization, to store the produced i-data).
* Default: 60 (1 minute)

[introspection:generator:kvstore]
* For 'introspection_generator_addon', packaged with Splunk Enterprise.
* "KV Store" here refers to: statistics information about KV Store process.

serverStatsCollectionPeriodInSecs = <positive integer>
* Controls frequency, in seconds, of KV Store server status collection
* Default: 27

operationStatsCollectionPeriodInSecs = <positive integer>
* Controls frequency, in seconds, of KV Store operation statistics collection (currentOp).
* Default: 60 seconds

collectionStatsCollectionPeriodInSecs = <positive integer>
* Controls frequency, in seconds, of KV Store db statistics collection.
* Default: 600 (10 minutes)

profilingStatsCollectionPeriodInSecs = <positive integer>
* Controls frequency, in seconds, of KV Store profiling data collection.
* Default: 5 seconds

rsStatsCollectionPeriodInSecs = <positive integer>
* Controls frequency, in seconds, of KV Store replica set stats collection
* Default: 60 seconds

[introspection:distributed-indexes]
* This stanza controls the collection of information for distributed indexes.

disabled = <boolean>
* Whether or not collection of introspection information on distributed
  indexes is disabled.
* If set to "false", information on distributed indexes is collected.
* This provides additional insight into index usage at the cost of greater
  resource consumption.
* Default: true

collectionPeriodInSecs = <positive integer>
* The frequency, in seconds, of distributed index data collection.
  Shorter intervals provide more accurate results, at the cost of
  greater resource consumption.
* Must be set between 300 (5 minutes) and 86400 (24 hours).
* Default: 3600 (60 minutes)

collectLocalIndexes = <boolean>
* This setting determines whether the search head retrieves index metadata,
   such as current size and event count.
* In single-instance configurations, where the instance serves as both search head and indexer,
     set the value to "true", so that the local index metadata is retrieved.
* In distributed search deployments, with separate search heads and indexers, set the
     value to "false" to retrieve metadata only from indexes on the indexers.
```

```
* Default: false
```

Splunk 启动用以控制命令的设置

```
[commands:user_configurable]

prefix = <path>
* All non-internal commands started by splunkd are prefixed with this
  string, allowing for "jailed" command execution.
* Should be only one word.  In other words, commands are supported, but
  commands and arguments are not.
* Applies to commands such as: search scripts, scripted inputs, SSL
  certificate generation scripts.  (Any commands that are
  user-configurable).
* Does not apply to trusted/non-configurable command executions, such as:
  splunk search, splunk-optimize, gunzip.
* $SPLUNK_HOME is expanded.
* No default.
```

数据结构搜索（DFS）配置

```
[dfs]

disabled = <boolean>
* When set to 'false' for the [dfs] stanza, this setting enables data fabric
  search functionality for this instance.
* A 'false' setting causes the Splunk software to start the DFSMaster Java
  process in a separate process. This process is central to Data Fabric Search
  funtionality.
* Default: true

dfc_ip_address = <IP address>
* This setting provides the host IP address of the data fabric coordinator
  (DFC) process.
* Data Fabric Search uses the DFC process to run DFS queries on DFS
  worker nodes. The DFC process needs to know its own IP address.
* Default: If an IP address is not provided, the DFC process uses the
  IP address of the local host.

port = <port>
* Identifies the port on which the DFSMaster Java process runs.
* Default: 9000

extra_kryo_registered_classes = <class names>
* This setting provides a comma-separated list of fully-qualified Java class
  names.
* When this list exists, Spark registers the list of classes for Kryo
  serialization. Spark uses the Kryo library to serialize Java objects.
* Default: empty string

spark_master_host = [<IP address>|<host name>]
* This setting identifies the Spark master.
* Default: 127.0.0.1

spark_master_webui_port = <port>
* Identifies the port for the Spark master web UI.
* Default: 8080

spark_master_connect_timeout = <unsigned integer>
* Sets the timeout (in seconds) for the initial connection from the DFS
  master to the Spark master.
* A value of 0 indicates no timeout. The process will attempt to establish
```

```
  a connection indefinitely.
* Default: 10 seconds

spark_home = <path>
* Absolute location of Spark home.
* Used only if SPARK_HOME is unset.
* No default.

connection_timeout = <integer>
* Low-level timeout, in seconds, for establishing a connection between
  a search peer and a DFS worker.
* Default: 180

connection_retries = <integer>
* Number of retries to establish a connection between a search peer and a
  DFS worker.
* Default: 5

[app_backup]
backup_path = <path>
* Full path to the directory that contains configuration backups created by Splunk Enterprise.
* For search head clusters, this directory resides on the deployer.
* Default: $SPLUNK_HOME/var/backup
```

搜索头群集化配置

```
[shclustering]
disabled = <boolean>
* Disables or enables search head clustering on this instance.
* When enabled, the captain needs to be selected via a
  bootstrap mechanism. Once bootstrapped, further captain
  selections are made via a dynamic election mechanism.
* When enabled, you must also specify the cluster member's own server
  address / management URI for identification purpose. This can be
  done in 2 ways: by specifying the 'mgmt_uri' setting individually on
  each member or by specfing pairs of 'GUID, mgmt-uri' strings in the
  servers_list attribute.
* Default: true

mgmt_uri = [ mgmt-URI ]
* The management URI is used to identify the cluster member's own address to
  itself.
* Either 'mgmt_uri' or 'servers_list' is necessary.
* The 'mgmt_uri' setting is simpler to author but is unique for each member.
* The 'servers_list' setting is more involved, but can be copied as a
  config string to all members in the cluster.

servers_list = [ <(GUID, mgmt-uri);>+ ]
* A semicolon separated list of instance GUIDs and management URIs.
* Each member uses its GUID to identify its own management URI.

adhoc_searchhead = <boolean>
* This setting configures a member as an ad-hoc search head; i.e., the member
  does not run any scheduled jobs.
* Use the setting 'captain_is_adhoc_searchhead' to reduce compute load on the
  captain.
* Default: false

no_artifact_replications = <boolean>
* Prevent this Search Head Cluster member to be selected as a target for
  replications.
* This is an advanced setting, and not to be changed without proper
  understanding of the implications.
* Default: false
```

```
precompress_artifacts = <boolean>
* Determines whether this search head cluster member compresses the
  search artifacts before replicating them to other members.
* When set to "true", the search head compresses the artifacts
  before replicating them to all other members.
  This helps reduce network bandwidth consumption during artifact replications.
* Set this option to 'true' only when SSL compression is off on
  each search head cluster member. To turn off SSL compression, set
  'allowSslCompression = false' in the [sslconfig] stanza in server.conf
  of each member.
* Default: true

captain_is_adhoc_searchhead = <boolean>
* This setting prohibits the captain from running scheduled jobs.
* The captain is dedicated to controlling the activities of the cluster,
  but can also run adhoc search jobs from clients.
* Default: false

preferred_captain = <boolean>
* The cluster tries to assign captaincy to a member with
 'preferred_captain=true'.
* Note that it is not always possible to assign captaincy to a member with
  preferred_captain=true - for example, if none of the preferred members is
  reachable over the network. In that case, captaincy might remain on a
  member with preferred_captain=false.
* Default: true

prevent_out_of_sync_captain = <boolean>
* This setting prevents a node that could not sync config changes to current
  captain from becoming the cluster captain.
* This setting takes precedence over the preferred_captain setting. For example,
  if there are one or more preferred captain nodes but the nodes cannot
  sync config changes with the current captain, then the current captain
  retains captaincy even if it is not a preferred captain.
* This must be set to the same value on all members.
* Default: true

replication_factor = <positive integer>
* Determines how many copies of search artifacts are created in the cluster.
* This must be set to the same value on all members.
* Default: 3

pass4SymmKey = <password>
* Secret shared among the members in the search head cluster to prevent any
  arbitrary instance from connecting to the cluster.
* All members must use the same value.
* If set in the [shclustering] stanza, it takes precedence over any setting
  in the [general] stanza.
* Unencrypted passwords must not begin with "$1$", as this is used by
  Splunk software to determine if the password is already encrypted.
* Default: The 'changeme' from the [general] stanza in the default the
  server.conf file.

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12

async_replicate_on_proxy = <boolean>
* If the jobs/${sid}/results REST endpoint had to be proxied to a different
  member due to missing local replica, this attribute automatically
  schedules an async replication to that member when set to true.
* Default: true
```

```
master_dump_service_periods = <integer>
* If SHPMaster info is switched on in log.cfg, then captain statistics
  are dumped in splunkd.log after the specified number of service periods.
  Purely a debugging aid.
* Default: 500

long_running_jobs_poll_period = <integer>
* Long running delegated jobs are polled by the captain every
  "long_running_jobs_poll_period" seconds to ascertain whether they are
  still running, in order to account for potential node/member failure.
* Default: 600 (10 minutes)

scheduling_heuristic = <string>
* This setting configures the job distribution heuristic on the captain.
* There are currently two supported strategies: 'round_robin' or
  'scheduler_load_based'.
* Default: 'scheduler_load_based'

id = <GUID>
* Unique identifier for this cluster as a whole, shared across all cluster
  members.
* Default: Splunk software arranges for a unique value to be generated and
  shared across all members.

cxn_timeout = <integer>
* Low-level timeout, in seconds, for establishing connection between
  cluster members.
* Default: 60

send_timeout = <integer>
* Low-level timeout, in seconds, for sending data between search head
  cluster members.
* Default: 60

rcv_timeout = <integer>
* Low-level timeout, in seconds, for receiving data between search head
  cluster members.
* Default: 60

cxn_timeout_raft = <integer>
* Low-level timeout, in seconds, for establishing connection between search
  head cluster members for the raft protocol.
* Default: 2

send_timeout_raft = <integer>
* Low-level timeout, in seconds, for sending data between search head
  cluster members for the raft protocol.
* Default: 5

rcv_timeout_raft = <integer>
* Low-level timeout, in seconds, for receiving data between search head
  cluster members for the raft protocol.
* Default: 5

rep_cxn_timeout = <integer>
* Low-level timeout, in seconds, for establishing connection for replicating
  data.
* Default: 5

rep_send_timeout = <integer>
* Low-level timeout, in seconds, for sending replication slice data
  between cluster members.
* This is a soft timeout. When this timeout is triggered on source peer,
  it tries to determine if target is still alive. If it is still alive,
  it reset the timeout for another rep_send_timeout interval and continues.
  If target has failed or cumulative timeout has exceeded
  rep_max_send_timeout, replication fails.
* Default: 5
```

```
rep_rcv_timeout = <integer>
* Low-level timeout, in seconds, for receiving acknowledgement data from
  members.
* This is a soft timeout. When this timeout is triggered on source member,
  it tries to determine if target is still alive. If it is still alive,
  it reset the timeout for another rep_send_timeout interval and continues.
  If target has failed or cumulative timeout has exceeded
  the 'rep_max_rcv_timeout' setting, replication fails.
* Default: 10

rep_max_send_timeout = <integer>
* Maximum send timeout, in seconds, for sending replication slice data
  between cluster members.
* On 'rep_send_timeout' source peer determines if total send timeout has
  exceeded rep_max_send_timeout. If so, replication fails.
* If cumulative rep_send_timeout exceeds 'rep_max_send_timeout', replication
  fails.
* Default: 600 (10 minutes)

rep_max_rcv_timeout = <integer>
* Maximum cumulative receive timeout, in seconds, for receiving acknowledgement
  data from members.
* On 'rep_rcv_timeout' source member determines if total receive timeout has
  exceeded 'rep_max_rcv_timeout'. If so, replication fails.
* Default: 600 (10 minutes)

log_heartbeat_append_entries = <boolean>
* If true, Splunk software logs the the low-level heartbeats between members in
  splunkd_access.log file. These heartbeats are used to maintain the authority
  of the captain authority over other members.
* Default: false

election_timeout_ms = <positive_integer>
* The amount of time, in milliseconds, that a member waits before
  trying to become the captain.
* Note that modifying this value can alter the heartbeat period (See
  election_timeout_2_hb_ratio for further details)
* A very low value of election_timeout_ms can lead to unnecessary captain
  elections.
* Default: 60000 (1 minute)

election_timeout_2_hb_ratio = <positive_integer>
* The ratio between the election timeout, set in election_timeout_ms, and
  the raft heartbeat period.
* Raft heartbeat period = election_timeout_ms / election_timeout_2_hb_ratio
* A typical ratio between 5 - 20 is desirable. Default is 12 to keep the
  raft heartbeat period at 5s, i.e election_timeout_ms(60000ms) / 12
* This ratio determines the number of heartbeat attempts that would fail
  before a member starts to timeout and tries to become the captain.

heartbeat_timeout = <positive integer>
* The amount of time, in seconds, that the captain considers a member down.
  After a member is down, the captain initiates fixup steps to replicate
  artifacts from the dead member to its peers.
* This heartbeat exchanges data between the captain and members, which helps in
  maintaining the in-memory centralized state for all the cluster members.
* Note that this heartbeat is different from the Raft heartbeat described
  in the 'election_timeout_2_hb_ratio' setting.
* Default: 60 (1 minute)

raft_rpc_backoff_time_ms = <positive integer>
* Provides a delay, in milliseconds, should a raft RPC request fail.
* This avoids rapid connection requests being made to unreachable peers.
* This setting should not normally be changed from the default.
* Default: 5000 (5 seconds)

access_logging_for_heartbeats = <boolean>
* Only valid on captain
* Enables/disables logging to the splunkd_access.log file for member heartbeats
* NOTE: you do not have to restart captain to set this config parameter.
  Simply run the cli command on master:
  % splunk edit shcluster-config -access_logging_for_heartbeats <<boolean>>
* Default: false (logging disabled)

restart_timeout = <positive integer>
* This is the amount of time the captain waits for a member to come
  back when the instance is restarted (to avoid the overhead of
  trying to fixup the artifacts that were on the peer).

quiet_period = <positive integer>
* Determines the amount of time, in seconds, for which a newly
  elected captain waits for members to join. During this period the
  captain does not initiate any fixups but instead waits for the
  members to register themselves. Job scheduling and conf
  replication still happen as usual during this time. At the end
  of this time period, the captain builds its view of the cluster
  based on the registered peers and starts normal
  processing.
* Default: 60

max_peer_rep_load = <integer>
* This is the maximum number of concurrent replications that a
  member can take part in as a target.
* Default: 5

target_wait_time = <positive integer>
* Specifies the time, in seconds, that the captain waits for the target
  of a replication to register itself before it services the artifact again
  and potentially schedules another fixup.
* Default: 150

manual_detention = on|off
* This property toggles manual detention on member.
* When a node is in manual detention, it does not accept new search jobs,
  including both scheduled and ad-hoc searches. It also does not receive
  replicated search artifacts from other nodes.
* Default: off

percent_peers_to_restart = <integer>
* The percentage of members to restart at one time during rolling restarts.
* Actual percentage may vary due to lack of granularity for smaller peer
  sets regardless of setting, a minimum of 1 peer is restarted per
  round.
* Valid values are between 0 and 100.
* CAUTION: Do not set this attribute to a value greater than 20%.
  Otherwise, issues can arise during the captain election process.

rolling_restart_with_captaincy_exchange = <boolean>
* If this boolean is turned on, captain tries to exchange captaincy
  with another node during rolling restart.
* If set to false, captain restarts and captaincy transfers to some
  other node.
* Default: true

rolling_restart = restart|searchable|searchable_force
* Determines the rolling restart mode for a search head cluster.
* If set to restart, a rolling restart runs in classic mode.
* If set to searchable, a rolling restart runs in searchable (minimal
  search disruption) mode.
* If set to searchable_force, the search head cluster performs a
  searchable rolling restart, but overrides the health check
* Note: You do not have to restart any search head members to set this
  parameter.
  Run this CLI command from any member:
  % splunk edit shcluster-config -rolling_restart
    restart|searchable|searchable_force
* Default: restart (runs in classic rolling-restart mode)
```

```
decommission_search_jobs_wait_secs = <unsigned integer>
* The amount of time, in seconds, that a search head cluster member waits for
  existing searches to complete before restarting.
* Applies only when rolling restart is triggered in searchable or
  searchable_force mode
  (i.e.'rolling_restart' is set to "searchable" or "searchable_force").
* Note: You do not have to restart search head members to set this parameter.
  Run this CLI command from any member:
  % splunk edit shcluster-config -decommission_search_jobs_wait_secs
    <positive integer>
* Note: If this setting is used 'decommission_search_jobs_wait_secs'
  defined in the '[general]' stanza should be left unchanged at it default value.
* Default: 180

register_replication_address = <IP address ormachine/domain name>
* This setting is the address on which a member is available for
  accepting replication data. This is useful in the cases where a member
  host machine has multiple interfaces and only one of them can be reached
  by another splunkd instance.
* Can be an IP address, or fully qualified machine/domain name.

executor_workers = <positive integer>
* Number of threads that can be used by the search head clustering
  threadpool.
* A value of 0 is interpreted as 1.
* Default: 10

heartbeat_period = <non-zero positive integer>
* Controls the frequency, in seconds, with which the member attempts
  to send heartbeats to the captain.
* This heartbeat exchanges data between the captain and members, which
  helps in maintaining the in-memory centralized state for all the
  cluster members.
* Note that this heartbeat period is different from the Raft heartbeat
  period in the election_timeout_2_hb_ratio setting.
* Default: 5

enableS2SHeartbeat = <boolean>
* Splunk software monitors each replication connection for presence of
  a heartbeat.
* If the heartbeat is not seen for s2sHeartbeatTimeout seconds, it closes
  the connection.
* Default: true

s2sHeartbeatTimeout = <integer>
* This specifies the global timeout, in seconds, value for monitoring
  heartbeats on replication connections.
* Splunk software closes a replication connection if a heartbeat is not seen
  for 's2sHeartbeatTimeout' seconds.
* Replication source sends a heartbeat every 30 seconds.
* Default: 600 (10 minutes)

captain_uri = [ static-captain-URI ]
* The management URI of static captain is used to identify the cluster
  captain for a static captain.

election = <boolean>
* This is used to classify a cluster as static or dynamic (RAFT based).
* If set to "false", a static captain, which is used for DR situation.
* If set to "true", a dynamic captain election enabled through RAFT protocol.

mode = <member>
* Accepted values are captain and member, mode is used to identify
  the function of a node in static search head cluster. Setting mode
  as captain assumes it to function as both captain and a member.

#proxying related
sid_proxying = <boolean>
* Enable or disable search artifact proxying.
* Changing this affects the proxying of search results, and jobs feed
  is not cluster-aware.
* Only for internal/expert use.
* Default: true

ss_proxying = <boolean>
* Enable or disable saved search proxying to captain.
* Changing this affects the behavior of Searches and Reports page
  in Splunk Web.
* Only for internal/expert use.
* Default: true

ra_proxying = <boolean>
* Enable or disable saved report acceleration summaries proxying to captain.
* Changing this affects the behavior of report acceleration summaries
  page.
* Only for internal/expert use.
* Default: true

alert_proxying = <boolean>
* Enable or disable alerts proxying to captain.
* Changing this impacts the behavior of alerts, and essentially make them
  not cluster-aware.
* Only for internal/expert use.
* Default: true

csv_journal_rows_per_hb = <integer>
* Controls how many rows of CSV from the delta-journal are sent per hb
* Used for both alerts and suppressions
* Do not alter this value without contacting Splunk Support.
* Default: 10000

conf_replication_period = <integer>
* Controls how often, in seconds, a cluster member replicates
  configuration changes.
* A value of 0 disables automatic replication of configuration changes.
* Default: 5

conf_replication_max_pull_count = <integer>
* Controls the maximum number of configuration changes a member
  replicates from the captain at one time.
* A value of 0 disables any size limits.
* Default: 1000

conf_replication_max_push_count = <integer>
* Controls the maximum number of configuration changes a member
  replicates to the captain at one time.
* A value of 0 disables any size limits.
* Default: 100

conf_replication_max_json_value_size = [<integer>|<integer>[KB|MB|GB]]
* Controls the maximum size of a JSON string element at any nested
  level while parsing a configuration change from JSON representation.
* If a knowledge object created on a member has some string element
  that exceeds this limit, the knowledge object is not replicated
  to the rest of the search head cluster, and a warning that mentions
  conf_replication_max_json_value_size is written to splunkd.log.
* If you do not specify a unit for the value, the unit defaults to bytes.
* The lower limit of this setting is 512KB.
* When increasing this setting beyond the default, you must take into
  account the available system memory.
* Default: 15MB

conf_replication_include.<conf_file_name> = <boolean>
* Controls whether Splunk replicates changes to a particular type of *.conf
  file, along with any associated permissions in *.meta files.
* Default: false

conf_replication_summary.whitelist.<name> = <whitelist_pattern>
```

```
* Files to be included in configuration replication summaries.

conf_replication_summary.blacklist.<name> = <blacklist_pattern>
* Files to be excluded from configuration replication summaries.

conf_replication_summary.concerning_file_size = <integer>
* Any individual file within a configuration replication summary that is
  larger than this value (in MB) triggers a splunkd.log warning message.
* Default: 50

conf_replication_summary.period = <timespan>
* Controls how often configuration replication summaries are created.
* Default: 1m (1 minute)

conf_replication_purge.eligibile_count = <integer>
* Controls how many configuration changes must be present before any become
  eligible for purging.
* In other words: controls the minimum number of configuration changes
  Splunk software remembers for replication purposes.
* Default: 20000

conf_replication_purge.eligibile_age = <timespan>
* Controls how old a configuration change must be before it is eligible for
  purging.
* Default: 1d (1 day).

conf_replication_purge.period = <timespan>
* Controls how often configuration changes are purged.
* Default: 1h (1 hour)

conf_replication_find_baseline.use_bloomfilter_only = <boolean>
* Controls whether or not a search head cluster only uses bloom filters to
  determine a baseline, when it replicates configurations.
* Set to true to only use bloom filters in baseline determination during
  configuration replication.
* Set to false to first attempt a standard method, where the search head
  cluster captain interacts with members to determine the baseline, before
  falling back to using bloom filters.
* Default: false

conf_deploy_repository = <path>
* Full path to directory containing configurations to deploy to cluster
  members.

conf_deploy_staging = <path>
* Full path to directory where preprocessed configurations may be written
  before being deployed cluster members.

conf_deploy_concerning_file_size = <integer>
* Any individual file within <conf_deploy_repository> that is larger than
  this value (in MB) triggers a splunkd.log warning message.
* Default: 50

conf_deploy_precompress_bundles = <boolean>
* Determines whether or not the deployer compresses the configuration bundle
  files before pushing them to search heads, which reduces network
  bandwidth consumption.
* Set this option to "true" only when SSL compression is off. Otherwise, the
  files will be compressed twice, which wastes CPU resources and does not save
  network bandwidth. To turn off SSL compression, set
  "allowSslCompression = false" in server.conf on the deployer.
* Default: true

conf_deploy_fetch_url = <URL>
* Specifies the location of the deployer from which members fetch the
  configuration bundle.
* This value must be set to a <URL> in order for the configuration bundle to
  be fetched.
* No default.
```

```
conf_deploy_fetch_mode = auto|replace|none
* Controls configuration bundle fetching behavior when the member starts up.
* When set to "replace", a member checks for a new configuration bundle on
  every startup.
* When set to "none", a member does not fetch the configuration bundle on
  startup.
* Regarding "auto":
  * If no configuration bundle has yet been fetched, "auto" is equivalent
    to "replace".
  * If the configuration bundle has already been fetched, "auto" is
    equivalent to "none".
* Default: replace

artifact_status_fields = <field> ...
* Give a comma separated fields to pick up values from status.csv and
  info.csv for each search artifact.
* These fields are shown in the CLI/REST endpoint splunk list
  shcluster-member-artifacts
* Default: user, app, label

encrypt_fields = <field> ...
* These are the fields that need to be re-encrypted when a Search Head
  Cluster does its own first time run on syncing all members with a new s
  plunk.secret key
* Give a comma separated fields as a triple elements
  <conf-file>:<stanza-prefix>:<key elem>
* For matching all stanzas from a conf, leave the stanza-prefix
  empty. For example: "server: :pass4SymmKey" matches all stanzas
  with pass4SymmKey as key in server.conf
* Default: storage/passwords, secret key for clustering/shclustering,
  server ssl config

enable_jobs_data_lite = <boolean>
*This is for memory reduction on the captain for Search head clustering,
  leads to lower memory in captain while slaves send the artifacts
  status.csv as a string.
* Default: true

shcluster_label = <string>
* This specifies the label of the search head cluster.

retry_autosummarize_or_data_model_acceleration_jobs = <boolean>
* Controls whether the captain tries a second time to delegate an
  auto-summarized or data model acceleration job, if the first attempt to
  delegate the job fails.
* Default: true

deployerPushThreads = <positive integer>|auto
* The maximum number of threads to use when performing a deployer bundle push
  to target members.
* If set to "auto", the deployer auto-tunes the number of threads it uses
  for a deployer bundle push. There will be one thread per target member.
* Default: 1


[replication_port://<port>]
############################################################################
# Configures the member to listen on a given TCP port for replicated data
# from another cluster member.
# At least one replication_port must be configured and not disabled.
############################################################################

disabled = <boolean>
* Set to true to disable this replication port stanza.
* Default: false

listenOnIPv6 = no|yes|only
* Toggle whether this listening port listens on IPv4, IPv6, or both.
* If not present, the setting in the [general] stanza is used.

acceptFrom = <network_acl> ...
* Lists a set of networks or addresses from which to accept connections.
* Separate multiple rules with commas or spaces.
* Each rule can be in one of the following formats:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A Classless Inter-Domain Routing (CIDR) block of addresses
       (examples: "10/8", "192.168.1/24", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard
       (examples: "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches.
  For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

[replication_port-ssl://<port>]
* This configuration is the same as the replication_port stanza, but uses SSL.

disabled = <boolean>
* Set to true to disable this replication port stanza.
* Default: false

listenOnIPv6 = no|yes|only
* Toggle whether this listening port listens on IPv4, IPv6, or both.
* Default: The setting in the [general] stanza

acceptFrom = <network_acl> ...
* This setting is the same as the setting in the [replication_port] stanza.

serverCert = <path>
* Full path to file containing private key and server certificate.
* The <path> must refer to a PEM format file.
* No default.

sslPassword = <password>
* Server certificate password, if any.
* No default.

password = <password>
* DEPRECATED; use 'sslPassword' instead.
* Used only if 'sslPassword' is not set.

rootCA = <path>
* DEPRECATED; use '[sslConfig]/sslRootCAPath' instead.
* Used only if '[sslConfig]/sslRootCAPath' is not set.
* Full path to the root CA (Certificate Authority) certificate store.
* The <path> must refer to a PEM format file containing one or more root CA
  certificates concatenated together.
* No default.

cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for the SSL connection.
* If not set, uses the default cipher string.
* provided by OpenSSL.  This is used to ensure that the server does not
  accept connections using weak encryption protocols.

supportSSLV3Only = <boolean>
* DEPRECATED.  SSLv2 is now always disabled.  The exact set of SSL versions
  allowed is now configurable via the "sslVersions" setting above.

useSSLCompression = <boolean>
* If true, enables SSL compression.
* Default: false

compressed = <boolean>
```

```
* DEPRECATED; use 'useSSLCompression' instead.
* Used only if 'useSSLCompression' is not set.

requireClientCert = <boolean>
* Requires that any peer that connects to replication port has a certificate
  that can be validated by certificate authority specified in rootCA.
* Default: false

allowSslRenegotiation = <boolean>
* In the SSL protocol, a client may request renegotiation of the connection
  settings from time to time.
* Setting this to false causes the server to reject all renegotiation
  attempts, breaking the connection.  This limits the amount of CPU a
  single TCP connection can use, but it can cause connectivity problems
  especially for long-lived connections.
* Default: true
```

KV 存储配置

```
[kvstore]

disabled = <boolean>
* Set to true to disable the KV Store process on the current server. To
  completely disable KV Store in a deployment with search head clustering or
  search head pooling, you must also disable KV Store on each individual
  server.
* Default: false

port = <port>
* Port to connect to the KV Store server.
* Default: 8191

replicaset = <replset>
* Replicaset name.
* Default: splunkrs

distributedLookupTimeout = <seconds>
* This setting has been removed, as it is no longer needed.

shutdownTimeout = <integer>
* Time, in seconds, to wait for a clean shutdown of the KV Store. If this time
  is reached after signaling for a shutdown, KV Store is forcibly terminated
* Default: 100

initAttempts = <integer>
* The maximum number of attempts to initialize the KV Store when starting
  splunkd.
* Default: 300

replication_host = <host>
* The host name to access the KV Store.
* This setting has no effect on a single Splunk instance.
* When using search head clustering, if the "replication_host" value is not
  set in the [kvstore] stanza, the host you specify for
  "mgmt_uri" in the [shclustering] stanza is used for KV
  Store connection strings and replication.
* In search head pooling, this host value is a requirement for using KV
  Store.
* This is the address on which a kvstore is available for accepting
  remotely.

verbose = <boolean>
* Set to true to enable verbose logging.
* Default: false

verboseLevel = <nonnegative integer>
```

```
* When verbose logging is enabled specify verbose level for logging
  from 0 to 5, where 5 is the most verbose.
* Default: 2

dbPath = <path>
* Path where KV Store data is stored.
* Changing this directory after initial startup does not move existing data.
  The contents of the directory should be manually moved to the new
  location.
* Default: $SPLUNK_DB/kvstore

storageEngine = mmapv1 | wiredTiger
* The storage engine that KV Store uses to manage its data.
* "mmapv1" will be deprecated for KV Store. Where possible, use the "wiredTiger" option,
  which is more performant.
* When you upgrade the Splunk platform, you get the option to upgrade the KV Store
  storage engine. If you choose not to, you can upgrade the engine later using the
  'splunk migrate kvstore-storage-engine' CLI command.
* Default: mmapv1

storageEngineMigration = <boolean>
* Whether or not you can migrate the KV Store storage engine on this instance.
* Migrating the storage engine means changing the engine from 'mmap' to
  the newer 'wiredTiger'.
* If you set this to "true", the instance lets you migrate the engine,
  depending on the following scenarios:
  * If this instance is standalone, you can migrate the engine during
    an upgrade by enabling this setting with a "true" value as part of
    the upgrade process and answering affirmatively when that process
    prompts you, or after an upgrade by using the
    'splunk migrate kvstore-storage-engine' CLI command.
  * If it is a part of a search head cluster, you can perform the migration using the
    '/services/shcluster/captain/kvmigrate/start' REST endpoint.
* If you set this to "false", you cannot migrate the storage engine.
* Default: false

oplogSize = <integer>
* The size of the replication operation log, in megabytes, for environments
  with search head clustering or search head pooling.
  In a standalone environment, 20% of this size is used.
* After the KV Store has created the oplog for the first time, changing this
  setting does NOT affect the size of the oplog. A full backup and restart
  of the KV Store is required.
* Do not change this setting without first consulting with Splunk Support.
* Default: 1000 (1GB)

replicationWriteTimeout = <integer>
* The time to wait, in seconds, for replication to complete while saving KV
  store operations. When the value is 0, the process never times out.
* Used for replication environments (search head clustering or search
  head pooling).
* Default: 1800 (30 minutes)

clientConnectionTimeout = <positive integer>
* The time, in seconds, to wait while attempting a connection to the KV Store
  before the attempt times out.
* Default: 10

clientSocketTimeout = <positive integer>
* The time, in seconds, to wait while attempting to send or receive on a
  socket before the attempt times out.
* Default: 300 (5 minutes)

clientConnectionPoolSize = <positive integer>
* The maximum number of active client connections to the KV Store.
* When the number of active connections exceeds this value, KV Store will
  reject new connection attempts until at least one active connection closes.
* Do not change this setting without first consulting with Splunk Support.
* Default: 500
```

```
caCertFile = <path>
* DEPRECATED; use '[sslConfig]/sslRootCAPath' instead.
* Used only if 'sslRootCAPath' is not set.
* Full path to a CA (Certificate Authority) certificate(s) PEM format file.
* If specified, it is used in KV Store SSL connections and
  authentication.
* Only used when Common Criteria is enabled (SPLUNK_COMMON_CRITERIA=1)
  or FIPS is enabled (i.e. SPLUNK_FIPS=1).
* NOTE: Splunk plans to submit Splunk Enterprise for Common Criteria
  evaluation. Splunk does not support using the product in Common
  Criteria mode until it has been certified by NIAP. See the "Securing
  Splunk Enterprise" manual for information on the status of Common
  Criteria certification.
* Default: $SPLUNK_HOME/etc/auth/cacert.pem

caCertPath = <filepath>
* DEPRECATED; use '[sslConfig]/sslRootCAPath' instead.

serverCert = <filepath>
* A certificate file signed by the signing authority specified above by
  caCertPath.
* In search head clustering or search head pooling, the certificates at
  different members must share the same 'subject'.
* The Distinguished Name (DN) found in the certificate's subject, must
  specify a non-empty value for at least one of the following attributes:
  Organization (O), the Organizational Unit (OU) or the
  Domain Component (DC).
* Only used when Common Criteria is enabled (SPLUNK_COMMON_CRITERIA=1)
  or FIPS is enabled (i.e. SPLUNK_FIPS=1).
* NOTE: Splunk plans to submit Splunk Enterprise for Common Criteria
  evaluation. Splunk does not support using the product in Common
  Criteria mode until it has been certified by NIAP. See the "Securing
  Splunk Enterprise" manual for information on the status of Common
  Criteria certification.

sslKeysPath = <filepath>
* DEPRECATED; use 'serverCert' instead.
* Used only when 'serverCert' is empty.

sslPassword = <password>
* Password of the private key in the file specified by 'serverCert' above.
* Must be specified if FIPS is enabled (i.e. SPLUNK_FIPS=1), otherwise, KV
  Store is not available.
* Only used when Common Criteria is enabled (SPLUNK_COMMON_CRITERIA=1)
  or FIPS is enabled (i.e. SPLUNK_FIPS=1).
* NOTE: Splunk plans to submit Splunk Enterprise for Common Criteria
  evaluation. Splunk does not support using the product in Common
  Criteria mode until it has been certified by NIAP. See the "Securing
  Splunk Enterprise" manual for information on the status of Common
  Criteria certification.
* No default.

sslKeysPassword = <password>
* DEPRECATED; use 'sslPassword' instead.
* Used only when 'sslPassword' is empty.

sslCRLPath = <filepath>
* Certificate Revocation List file.
* Only used when Common Criteria is enabled (SPLUNK_COMMON_CRITERIA=1)
  or FIPS is enabled (i.e. SPLUNK_FIPS=1).
* NOTE: Splunk plans to submit Splunk Enterprise for Common Criteria
  evaluation. Splunk does not support using the product in Common
  Criteria mode until it has been certified by NIAP. See the "Securing
  Splunk Enterprise" manual for information on the status of Common
  Criteria certification.
* Optional.
* Default: empty string (no Revocation List)
```

```
modificationsReadIntervalMillisec = <integer>
* How often, in milliseconds, to check for modifications to
  KV Store collections in order to replicate changes for distributed
  searches.
* Default: 1000 (1 second)

modificationsMaxReadSec = <integer>
* Maximum time interval KVStore can spend while checking for modifications
  before it produces collection dumps for distributed searches.
* Default: 30

initialSyncMaxFetcherRestarts = <positive integer>
* Specifies the maximum number of query restarts an oplog fetcher can perform
  before failing the ongoing Initial Sync attempt.
* Increasing this value might help in dynamic deployments with very large
  KV Store databases where Initial Sync might take a long time.
* NOTE: This setting should be changed only if you have been asked to set it by
  a Splunk Support engineer. It might increase KV Store cluster failover time.
* Default: 0


delayShutdownOnBackupRestoreInProgress = <boolean>
* Whether or not splunkd should delay a shutdown if a KV Store backup or restore
  operation is in progress.
* If set to "true", splunkd waits until either the running backup/restore operation
  completes, or 'splunkd_stop_timeout' seconds have elapsed since it received
  the shutdown request.
* NOTE: Setting this to "true" might delay splunkd shutdown for several minutes,
  depending on the amount of data that KV Store uses and the value of
  'splunkd_stop_timeout'.
* Default: false

percRAMForCache = <positive integer>
* The percentage of total system memory that KV store can use.
* Value can range from 5 to 50, inclusive.
* If less than 1 GB of system memory is present, only 256 MB of cache will be used.
* If you have less than 256 MB of system memory, you cannot use KVStore with wiredTiger.
* Changing this value can affect performance on KV store,
  Splunk Enterprise apps that use KV store, and KV store lookups.
  For more information, search the Splunk documentation for "KV store troubleshooting tools".
* If you are not using the WiredTiger storage engine, Splunk Enterprise ignores this setting.
* Default: 15
```

“索引器发现”配置

```
[indexer_discovery]
pass4SymmKey = <password>
* Security key shared between manager node and forwarders.
* If specified here, the same value must also be specified on all forwarders
  connecting to this manager.
* Unencrypted passwords must not begin with "$1$", as this is used by
  Splunk software to determine if the password is already encrypted.

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12

polling_rate = <integer>
* A value between 1 to 10. This value affects the forwarder polling
  frequency to achieve the desired polling rate. The number of connected
  forwarders is also taken into consideration.
* The formula used to determine effective polling interval,
  in Milliseconds, is:
  (number_of_forwarders/polling_rate + 30 seconds) * 1000
* Default: 10

indexerWeightByDiskCapacity = <boolean>
* If set to true, it instructs the forwarders to use weighted load
  balancing. In weighted load balancing, load balancing is based on the
  total disk capacity  of the target indexers, with the forwarder streaming
  more data to indexers with larger disks.
*  The traffic sent to each indexer is based on the ratio of:
   indexer_disk_capacity/total_disk_capacity_of_indexers_combined
* Default: false
```

级联复制配置

```
[cascading_replication]
pass4SymmKey = <password>
* Security key shared between indexers participating in cascading replication.
* The same value must be specified on all indexers participating in cascading replication.
* Unencrypted passwords must not begin with "$1$", as this is used by
  Splunk software to determine if the password is already encrypted.
* Empty passwords will not be accepted.
* Default: None

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12

max_replication_threads = <integer>
* Maximum threads used for replicating metadata and payload to search peers.
* If set to "auto", the peer auto-tunes the number of threads it uses for
  cascading replication.
    * If the peer has 3 or fewer CPUs, it allocates 2 threads.
    * If the peer has 4-7 CPUs, it allocates up to '# of CPUs - 2' threads.
    * If the peer has 8-15 CPUs, it allocates up to '# of CPUs - 3' threads.
    * If the peer has 16 or more CPUs, it allocates up to
      '# of CPUs - 4' threads.
* Maximum accepted value for this setting is 16.
* Default: auto

max_replication_jobs = <integer>
* Maximum jobs used for replicating metadata and payload to search peers.
* Default: 5

cascade_replication_plan_reap_interval = <interval>
* The interval at which the cascade replication plans are reaped.
* The interval can be specified as a string for minutes, seconds, hours, days.
  For example: 60s, 1m, 1h, 1d etc.
* Maximum accepted value is 5h
* Default: 1h

cascade_replication_plan_age = <interval>
* The age of the cascade replication plan when it gets reaped.
* The interval can be specified as a string for minutes, seconds, hours, or days.
  For example: 60s, 1m, 1h, 1d etc.
* Maximum accepted value is 24h
* Default: 8h
```

```
cascade_replication_plan_fanout = auto|<positive integer>
* Number of receivers that each sender replicates to at a time.
* If set to auto, Splunk automatically calculates an optimal fanout, based on
  the maximum number of replication threads, as determined by the
  'max_replication_threads' setting under [cascading_replication] in server.conf.
* If set to an integer, the integer must be no greater than the number of cluster
  peers, or, in the case of multisite clustering, no greater than the least number
  of peers on any one site.
* Default: auto

cascade_replication_plan_topology = size_balanced
* Topology used for building a cascading plan.
* When set to size_balanced, receivers are evenly distributed among senders.
  Senders on the same layer have same or similar number of receivers.
* Default: size_balanced

cascade_replication_plan_select_policy = random
* Policy for deciding which receivers the senders pick.
* When set to random, receivers are randomly picked.
* Default: random
```

节点级别验证

```
[node_auth]
signatureVersion = <comma-separated list>
* A list of authentication protocol versions that nodes of a Splunk
  deployment use to authenticate to other nodes.
* Each version of node authentication protocol implements an algorithm
  that specifies cryptographic parameters to generate authentication data.
* Nodes may only communicate using the same authentication protocol version.
* For example, if you set "signatureVersion = v1,v2" on one node, that
  node sends and accepts authentication data using versions "v1" and "v2"
  of the protocol, and you must also set "signatureVersion" to one of
  "v1", "v2", or "v1,v2" on other nodes for those nodes to mutually
  authenticate.
* For higher levels of security, set 'signatureVersion' to "v2".
* Default: v1,v2
```

缓存管理器配置

```
[cachemanager]
max_concurrent_downloads = <unsigned integer>
* The maximum number of buckets that can be downloaded simultaneously from
  external storage
* Default: 8

max_concurrent_uploads = <unsigned integer>
* The maximum number of buckets that can be uploaded simultaneously to external
  storage.
* Default: 8

eviction_policy = <string>
* The name of the eviction policy to use.
* Current options: lru, clock, random, lrlt, noevict, lruk
* Do not change the value from the default unless instructed by
  Splunk Support.
* Default: lru

enable_eviction_priorities = <boolean>
* When requesting buckets, search peers can give hints to the Cache Manager
  about the relative importance of buckets.
* When enabled, the Cache Manager takes the hints into consideration; when
  disabled, hints are ignored.
```

```
* Default: true

eviction_padding = <positive integer>
* Specifies the additional space, in megabytes, beyond 'minFreeSpace' that the
  cache manager uses as the threshold to start evicting data.
* If free space on a partition falls below
  ('minFreeSpace' + 'eviction_padding'), then the cache manager tries to evict
  data from remote storage enabled indexes.
* Default: 5120 (~5GB)

max_cache_size = <positive integer>
* Specifies the maximum space, in megabytes, per partition, that the cache can
  occupy on disk. If this value is exceeded, the cache manager starts
  evicting buckets.
* A value of 0 means this setting is not used to control cache eviction.
  Eviction will instead be based on the sum of 'minFreeSpace' and 'eviction_padding'
  settings, which limits the size of the partition that the cache resides on.
* Default: 0

persist_pending_upload_from_external = <bool>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies whether the information of the buckets that have been uploaded
  to remote storage can be serialized to disk or not.
* When set to true, this information is serialized to disk and
  the bucket is deemed to be on remote storage.
* Otherwise, the bucket is deemed to be not on remote storage and
  bucket is then uploaded to remote storage.
* Default: true

persistent_id_set_remove_min_sync_secs = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Cache manager persists the set of objects that are
  no longer pending upload to the remote storage based
  on when the previous set of changes were persisted to disk.
* This setting controls the interval from the last persist time that
  cache manager waits to persist the current set of changes to disk.
* Default: 5

enable_open_on_stale_object = <bool>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Specifies whether the buckets with stale files can be opened for search.
* When set to true, these buckets can be opened for search.
  Otherwise, searches are not allowed to open these buckets.
* Default: true

local_delete_summary_metadata_ttl = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* The local copy of a bucket needs to be synced with the copy in remote
  storage only when the bucket switches primaries.
* However in certain experimental modes of operation the delete journals
  in the remote storage could be mutated without an update to the local copy.
* Similarly, accelerated summaries in remote storage could be updated without
  an update to the local copy.
* This setting is meant for use in such modes. The Cache manager will make
  a best effort to invalidate the local delete journals and summary
  metadata files periodically.
* The period will be controlled by this ttl. A value of 0 will disable
  this behavior
* Default: 0

hotlist_recency_secs = <unsigned integer>
* When a bucket is older than this value, it becomes eligible for eviction.
  Buckets younger than this value are evicted only if there are no older
  buckets eligible for eviction.
* For the purpose of determining recency, the age of a bucket is calculated by
```

```
  subtracting the time of the bucket's most recent event data from the current time.
* For example, if the current time (expressed in UTC epoch time) is 1567891234 and
  the bucket is named db_1567809123_1557891234_10_8A21BEE9-60D4-436B-AA6D-21B68F631A8B,
  thus indicating that the time of the most recent event in the bucket is 1567809123,
  then the bucket's age, in seconds, is 82111 (~23 hours).
* Ensure that the cache is of sufficient size to handle the value of this setting.
  Otherwise, cache eviction cannot function optimally.  In other words, do not
  configure this setting to a size that will cause the cache to retain a quantity of
  buckets that approach or exceed the size of the cache based on this setting
  alone.
* Also, consider the amount of data you're ingesting and the needs of
  the types of searches you run. As a best practice, start with a fairly low value
  for this setting and adjust over time.
* For example, if the cache size is 100 GB and you typically add 10 GB of new buckets to
  the indexer in a 24 hour period, setting this to 172800 (48 hours) would mean that
  the cache manager will try to keep those 20 GB of recent buckets in the cache all the time.
* This setting can be overridden on a per-index basis in indexes.conf.
* Default: 86400 (24 hours)

hotlist_bloom_filter_recency_hours = <unsigned integer>
* When a bucket's non-journal and non-tsidx files (such as bloomfilter files)
  are older than this value, those files become eligible for eviction. Bloomfilter
  and associated files younger than this value are evicted only if there are
  no older files eligible for eviction.
* The recency of a bloomfilter file is based on its bucket's recency and is calculated
  in the same manner described for hotlist_recency_secs.
* This setting works in concert with hotlist_recency_secs which is designed to be
  configured for a shorter age. If hotlist_recency_secs leads to the eviction of a
  bucket, the bloomfilter and associated files will continue to remain in the cache
  until they reach the age configured by this setting. Thus, the bucket will remain
  in cache, but without its journal and tsidx files.
* This setting can be overridden on a per-index basis in indexes.conf.
* Default: 360 (15 days)

evict_on_stable = <boolean>
* When the source peer completes upload of a bucket to remote storage, it notifies the
  target peers so that they can evict any local copies of the bucket.
* When set to true, each target peer evicts its local copy, if any, upon such notification.
* When set to false, each target peer continues to store its local copy, if any, until its
  cache manager eventually evicts the bucket according to its cache eviction policy.
* Default: false

max_file_exists_retry_count = <unsigned integer>
* The cache manager retries its check on whether the file exists on
  remote storage when the check fails due to network errors until
  the retry count exceeds this setting.
* Default: 5

access_logging = <boolean>
* Enables/disables logging to the splunkd_access.log file for cachemanager requests.
* Default: false

cache_usage_collection_interval_minutes = <positive integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Interval at which cache usage information is reported to metrics.log.
* The cache usage logging reports cache usage, in bytes, broken down by
  cache type (bid, dma, ra, metrics), index and by time range. The time
  bins are defined by the setting 'cache_usage_collection_time_bins'.
* A value of 0 will disable this feature.
* Do not use a value less than 10 (minutes). Doing so can
  affect performance.
* Hot buckets are not managed by the cache manager and not reflected
  in the log messages.
* Default: 10

cache_usage_collection_time_bins = <positive integer list>
* Currently not supported. This setting is related to a feature that is
  still under development.
```

```
* This setting is used when 'cache_usage_collection_interval_minutes' is
  non-zero. See the 'cache_usage_collection_interval_minutes' section for
  more information.
* This comma-separated list of integers, representing days, are boundaries
  to the time ranges to which the cache usage is broken down and reported.
  There is an implicit bin, 0, that represents all data more recent than the
  first non-zero value. The highest value specified will represent all data
  older than that value.
* For example, using the default "1, 3, 7, 14, 30, 60, 90", cache usage will
  collect the size of buckets whose latest-time (endEpoch) into the following
  bins: 0 (future-1d), 1 (1d-3d), 3 (3d-7d), 7 (7d-15d), 15 (15d-30d),
  30 (30d-60d), 60 (60d-90d), 90 (90d and older).
* Default: 1, 3, 7, 15, 30, 60, 90

cache_usage_collection_per_index = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Enables the reporting cache usage information by index.
* This setting is used when 'cache_usage_collection_interval_minutes' is
  non-zero. See the 'cache_usage_collection_interval_minutes' section for
  more information.
* Default: false

batch_registration = <boolean>
* This setting enables/disables batch registration of buckets upon startup of indexer.
* If this setting is disabled, then when an indexer starts up, its cache manager registers
  each index bucket individually.  This can slow the startup process. If an indexer is
  experiencing long startup durations, enable this setting to register buckets in batches.
* The size of each batch of buckets is set with 'batch_registration_size'.
* Default: true

batch_registration_size = <unsigned integer>
* This setting specifies the size of each batch of buckets that are
  registered.
* This setting is used when 'batch_registration' is enabled.
* Use the default value unless instructed otherwise by Splunk Support.
* Default: 5000

cache_upload_backoff_sleep_secs = <unsigned_integer>
* This setting specifies the interval, in seconds, that the cache manager waits to
  retry an upload to the remote store after encountering a 4xx HTTP error.
* A value of 0 causes the cache manager to continue retrying the upload without
  performing a backoff.
* Default: 60

max_known_remote_absent_summaries = <unsigned_integer>
* This setting specifies the maximum number of frozen (absent) summaries that the
  cache manager maintains in a list.
* The list of frozen summaries helps the cache manager to avoid making calls to the
  remote store that could result in an HTTP 404 "not found" error. By increasing the
  limit, you decrease the likelihood of such calls, while potentially using more
  memory in the process.
* When this value is reached, the cache manager deletes the oldest frozen
  summaries from the list.
* Default: 200000 (200K)
```

Raft Statemachine 配置

```
[raft_statemachine]

disabled = <boolean>
* Set to true to disable the raft statemachine.
* This feature require search head clustering to be enabled.
* Any consensus replication among search heads use this feature.
* Default: true
```

```
replicate_search_peers = <boolean>
* Add/remove search-server request is applied on all members
  of a search head cluster, when this value to set to true.
* Require a healthy search head cluster with a captain.

[watchdog]
disabled = <boolean>
* Disables thread monitoring functionality.
* Any thread that has been blocked for more than 'responseTimeout' milliseconds
  is logged to $SPLUNK_HOME/var/log/watchdog/watchdog.log
* Default: false.

responseTimeout = <decimal>
* Maximum time, in seconds, that a thread can take to respond before the
  watchdog logs a 'thread blocked' incident.
* The minimum value for 'responseTimeout' is 0.1.
* If you set 'responseTimeout' to lower than 0.1, the setting uses the minimum
  value instead.
* Default: 8

actions = <actions_list>
* A comma-separated list of actions that execute sequentially when a blocked
  thread is encountered.
* Currently, the only available actions are 'pstacks', 'script' and 'bulletin'.
* 'pstacks' enables call stack generation for a blocked thread.
* Call stack generation gives the user immediate information on the potential
  bottleneck or deadlock.
* The watchdog saves each call stack in a separate file in
  $SPLUNK_HOME/var/log/watchdog with the following file name format:
  wd_stack_<pid>_<thread_name>_%Y_%m_%d_%H_%M_%S.%f_<uid>.log.
* 'script' executes specified script.
* 'bulletin' shows a message on the web interface.
* NOTE: This setting should be used only during troubleshooting, and if you have
  been asked to set it by a Splunk Support engineer. It might degrade
  performance by increasing CPU and disk usage.
* Default: empty list (no action executed)

actionsInterval = <decimal>
* The timeout, in seconds, that the watchdog uses while tracing a blocked
  thread. The watchdog executes each action every 'actionsInterval' seconds.
* The minimum value for 'actionsInterval' is 0.01.
* If you set 'actionsInterval' to lower than 0.01, the setting uses the minimum
  value instead.
* NOTE: Very small timeout may have impact performance by increasing CPU usage.
  Splunk may be also slowed down by frequently executed action.
* Default: 1

pstacksEndpoint = <boolean>
* Enables pstacks endpoint at /services/server/pstacks
* Endpoint allows ad-hoc pstacks generation of all running threads.
* This setting is ignored if 'watchdog' is not enabled.
* NOTE: This setting should be used only during troubleshooting and only if you
  have been explicitly asked to set it by a Splunk Support engineer.
* Default: true

usePreloadedPstacks = <boolean>
* Use preloaded wrapper to enable pstacks.
* NOTE: This setting should be changed only during troubleshooting and only if you
  have been explicitly asked to disable it by a Splunk Support engineer.
* Default: true

[watchdog:timeouts]
reaperThread = <decimal>
* Maximum time, in seconds, that a reaper thread can take to respond before the
  watchdog logs a 'thread blocked' incident.
* The minimum value for 'reaperThread' is 0.1.
* If you set 'reaperThread' to lower than 0.1, the setting uses the minimum
  value instead.
* This value is used only for threads dedicated to clean up dispatch directories
```

```
  and search artifacts.
* Default: 30

[watchdogaction:pstacks]
* Setting under this stanza are ignored if 'pstacks' is not enabled in the
  'actions' list.
* NOTE: Change these settings only during troubleshooting, and if you have
  been asked to set it by a Splunk Support engineer. It can affect performance
  by increasing CPU and disk usage.

dumpAllThreads = <boolean>
* Determines whether or not the watchdog saves stacks of all monitored threads
  when it encounters a blocked thread.
* If you set 'dumpAllThreads' to true, the watchdog generates call stacks for
  all threads, regardless of thread state.
* Default: true

stacksBufferSizeOrder = <unsigned integer>
* Controls the maximum number of call stacks an internal queue can hold.
* The watchdog uses the internal queue to temporarily store a call stack between
  the time the watchdog generates the call stack and the time it saves the call
  stack to a file.
* Increase the value of this setting if you see gaps in stack files due to high
  frequency of call stack generation. This might occur when, for example, you
  set 'stacksBufferSizeOrder' to a very low value, or if the number of threads
  is high.
* This number must be in the range 1 to 16.
* The watchdog uses this value to calculate the real size of the buffer, whose
  value must be a power of 2. For example, if 'stackBufferSizeOrder' is 4, the
  size of the buffer is 4 ^ 2, or 16.
* CAUTION: Setting to too low a value can cause dropped call stacks, and too
  high a value can cause increased memory consumption.
* Default: 14

maxStacksPerBlock = <unsigned integer>
* Maximum number of stacks that the watchdog can generate for a blocked thread.
* If you set 'dumpAllThreads' to true, the watchdog generates call stacks for
  all threads.
* If the blocked thread starts responding again, the count of stacks that the
  watchdog has generated resets to zero.
* If another thread blockage occurs, the watchdog begins generating stacks
  again, up to 'maxStacksPerBlock' stacks.
* When set to 0, an unlimited number of stacks will be generated.
  list.
* Default: 60

batchStacksThreshold = <unsigned integer>|auto
* The timeout, in milliseconds, after which the watchdog generates a new call stack file.
* This setting controls the batching up of call stacks when saving them to files, and can
  decrease the number of files the watchdog creates.
* When set to 0, batching is disabled.
* When set to 'auto', Splunk Enterprise determines the best frequency to create new
  call stack files.
* Default: auto

[watchdogaction:script]
* Setting under this stanza are ignored if 'script' is not enabled in the
  'actions' list.
* NOTE: Change these settings only during troubleshooting, and if you have
  been asked to set it by a Splunk Support engineer. It can affect performance
  by increasing CPU and disk usage.

path = <string>
* The path to the script to execute when the watchdog triggers the action.
* If you do not set 'path', the watchdog ignores the action.
* No default.

useShell = <boolean>
* If set to true, the script runs from the OS shell
```

```
  ("/bin/sh -c" on UNIX, "cmd.exe /c" on Windows)
* If set to false, the program will be run directly without attempting to
  expand shell metacharacters.
* Default: false

forceStop = <boolean>
* Whether or not the watchdog forcefully stops an active watchdog action script
  when a blocked thread starts to respond.
* Use this setting when, for example, the watchdog script has internal logic
  that controls its lifetime and must run without interruption.
* Default: false

forceStopOnShutdown = <boolean>
* If you set this setting to "true", the watchdog forcefully stops active
  watchdog scripts upon receipt of a shutdown request.
* Default: true
```

并行减少配置

```
[parallelreduce]
pass4SymmKey = <password>
* DEPRECATED. The setting is no longer required.

pass4SymmKey_minLength = <integer>
* The minimum length, in characters, that a 'pass4SymmKey' should be for a particular stanza.
* When you start the Splunk platform, if the 'pass4SymmKey' is shorter in length than
  what you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* If you use the CLI to modify 'pass4SymmKey' to a value that is shorter than what
  you specify with this setting, the platform warns you and advises that you
  change the pass4SymKey.
* Default: 12
@
@
@
@
@
@



# @@INCLUDED AS WITH_CLOUD ## Do not remove
scsTokenScriptPath = <string>
* The path to the platform extension that retrieves SCS access tokens from Hashicorp
  Vault.
* Default: /usr/local/bin/get_scs_tokens.sh

@
@[bucket_catalog_service]
@
@uri = <uri>
@* Points to the tenant bucket catalog service.
@* Required.
@* Currently, only HTTP is supported by the service.
@* Example: <scheme>://<hostname>:<port>/<tenantId>/<bucket_catalog_path>

@
@[cache_manager_service]
@
@uri = <uri>
@* Points to the cache manager service.
@* Required.
@
@ping_enabled = <boolean>
@* Currently not supported. This setting is related to a feature that is
@  still under development.
```

```
@* Enables "ping" keep-alive transactions to the Cache Manager Service.
@* Default: true
@
@timeout.ping = <unsigned integer>
@* Currently not supported. This setting is related to a feature that is
@  still under development.
@* Sets the ping timeout, in milliseconds, to use when interacting with the
@  Cache Manager Service.
@* Default: 30000
@
@timeout.connect = <unsigned integer>
@* Currently not supported. This setting is related to a feature that is
@  still under development.
@* Sets the connection timeout, in milliseconds, to use when connecting to the
@  Cache Manager Service.
@* Default: 5000
@
@timeout.read = <unsigned integer>
@* Currently not supported. This setting is related to a feature that is
@  still under development.
@* Sets the read timeout, in milliseconds, to use when interacting with the
@  Cache Manager Service.
@* Default: 60000
@
@timeout.write = <unsigned integer>
@* Currently not supported. This setting is related to a feature that is
@  still under development.
@* Sets the write timeout, in milliseconds, to use when interacting with the
@  Cache Manager Service.
@* Default: 60000
```

搜索项目配置的远程存储

```
[search_artifact_remote_storage]
disabled = <boolean>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Optional.
* Specifies whether or not search artifacts should be stored remotely.
* Splunkd does not clean up artifacts from remote storage. Set up cleanup
  separately with the remote storage provider.
* Default: true

path = <path on server>
* The path attribute points to the remote storage location where
  artifacts reside.
* The format for this attribute is: <scheme>://<remote-location-specifier>
  * The "scheme" identifies a supported external storage system type.
  * The "remote-location-specifier" is an external system-specific string for
     identifying a location inside the storage system.
* These external systems are supported:
  * Object stores that support AWS's S3 protocol. These use the scheme "s3".
    For example, "path=s3://mybucket/some/path".
* This is a required setting. If you do not set the path, the search artifact
  remote storage feature is disabled.
* No default.

upload_archive_format = [none|tar.lz4]
* Creates a tarball so that the entire artifact can be stored as a single object
  on the remote storage.
* This can reduce time to upload and artifact when the remote storage has a high
  seek penalty and the search artifact contains more than 100 individual files
* Default : none
```

S3 特定设置

```
remote.s3.header.<http-method-name>.<header-field-name> = <String>
* Optional.
* Enable server-specific features, such as reduced redundancy, encryption,
  and so on, by passing extra HTTP headers with the REST requests.
* The <http-method-name> can be any valid HTTP method. For example, GET,
  PUT, or ALL, for setting the header field for all HTTP methods.
* Example: remote.s3.header.PUT.x-amz-storage-class = REDUCED_REDUNDANCY

remote.s3.access_key = <String>
* Optional.
* Specifies the access key to use when authenticating with the remote storage
  system supporting the S3 API.
* If not specified, the indexer looks for these environment variables:
  AWS_ACCESS_KEY_ID or AWS_ACCESS_KEY (in that order).
* If the environment variables are not set and the indexer is running on EC2,
  the indexer attempts to use the access key from the IAM role.
* No default.

remote.s3.secret_key = <String>
* Optional.
* Specifies the secret key to use when authenticating with the remote storage
  system supporting the S3 API.
* If not specified, the indexer looks for these environment variables:
  AWS_SECRET_ACCESS_KEY or AWS_SECRET_KEY (in that order).
* If the environment variables are not set and the indexer is running on EC2,
  the indexer attempts to use the secret key from the IAM role.
* No default.

remote.s3.list_objects_version = v1|v2
* The AWS S3 Get Bucket (List Objects) Version to use.
* See AWS S3 documentation "GET Bucket (List Objects) Version 2" for details.
* Default: v1

remote.s3.signature_version = v2|v4
* Optional.
* The signature version to use when authenticating with the remote storage
  system supporting the S3 API.
* For 'sse-kms' server-side encryption scheme, you must use
  signature_version=v4.
* Default: v4

remote.s3.auth_region = <String>
* Optional
* The authentication region to use for signing requests when interacting with
  the remote storage system supporting the S3 API.
* Used with v4 signatures only.
* If unset and the endpoint (either automatically constructed or explicitly
  set with remote.s3.endpoint setting) uses an AWS URL
  (for example, https://s3-us-west-1.amazonaws.com), the instance attempts
  to extract the value from the endpoint URL (for example, "us-west-1").  See
  the description for the remote.s3.endpoint setting.
* If unset and an authentication region cannot be determined, the request
  will be signed with an empty region value.
* No default.

remote.s3.use_delimiter = true | false
* Optional.
* Specifies whether a delimiter (currently "guidSplunk") should be
  used to list the objects that are present on the remote storage.
* A delimiter groups objects that have the same delimiter value
  so that the listing process can be more efficient as it
  does not need to report similar objects.
* Default: true

remote.s3.supports_versioning = true | false
* Optional.
* Specifies whether the remote storage supports versioning.
* Versioning is a means of keeping multiple variants of an object
  in the same bucket on the remote storage.
* This setting determines how splunkd removes data from remote storage.
  If set to true, splunkd will delete all versions of objects at
  time of data removal. Otherwise, if set to false, splunkd will use a simple DELETE
  (See https://docs.aws.amazon.com/AmazonS3/latest/dev/DeletingObjectVersions.html).
* Default: true

remote.s3.endpoint = <URL>
* Optional.
* The URL of the remote storage system supporting the S3 API.
* The scheme, http or https, can be used to enable or disable SSL connectivity
  with the endpoint.
* If not specified and the indexer is running on EC2, the endpoint is
  constructed automatically based on the EC2 region of the instance where the
  indexer is running, as follows: https://s3-<region>.amazonaws.com
* Example: https://s3-us-west-2.amazonaws.com

remote.s3.multipart_download.part_size = <unsigned integer>
* Optional.
* Sets the download size of parts during a multipart download.
* This setting uses HTTP/1.1 Range Requests (RFC 7233) to improve throughput
  overall and for retransmission of failed transfers.
* A value of 0 disables downloading in multiple parts, i.e., files are always
  downloaded as a single (large) part.
* Do not change this value unless that value has been proven to improve
  throughput.
* Minimum value: 5242880 (5 MB)
* Default: 134217728 (128 MB)

remote.s3.multipart_upload.part_size = <unsigned integer>
* Optional.
* Sets the upload size of parts during a multipart upload.
* Minimum value: 5242880 (5 MB)
* Default: 134217728 (128 MB)

remote.s3.multipart_max_connections = <unsigned integer>
* Specifies the maximum number of HTTP connections to have in progress for
  either multipart download or upload.
* A value of 0 means unlimited.
* Default: 8

remote.s3.retry_policy = max_count
* Sets the retry policy to use for remote file operations.
* Optional.
* A retry policy specifies whether and how to retry file operations that fail
  for those failures that might be intermittent.
* Retry policies:
  + "max_count": Imposes a maximum number of times a file operation is
    retried upon intermittent failure both for individual parts of a multipart
    download or upload and for files as a whole.
* Default: max_count

remote.s3.max_count.max_retries_per_part = <unsigned integer>
* When the remote.s3.retry_policy setting is max_count, sets the maximum number
  of times a file operation is retried upon intermittent failure.
* Optional.
* The count is maintained separately for each file part in a multipart download
  or upload.
* Default: 9

remote.s3.max_count.max_retries_in_total = <unsigned integer>
* Optional.
* When the remote.s3.retry_policy setting is max_count, sets the maximum number
  of times a file operation is retried upon intermittent failure.
* The count is maintained for each file as a whole.
* Default: 128
```

```
remote.s3.timeout.connect = <unsigned integer>
* Optional
* Set the connection timeout, in milliseconds, to use when interacting with
  S3 for this volume.
* Default: 5000 (5 seconds)

remote.s3.timeout.read = <unsigned integer>
* Optional
* Set the read timeout, in milliseconds, to use when interacting with S3
  for this volume.
* Default: 60000 (60 seconds)

remote.s3.timeout.write = <unsigned integer>
* Optional
* Set the write timeout, in milliseconds, to use when interacting with S3
  for this volume.
* Default: 60000 (60 seconds)

remote.s3.sslVerifyServerCert = <boolean>
* Optional.
* If this is set to true, Splunk verifies certificate presented by S3
  server and checks that the common name/alternate name matches the
  ones specified in 'remote.s3.sslCommonNameToCheck'
  and 'remote.s3.sslAltNameToCheck'.
* Default: false

remote.s3.sslVersions = <versions_list>
* Optional.
* Comma-separated list of SSL versions to connect to 'remote.s3.endpoint'.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2".
* The special version "*" selects all supported versions.  The version "tls"
  selects all versions tls1.0 or newer.
* If a version is prefixed with "-" it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list
  but does nothing.
* When configured in FIPS mode, ssl3 is always disabled regardless
  of this configuration.
* Default: tls1.2

remote.s3.sslCommonNameToCheck = <commonName1>, <commonName2>, ..
* If this value is set, and 'remote.s3.sslVerifyServerCert' is set to
  true, splunkd checks the common name of the certificate presented by
  the remote server (specified in 'remote.s3.endpoint') against this
  list of common names.
* No default.

remote.s3.sslAltNameToCheck = <alternateName1>, <alternateName2>, ..
* If this value is set, and 'remote.s3.sslVerifyServerCert' is set to true,
  splunkd checks the alternate name(s) of the certificate presented by
  the remote server (specified in 'remote.s3.endpoint') against this list
  of subject alternate names.
* No default.

remote.s3.sslRootCAPath = <path>
* Optional
* Full path to the Certificate Authority (CA) certificate PEM format file
  containing one or more certificates concatenated together. S3 certificate
  is validated against the CAs present in this file.
* Default: [sslConfig/caCertFile] in the server.conf file

remote.s3.cipherSuite = <cipher suite string>
* Optional.
* If set, uses the specified cipher string for the SSL connection.
* If not set, uses the default cipher string.
* Must specify 'dhFile' to enable any Diffie-Hellman ciphers.
* Default: TLSv1+HIGH:TLSv1.2+HIGH:@STRENGTH

remote.s3.ecdhCurves = <comma separated list of ec curves>
* Optional
* ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of Client Hello.
* Splunk software only supports named curves specified
  by their SHORT names.
* The list of valid named curves by their short/long names can be obtained
  by executing this command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* e.g. ecdhCurves = prime256v1,secp384r1,secp521r1
* No default.

remote.s3.dhFile = <path>
* Optional
* PEM format Diffie-Hellman parameter file name.
* DH group size should be no less than 2048bits.
* This file is required in order to enable any Diffie-Hellman ciphers.
* No default.

remote.s3.encryption = sse-s3 | sse-kms | sse-c | none
* Optional
* Specifies the scheme to use for Server-side Encryption (SSE) for
  data-at-rest.
* sse-s3: Check http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingServerSideEncryption.html
* sse-kms: Check http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingKMSEncryption.html
* sse-c: Check http://docs.aws.amazon.com/AmazonS3/latest/dev/ServerSideEncryptionCustomerKeys.html
* none: no Server-side encryption enabled. Data is stored unencrypted on
  the remote storage.
* Default: none

remote.s3.encryption.sse-c.key_type = kms
* Optional
* Determines the mechanism Splunk uses to generate the key for sending
  over to S3 for SSE-C.
* The only valid value is 'kms', indicating AWS KMS service.
* One must specify required KMS settings: e.g. remote.s3.kms.key_id
  for Splunk to start up while using SSE-C.
* Default: kms

remote.s3.encryption.sse-c.key_refresh_interval = <unsigned integer>
* Optional
* Specifies the period, in seconds, at which a new key is generated and used
  for encrypting any new data being uploaded to S3.
* Default: 86400 (24 hours)

remote.s3.kms.key_id = <string>
* Required if remote.s3.encryption = sse-c | sse-kms
* Specifies the identifier for Customer Master Key (CMK) on KMS. It can be the
  unique key ID or the Amazon Resource Name (ARN) of the CMK or the alias
  name or ARN of an alias that refers to the CMK.
* Examples:
  Unique key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
  CMK ARN: arn:aws:kms:us-east-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
  Alias name: alias/ExampleAlias
  Alias ARN: arn:aws:kms:us-east-2:111122223333:alias/ExampleAlias
* No default.

remote.s3.kms.access_key = <string>
* Optional.
* Similar to 'remote.s3.access_key'.
* If not specified, KMS access uses 'remote.s3.access_key'.
* No default.

remote.s3.kms.secret_key = <string>
* Optional.
* Similar to 'remote.s3.secret_key'.
* If not specified, KMS access uses 'remote.s3.secret_key'.
* No default.

remote.s3.kms.auth_region = <string>
```

```
* Required if 'remote.s3.auth_region' is not set and Splunk can not
  automatically extract this information.
* Similar to 'remote.s3.auth_region'.
* If not specified, KMS access uses 'remote.s3.auth_region'.
* No default.

remote.s3.kms.max_concurrent_requests = <unsigned integer>
* Optional.
* Limits maximum concurrent requests to KMS from this Splunk instance.
* NOTE: Can severely affect search performance if set to very low value.
* Default: 10

remote.s3.kms.<ssl_settings> = <...>
* Optional.
* Check the descriptions of the SSL settings for remote.s3.<ssl_settings>
  above. e.g. remote.s3.sslVerifyServerCert.
* Valid ssl_settings are sslVerifyServerCert, sslVersions, sslRootCAPath,
  sslAltNameToCheck, sslCommonNameToCheck, cipherSuite, ecdhCurves and dhFile.
* All of these are optional and fall back to same defaults as
  the 'remote.s3.<ssl_settings>'.


[hot_bucket_streaming]

slices_list_executor_workers = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Number of workers that do list operations to discover slices during bucket recovery.
* Must be greater than 0.
* Default: 4

slices_download_executor_workers = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Number of workers that download slices during bucket recovery.
* Must be greater than 0.
* Default: 10

slices_build_executor_workers = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Maximum number of parallel bucket rebuilds during bucket recovery.
* Must be greater than 0.
* Default: 4

slices_removal_executor_workers = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Number of workers that remove slices after a bucket rolls to warm or is rebuilt.
* Must be greater than 0.
* Default: 2

slices_upload_executor_workers = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Number of workers that upload slices from hot buckets.
* Must be greater than 0.
* Default: 10

slices_upload_executor_capacity = <unsigned integer>
* Currently not supported. This setting is related to a feature that is
  still under development.
* Maximum number of queued slices to be uploaded. This affects the same thread
  pool that uses the 'slices_upload_executor_workers' setting.
* A value of 0 means that the queue capacity is unlimited.
* Default: 10

slices_upload_send_interval = <interval><unit>
* Currently not supported. This setting is related to a feature that is
```

```
  still under development.
* Periodic send interval, in seconds, for the slices to be uploaded.
* Examples: 10s, 1m
* Must not be greater than 300s or 5m
* Default: 5s

slices_upload_size_threshold = <unsigned integer>[B|KB|MB]
* Currently not supported. This setting is related to a feature that is
  still under development.
* Slice size threshold.
* When this threshold is reached, slice coalescing ends and the accumulated slice is uploaded.
* Must be a positive number followed by a size suffix.
  * Valid suffixes: b: bytes, kb: kilobytes, mb: megabytes
  * Suffixes are case insensitive.
* Must not be greater than 10MB
* Default: 1MB


[federated_search]
# This section contains settings for the data federation feature.

disabled = <boolean>
* Set this flag to 'false' to enable the data federation functionality on this instance.
* Default: true


[distributed_leases]
sslVerifyServerCert = <boolean>
* If set to true, the instance authenticates the remote server endpoint that
  it is attempting to connect to.
* Default: false

disabled = <boolean>
* Determines whether or not the distributed lease manager is enabled.
* Default: true
```

server.conf.example

```
#   Version 8.2.0
#
# This file contains an example server.conf.  Use this file to configure SSL
# and HTTP server options.
#
# To use one or more of these configurations, copy the configuration block
# into server.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# Allow users 8 hours before they time out
[general]
sessionTimeout=8h
pass4SymmKey = changeme

# Listen on IPv6 in addition to IPv4...
listenOnIPv6 = yes
# ...but make all outgoing TCP connections on IPv4 exclusively
connectUsingIpVersion = 4-only

# Turn on SSL:
```

```
[sslConfig]
enableSplunkdSSL = true
useClientSSLCompression = true
serverCert = $SPLUNK_HOME/etc/auth/server.pem
sslPassword = password
sslRootCAPath = $SPLUNK_HOME/etc/auth/cacert.pem
certCreateScript = genMyServerCert.sh

[proxyConfig]
http_proxy = http://proxy:80
https_proxy = http://proxy:80
proxy_rules = *
no_proxy = localhost, 127.0.0.1, ::1

######## SSO Example ########
# This example trusts all logins from the splunk web server and localhost
# Note that a proxy to the splunk web server should exist to enforce
# authentication
[general]
trustedIP = 127.0.0.1

####### Cascading Replication Example ######
[cascading_replication]
pass4SymmKey = someSecret
max_replication_threads = auto
max_replication_jobs = 5
cascade_replication_plan_reap_interval = 1h
cascade_replication_plan_age = 8h
cascade_replication_plan_fanout = auto
cascade_replication_plan_topology = size_balanced
cascade_replication_plan_select_policy = random


############################################################################
# Set this node to be a cluster manager.
############################################################################


[clustering]
mode = manager
replication_factor = 3
pass4SymmKey = someSecret
search_factor = 2


############################################################################
# Set this node to be a slave to cluster manager "SplunkManager01" on port
# 8089.
############################################################################

[clustering]
mode = slave
manager_uri = https://SplunkManager01.example.com:8089
pass4SymmKey = someSecret

############################################################################
# Set this node to be a searchhead to cluster manager "SplunkManager01" on
# port 8089.
############################################################################
[clustering]
mode = searchhead
manager_uri = https://SplunkManager01.example.com:8089
pass4SymmKey = someSecret

############################################################################
# Set this node to be a searchhead to multiple cluster managers -
# "SplunkManager01" with pass4SymmKey set to 'someSecret and "SplunkManager02"
# with no pass4SymmKey set here.
############################################################################
```

```
[clustering]
mode = searchhead
manager_uri = clustermanager:east, clustermanager:west

[clustermanager:east]
manager_uri = https://SplunkManager01.example.com:8089
pass4SymmKey=someSecret

[clustermanager:west]
manager_uri = https://SplunkManager02.example.com:8089

############################################################################
#     Configuration file change audit
#  To enable the feature, set 'disabled=false'.
#  Set 'mode=auto' to include all available features.
###############################################################################
[config_change_audit]
disabled = false
mode = auto

############################################################################
# Open an additional non-SSL HTTP REST port, bound to the localhost
# interface (and therefore not accessible from outside the machine)  Local
# REST clients like the CLI can use this to avoid SSL overhead when not
# sending data across the network.
############################################################################
[httpServerListener:127.0.0.1:8090]
ssl = false

[dfs]
disabled = false
dfc_ip_address = 192.0.2.0
port = 9000
extra_kryo_registered_classes = com.splunk.df.search.compute.objects._String,java.lang.Number
spark_master_host = 192.0.2.0
spark_master_webui_port = 8080
connection_timeout = 180
connection_retries = 5
```

serverclass.conf

以下为 serverclass.conf 的规范和示例文件。

serverclass.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attributes and values for defining server
# classes to which deployment clients can belong. These attributes and
# values specify what content a given server class member will receive from
# the deployment server.
#
# For examples, see serverclass.conf.example. You must reload the deployment
# server configuration ("splunk reload deploy-server"), or restart splunkd,
# for changes to this file to take effect.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles



#***************************************************************************
# Configure the server classes used by a deployment server instance.
#
# Server classes are essentially categories. They use filters to control
# what clients they apply to, contain a set of applications, and might define
# deployment server behavior for the management of those applications. The
# filters can be based on DNS name, IP address, build number of client
# machines, platform, and the clientName. If a target machine
# matches the filter, then the deployment server deploys the apps and configuration
# content that make up the server class to that machine.

# Property Inheritance
#
# Stanzas in serverclass.conf go from general to more specific, in the
# following order:
# [global] -> [serverClass:<name>] -> [serverClass:<scname>:app:<appname>]
#
# Some properties defined in the [global] stanza can be
# overridden by a more specific stanza as it applies to them. If a global
# setting can be overridden, the description says so.
```

第一层级：全局 ###########

```
# Global stanza that defines properties for all server classes.
[global]

disabled = <boolean>
* Toggles the deployment server off and on.
* Set to true to disable.
* Default: false

crossServerChecksum = <boolean>
* Ensures that each app has the same checksum across different deployment
  servers.
* Useful if you have multiple deployment servers behind a load-balancer.
* Default: false

excludeFromUpdate = <path>[,<path>]...
* Specifies paths to one or more top-level files or directories (and their
  contents) to exclude from being touched during app update.  Note that
  each comma-separated entry MUST be prefixed by "$app_root$/"
  to avoid warning messages.
* Can be overridden at the serverClass level.
* Can be overridden at the app level.
* Requires version 6.2.x or higher for both the deployment server and client.

repositoryLocation = <path>
* The repository of applications on the server machine.
* Can be overridden at the serverClass level.
* Default: $SPLUNK_HOME/etc/deployment-apps

targetRepositoryLocation = <path>
* The location on the deployment client where the deployment server
  should install the apps.
* If this value is unset, or set to empty, the repositoryLocation path is used.
* Can be overridden at the [serverClass:<name>] level.
* Useful only with complex (for example, tiered) deployment strategies.
* Default: $SPLUNK_HOME/etc/apps, the live
  configuration directory for a Splunk Enterprise instance.

tmpFolder = <path>
* Working folder used by deployment server.
* Default: $SPLUNK_HOME/var/run/tmp

continueMatching = <boolean>
* Controls how configuration is layered across classes and server-specific
  settings.
```

```
* If true, configuration lookups continue matching server classes, beyond
  the first match.
* If false, only the first match is used.
* Matching is done in the order in which server classes are defined.
* A serverClass can override this property and stop the matching.
* Can be overridden at the serverClass level.
* Default: true

endpoint = <URL template string>
* The endpoint from which content a deployment client can download content.
  The deployment client knows how to substitute values for variables in the
  URL.
* You can supply any custom URL here, as long as it uses the specified
  variables.
* Need not be specified unless you have a very specific need, for example:
  To acquire deployment application files from a third-party Web server, for
  extremely large environments.
* Can be overridden at the serverClass level.
* Default: $deploymentServerUri$/services/streams/deployment?name=$serverClassName$:$appName$

filterType = whitelist | blacklist
* The whitelist setting indicates a filtering strategy that pulls in a
  subset:
    * Items are considered to not match the stanza by default.
    * Items that match any whitelist entry, and do not match any blacklist
      entry, are considered to match the stanza.
* The blacklist setting indicates a filtering strategy that rules out a subset:
    * Items are considered to match the stanza by default.
    * Items that match any deny list entry are considered to not match the
      stanza, regardless of whitelist.
* More briefly:
    * whitelist: default no-match
    * blacklist: default match
* Can be overridden at the serverClass level, and the serverClass:app level.
* Default: whitelist

whitelist.<n> = <clientName> | <IP address> | <hostname> | <instanceId>
blacklist.<n> = <clientName> | <IP address> | <hostname> | <instanceId>
* 'n' is an unsigned integer. The sequence may start at any value and may be
  non-consecutive.
* The value of this attribute is matched against several things in order:
    * Any clientName specified by the client in its deploymentclient.conf file
    * The IP address of the connected client
    * The hostname of the connected client, as provided by reverse DNS lookup
    * The hostname of the client, as provided by the client
    * For Splunk Enterprise version > 6.4, the instanceId of the client. This is
      a GUID string, for example: 'ffe9fe01-a4fb-425e-9f63-56cc274d7f8b'.
* All of these can be used with wildcards.  The asterisk character (*) matches
  any sequence of characters. For example:
    * Match a network range: 10.1.1.*
    * Match a domain: *.splunk.com
* Can be overridden at the serverClass level, and the serverClass:app level.
* There are no whitelist or blacklist entries by default.
* These patterns are PCRE regular expressions, with the following aids for
  easier entry:
    * You can specify '.' to mean '\.'
    * You can specify '*' to mean '.*'
* Matches are always case-insensitive; you do not need to specify the '(?i)' prefix.

# Note: Overriding one type of filter (whitelist/blacklist) causes the other to
# be overridden (and hence not inherited from parent) too.

# Example with filterType=whitelist:
#     whitelist.0=*.splunk.com
#     blacklist.0=printer.splunk.com
#     blacklist.1=scanner.splunk.com
# This causes all hosts in splunk.com, except 'printer' and 'scanner', to
# match this server class.
# Example with filterType=blacklist:
#     blacklist.0=*
#     whitelist.0=*.web.splunk.com
#     whitelist.1=*.linux.splunk.com
# This causes only the 'web' and 'linux' hosts to match the server class.
# No other hosts match.

# You can also use deployment client machine types (hardware type of host
# machines) to match deployment clients.
# This filter is used only if match of a client could not be decided using
# the whitelist/blacklist filters. The value of each machine type is
# designated by the hardware platform itself; a few common ones are:
#   linux-x86_64, windows-intel, linux-i686, freebsd-i386,
    darwin-i386, sunos-sun4u.
# The method for finding it varies by platform; once a deployment client is
# connected to the deployment server, however, you can determine the value of a
# deployment client's machine type with this Splunk CLI command on the
# deployment server:
#       <code>./splunk list deploy-clients</code>
# The <code>utsname</code> values in the output are the respective deployment
# clients' machine types.

whitelist.from_pathname = <pathname>
blacklist.from_pathname = <pathname>
* As as alternative to a series of (whitelist|blacklist).<n>, the <clientName>,
  <IP address>, and <hostname> list can be imported from <pathname> that is
  either a plain text file or a comma-separated values (CSV) file.
* May be used in conjunction with (whitelist|blacklist).select_field,
  (whitelist|blacklist).where_field, and (whitelist|blacklist).where_equals.
* If used by itself, then <pathname> specifies a plain text file where one
  <clientName>, <IP address>, or <hostname> is given per line.
* If used in conjunction with select_field, where_field, and where_equals, then
  <pathname> specifies a CSV file.
* The <pathname> is relative to $SPLUNK_HOME.
* May also be used in conjunction with (whitelist|blacklist).<n> to specify
  additional values, but there is no direct relation between them.
* At most one from_pathname may be given per stanza.

whitelist.select_field = <field name> | <positive integer>
blacklist.select_field = <field name> | <positive integer>
* Specifies which field of the CSV file contains the <clientName>, <IP address>,
  or <hostname> either by field name or number.
* If <field name> is given, then the first line of the CSV file MUST be a
  header line containing the name(s) of all the field(s) and the <field name>
  must specify which field contains the value(s) to be used. Note that field
  names are case-sensitive.
* If <positive integer> is given, then it specifies the column number (starting
  at 1) of the field that contains the value(s) to be used. In this case, the
  first line of the CSV file MUST NOT be a header line.
* MUST be used in conjunction with (whitelist|blacklist).from_pathname.
* May be used in conjunction with (whitelist|blacklist).where_field and
  (whitelist|blacklist).where_equals.
* At most one select_field may be given per stanza.

whitelist.where_field = <field name> | <positive integer>
blacklist.where_field = <field name> | <positive integer>
* Specifies that only a subset of values are to be selected from
  (whitelist|blacklist).select_field.
* Specifies which field of the CSV file contains values to be compared against
  for equality with the (whitelist|blacklist).where_equals values.
* Like (whitelist|blacklist).select_field, the field may be specified by either
  name or number.  However, select_field and where_field MUST be specified the
  same way, either BOTH by name or BOTH by number.
* MUST be used in conjunction with (whitelist|blacklist).select_field and
  (whitelist|blacklist).where_equals.
* At most one where_field may be given per stanza.

whitelist.where_equals = <comma-separated list>
blacklist.where_equals = <comma-separated list>
```

```
* Specifies the value(s) that the value of (whitelist|blacklist).where_field
  must equal in order to be selected via (whitelist|blacklist).select_field.
* If more than one value is specified (separated by commas), then the value
  of (whitelist|blacklist).where_field may equal ANY ONE of the values.
* Each value is a PCRE regular expression with the following aids for easier
  entry:
    * You can specify '.' to mean '\.'
    * You can specify '*' to mean '.*'
* Matches are always case-insensitive; you do not need to specify the '(?i)'
  prefix.
* MUST be used in conjunction with (whitelist|blacklist).select_field and
  (whitelist|blacklist).where_field.
* At most one where_equals may be given per stanza.

machineTypesFilter = <comma-separated list>
* Not used unless specified.
* Boolean OR logic is employed: a match against any element in the list
  constitutes a match.
* This filter is used in boolean AND logic with whitelist/blacklist filters.
  Only clients which match the whitelist/blacklist AND which match this
  machineTypesFilter are included.
  * In other words, the match is an intersection of the matches for the
    whitelist/blacklist and the matches for MachineTypesFilter.
* This filter can be overridden at the serverClass and serverClass:app
  levels.
* These patterns are PCRE regular expressions, with the following aids for
  easier entry:
    * You can specify '.' to mean '\.'
    * You can specify '*' to mean '.*'
* Matches are always case-insensitive; you do not need to specify the '(?i)'
  prefix.
* Unset by default.

restartSplunkWeb = <boolean>
* If true, restarts SplunkWeb on the client when a member app or a directly
  configured app is updated.
* Can be overridden at the serverClass level and the serverClass:app level.
* Default: false

restartSplunkd = <boolean>
* If true, restarts splunkd on the client when a member app or a directly
  configured app is updated.
* Can be overridden at the serverClass level and the serverClass:app level.
* Default: false

issueReload = <boolean>
* If true, triggers a reload of internal processors at the client when a
  member app or a directly configured app is updated.
* If you don't want to immediately start using an app that is pushed to a
  client, you should set this to false.
* Default: false

restartIfNeeded = <boolean>
* This is only valid on forwarders that are newer than 6.4.
* If true and issueReload is also true, then when an updated app is deployed
  to the client, that client tries to reload that app. If it fails, it restarts.
* Default: false

stateOnClient = enabled | disabled | noop
* If set to "enabled", sets the application state to enabled on the client,
  regardless of state on the deployment server.
* If set to "disabled", set the application state to disabled on the client,
  regardless of state on the deployment server.
* If set to "noop", the state on the client is the same as on the
  deployment server.
* Can be overridden at the serverClass level and the serverClass:app level.
* Default: enabled

precompressBundles = <boolean>
```

```
* Controls whether the deployment server generates both .bundle and
  .bundle.gz files. The pre-compressed files offer improved performance as
  the deployment server is not required to compress the bundles on the fly
  for each client that it has to send the bundle to. However, this setting
  is only beneficial if there is no SSL compression in use and the client has
  support for HTTP compression.

* Deployment Server / server.conf
*   allowSslCompression = false
*   useHTTPServerCompression = true
*
* Deployment Client / server.conf
*   useHTTPClientCompression = true
*
* This option is inherited and available up to the serverclass level (not
  app). Apps belonging to server classes that required precompression are
  compressed, even if they belong to a server class which does not
  require precompression.
* Default: true
```

第二层级：服务器类

```
[serverClass:<serverClassName>]
* This stanza defines a server class. A server class is a collection of
  applications; an application may belong to multiple server classes.
* serverClassName is a unique name that is assigned to this server class.
* A server class can override all inheritable properties in the [global] stanza.
* A server class name may only contain: letters, numbers, spaces, underscores,
  dashes, dots, tildes, and the '@' symbol.  It is case-sensitive.

# NOTE:
# The keys listed below are all described in detail in the
# [global] section above. They can be used with serverClass stanza to
# override the global setting
continueMatching = <boolean>
endpoint = <URL template string>
excludeFromUpdate = <path>[,<path>]...
filterType = whitelist | blacklist
whitelist.<n> = <clientName> | <IP address> | <hostname>
blacklist.<n> = <clientName> | <IP address> | <hostname>
machineTypesFilter = <comma-separated list>
restartSplunkWeb = <boolean>
restartSplunkd = <boolean>
issueReload = <boolean>
restartIfNeeded = <boolean>
stateOnClient = enabled | disabled | noop
repositoryLocation = <path>
targetRepositoryLocation = <path>
```

第三层级：应用

```
[serverClass:<server class name>:app:<app name>]
* This stanza maps an application (which must already exist in
  repositoryLocation) to the specified server class.
* server class name is the server class to which this content should be
  added.
* app name can be '*' or the name of an app:
    * The value '*' refers to all content in the repositoryLocation, adding
      it to this serverClass. '*' stanza cannot be mixed with named stanzas
      for a given server class.
    * The name of an app explicitly adds the app to a server class.
      Typically apps are named by the folders that contain them.
    * An application name, if it is not the special '*' sign explained
      directly above, may only contain: letters, numbers, spaces, underscores,
      dashes, dots, tildes, and the '@' symbol.  It is case-sensitive.

appFile=<file name>
* In cases where the app name is different from the file or directory name,
  you can use this parameter to specify the file name. Supported formats
  are: directories, .tar files, and .tgz files.

# May override higher-level settings.
issueReload = <boolean>
restartIfNeeded = <boolean>
excludeFromUpdate = <path>[,<path>]...
```

serverclass.conf.example

```
#   Version 8.2.0
#
# Example 1
# Matches all clients and includes all apps in the server class

[global]
whitelist.0=*
# whitelist matches all clients.
[serverClass:AllApps]
[serverClass:AllApps:app:*]
# a server class that encapsulates all apps in the repositoryLocation


# Example 2
# Assign server classes based on dns names.

[global]

[serverClass:AppsForOps]
whitelist.0=*.ops.yourcompany.com
[serverClass:AppsForOps:app:unix]
[serverClass:AppsForOps:app:SplunkLightForwarder]

[serverClass:AppsForDesktops]
filterType=blacklist
# exclude everybody except the Windows desktop machines.
blacklist.0=*
whitelist.0=*.desktops.yourcompany.com
[serverClass:AppsForDesktops:app:SplunkDesktop]


# Example 3
# Deploy server class based on machine types

[global]

[serverClassAppsByMachineType]
# Ensure this server class is matched by all clients. It is IMPORTANT to
# have a general filter here, and a more specific filter at the app level.
# An app is matched _only_ if the server class it is contained in was
# successfully matched!
whitelist.0=*

[serverClass:AppsByMachineType:app:SplunkDesktop]
# Deploy this app only to Windows boxes.
machineTypesFilter=windows-*

[serverClass:AppsByMachineType:app:unix]
```

```
# Deploy this app only to unix boxes - 32/64 bit.
machineTypesFilter=linux-i686, linux-x86_64

# Example 4
# Specify app update exclusion list.

[global]

# The local/ subdirectory within every app will not be touched upon update.
excludeFromUpdate=$app_root$/local

[serverClass:MyApps]

[serverClass:MyApps:app:SpecialCaseApp]
# For the SpecialCaseApp, both the local/ and lookups/ subdirectories will
# not be touched upon update.
excludeFromUpdate=$app_root$/local,$app_root$/lookups

# Example 5
# Control client reloads/restarts

[global]
restartSplunkd=false
restartSplunkWeb=true

# For this serverclass, we attempt to only reload the configuration files
# within the app, if we fail to reload ie if there's a conf in the app that
# requires a restart, the admin must restart the instance themselves
[serverClass:ReloadOnly]
issueReload=true

# This is an example of a best effort reloadable serverClass. ie we try to
# reload the app, but if there are files that require a restart, only then
# do we restart
[serverClass:tryReloadThenRestart]
issueReload=true
restartIfNeeded=true

# Example 6a
# Use (allow list|deny list) text file import.
[serverClass:MyApps]
whitelist.from_pathname = etc/system/local/clients.txt

# Example 6b
# Use (allow list|deny list) CSV file import to read all values from the Client
# field (ignoring all other fields).
[serverClass:MyApps]
whitelist.select_field = Client
whitelist.from_pathname = etc/system/local/clients.csv

# Example 6c
# Use (sllow list|deny list) CSV file import to read some values from the Client
# field (ignoring all other fields) where ServerType is one of T1, T2, or
# starts with dc.
[serverClass:MyApps]
whitelist.select_field = Client
whitelist.from_pathname = etc/system/local/server_list.csv
whitelist.where_field = ServerType
whitelist.where_equals = T1, T2, dc*

# Example 6d
# Use (allow list|deny list) CSV file import to read some values from field 2
# (ignoring all other fields) where field 1 is one of T1, T2, or starts with
# dc.
[serverClass:MyApps]
whitelist.select_field = 2
whitelist.from_pathname = etc/system/local/server_list.csv
whitelist.where_field = 1
whitelist.where_equals = T1, T2, dc*
```

serverclass.seed.xml.conf

以下为 serverclass.seed.xml.conf 的规范和示例文件。

serverclass.seed.xml.conf.spec

```
#   Version 8.2.0

<!--
# This configuration is used by deploymentClient to seed a Splunk installation with applications, at startup time.
# This file should be located in the workingDir folder defined by deploymentclient.conf.
#
# An interesting fact - the DS -> DC communication on the wire also uses this XML format.
-->
<?xml version="1.0"?>
<deployment name="somename">

    <!--
    # The endpoint from which all apps can be downloaded.  This value can be overridden by serviceClass or ap declarations
below.
    # In addition, deploymentclient.conf can control how this property is used by deploymentClient - see
deploymentclient.conf.spec.
    -->
    <endpoint>$deploymentServerUri$/services/streams/deployment?name=$serviceClassName$:$appName$< /endpoint>

    <!--
    # The location on the deploymentClient where all applications will be installed. This value can be overridden by
serviceClass or
    # app declarations below.
    # In addition, deploymentclient.conf can control how this property is used by deploymentClient - see
deploymentclient.conf.spec.
    -->
    <repositoryLocation>$SPLUNK_HOME/etc/apps</repositoryLocation>

    <serviceClass name="serviceClassName">
        <!--
        # The order in which this service class is processed.
        -->
        <order>N</order>

        <!--
        # DeploymentClients can also override these values using serverRepositoryLocationPolicy and serverEndpointPolicy.
        -->
        <repositoryLocation>$SPLUNK_HOME/etc/myapps</repositoryLocation>
        <endpoint>splunk.com/spacecake/$serviceClassName$/$appName$.tgz</endpoint>

        <!--
        # Please See serverclass.conf.spec for how these properties are used.
        -->
        <continueMatching>true</continueMatching>
        <restartSplunkWeb>false</restartSplunkWeb>
        <restartSplunkd>false</restartSplunkd>
        <stateOnClient>enabled</stateOnClient>

        <app name="appName1">
            <!--
            # Applications can override the endpoint property.
            -->
            <endpoint>splunk.com/spacecake/$appName$</endpoint>
        </app>
        <app name="appName2"/>

    </serviceClass>
</deployment>
```

serverclass.seed.xml.conf.example

```
<?xml version="1.0" encoding="UTF-8"?>
<deployment name="root">
  <serverClass name="spacecake_apps">
    <app name="app_0">
      <repositoryLocation>$SPLUNK_HOME/etc/myapps</repositoryLocation>
      <!-- Download app_0 from the given location -->
      <endpoint>splunk.com/spacecake/apps/app_0.tgz</endpoint>
    </app>
    <app name="app_1">
      <repositoryLocation>$SPLUNK_HOME/etc/myapps</repositoryLocation>
      <!-- Download app_1 from the given location -->
      <endpoint>splunk.com/spacecake/apps/app_1.tgz</endpoint>
    </app>
  </serverClass>
  <serverClass name="foobar_apps">
    <!-- construct url for each location based on the scheme below and download each app -->
    <endpoint>foobar.com:5556/services/streams/deployment?name=$serverClassName$_$appName$.bundle< /endpoint>
    <app name="app_0"/>
    <app name="app_1"/>
    <app name="app_2"/>
  </serverClass>
  <serverClass name="local_apps">
    <endpoint>foo</endpoint>
    <app name="app_0">
      <!-- app present in local filesystem -->
      <endpoint>file:/home/johndoe/splunk/ds/service_class_2_app_0.bundle</endpoint>
    </app>
    <app name="app_1">
      <!-- app present in local filesystem -->
      <endpoint>file:/home/johndoe/splunk/ds/service_class_2_app_1.bundle</endpoint>
    </app>
    <app name="app_2">
      <!-- app present in local filesystem -->
      <endpoint>file:/home/johndoe/splunk/ds/service_class_2_app_2.bundle</endpoint>
    </app>
  </serverClass>
</deployment>
```

setup.xml.conf

以下为 setup.xml.conf 的规范和示例文件。

setup.xml.conf.spec

```
#   Version 8.2.0
#
#

<!--
This file describes the setup XML config and provides some examples.

Note that setup XML is not supported in Splunk Cloud or on deployments with search head clustering.

setup.xml provides a Setup Screen that you provide to users to specify configurations
for an app. The Setup Screen is available when the user first runs the app or from the
Splunk Manager: Splunk > Manager > Apps > Actions > Set up

Place setup.xml in the app's default directory:
  $SPLUNK_HOME/etc/apps/<app>/default/setup.xml

The basic unit of work is an <input>, which is targeted to a triplet
(endpoint, entity, field) and other information used to model the data. For example
data type, validation information, name/label, etc.

The (endpoint, entity, field attributes) identifies an object where the input is
read/written to, for example:

   endpoint=saved/searches
   entity=MySavedSearch
   field=cron_schedule

The endpoint/entities addressing is relative to the app being configured. Endpoint/entity can
be inherited from the outer blocks (see below how blocks work).

Inputs are grouped together within a <block> element:

(1) blocks provide an iteration concept when the referenced REST entity is a regex

(2) blocks allow you to group similar configuration items

(3) blocks can contain <text> elements to provide descriptive text to the user.

(4) blocks can be used to create a new entry rather than edit an already existing one, set the
    entity name to "_new". NOTE: make sure to add the required field 'name' as
    an input.

(5) blocks cannot be nested

See examples below.


Block Node attributes:

endpoint - The REST endpoint relative to "https://hostname:port/servicesNS/nobody/<app-name>/"
           of entities/object the block/input addresses. Generally, an endpoint maps to a
           Splunk configuration file.

entity   - An object at the endpoint. Generally, this maps to a stanza name in a configuration file.
          NOTE: entity names should be URI encoded.

mode     - (bulk | iter) used if the entity attribute is a regular expression:

           o iter - (default value for mode) Iterate over all matching entities and provide a
                    separate input field for each.
           o bulk - Update all matching entities with the same value.

           NOTE: splunk interprets '*' as the regex '.*'

eai_search - a search to filter entities returned by an endpoint. If not specified, the following
             search is used: eai:acl.app="" OR eai:acl.app="<current-app>" This search matches
             only objects defined in the app which the setup page is being used for.

             NOTE: if objects from another app are allowed to be configured, any changes to those
                   objects will be stored in the current app.

enabled   - (true | false | in-windows | in-unix) whether this block is enabled or not
            o true          - (default) this block is enabled
            o false         - block disabled
            o in-windows    - block is enabled only in windows installations
            o in-unix       - block is enabled in non-windows installations

Input Node Attributes:

endpoint          - see description above (inherited from block)

entity            - see description above (inherited from block)
```

```
field             - <string> the field which is being configured

old_style_disable - <bool> whether to perform entity disabling by submitting the edited entity with the following
                     field set: disabled=1. (This is only relevant for inputs whose field=disabled|enabled).
                     Defaults to false.

Nodes within an <input> element can display the name of the entity and field values within the entity
on the setup screen. Specify $name$ to display the name of the entity. Use $<field_name>$ to specify
the value of a specified field.

 -->

<setup>
  <block title="Basic stuff" endpoint="saved/searches/" entity="foobar">
    <text> some description here </text>

    <input field="is_scheduled">
      <label>Enable Schedule for $name$</label>  <!-- this will be rendered as "Enable Schedule for foobar" -->
      <type>bool</type>
    </input>

    <input field="cron_scheduled">
      <label>Cron Schedule</label>
      <type>text</type>
    </input>
    <input field="actions">
      <label>Select Active Actions</label>
      <type>list</type>
    </input>

    <!-- bulk update  -->
    <input entity="*" field="is_scheduled" mode="bulk">
      <label>Enable Schedule For All</label>
      <type>bool</type>
    </input>
  </block>

  <!-- iterative update in this block -->
  <block title="Configure search" endpoint="saved/eventtypes/" entity="*" mode="iter">
    <input field="search">
      <label>$name$ search</label>
      <type>string</type>
    </input>
    <input field="disabled">
      <label>disable $name$</label>
      <type>bool</type>
    </input>
  </block>

  <block title="Create a new eventtype" endpoint="saved/eventtypes/" entity="_new">
    <input target="name">
      <label>Name</label>
      <type>text</type>
    </input>
    <input target="search">
      <label>Search</label>
      <type>text</type>
    </input>
  </block>

  <block title="Add Account Info" endpoint="storage/passwords" entity="_new">
    <input field="name">
      <label>Username</label>
      <type>text</type>
    </input>
    <input field="password">
      <label>Password</label>
      <type>password</type>
    </input>
  </block>

  <!--  example config for "Windows setup" -->
  <block title="Collect local event logs" endpoint="admin/win-eventlogs/" eai_search="" >
    <text>
      Splunk for Windows needs at least your local event logs to demonstrate how to search them.
      You can always add more event logs after the initial setup in Splunk Manager.
    </text>

    <input entity="System" field="enabled" old_style_disable="true">
      <label>Enable $name$</label>
      <type>bool</type>
    </input>
    <input entity="Security" field="enabled"  old_style_disable="true">
      <label>Enable $name$</label>
      <type>bool</type>
    </input>
    <input entity="Application" field="enabled"  old_style_disable="true">
      <label>Enable $name$</label>
      <type>bool</type>
    </input>
  </block>

  <block title="Monitor Windows update logs" endpoint="data/inputs/monitor">
    <text>
      If you monitor the Windows update flat-file log, Splunk for Windows can show your patch history.
      You can also monitor other logs if you have them, such as IIS or DHCP logs, from Data Inputs in Splunk Manager
    </text>
    <input entity="%24WINDIR%5CWindowsUpdate.log" field="enabled">
      <label>Enable $name$</label>
      <type>bool</type>
    </input>
  </block>
</setup>
```

setup.xml.conf.example

No example

source-classifier.conf

以下为 source-classifier.conf 的规范和示例文件。

source-classifier.conf.spec

```
#   Version 8.2.0
#
# This file contains all possible options for configuring settings for the
# file classifier in source-classifier.conf.
#
# There is a source-classifier.conf in $SPLUNK_HOME/etc/system/default/ To
# set custom configurations, place a source-classifier.conf in
# $SPLUNK_HOME/etc/system/local/.  For examples, see
# source-classifier.conf.example. You must restart Splunk to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

```
ignored_model_keywords = <space-separated list of terms>
* Terms to ignore when generating a sourcetype model.
* To prevent sourcetype "bundles/learned/*-model.xml" files from containing
  sensitive terms (e.g. "bobslaptop") that occur very frequently in your
  data files, add those terms to ignored_model_keywords.

ignored_filename_keywords = <space-separated list of terms>
* Terms to ignore when comparing a new sourcename against a known
  sourcename, for the purpose of classifying a source.
```

source-classifier.conf.example

```
#   Version 8.2.0
#
# This file contains an example source-classifier.conf.  Use this file to
# configure classification
# of sources into sourcetypes.
#
# To use one or more of these configurations, copy the configuration block
# into source-classifier.conf in $SPLUNK_HOME/etc/system/local/. You must
# restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# terms to ignore when generating sourcetype model to prevent model from
# containing servernames
ignored_model_keywords = sun mon tue tues wed thurs fri sat sunday monday tuesday wednesday thursday friday saturday jan feb
mar apr may jun jul aug sep oct nov dec january february march april may june july august september october november december
2003 2004 2005 2006 2007 2008 2009 am pm ut utc gmt cet cest cetdst met mest metdst mez mesz eet eest eetdst wet west wetdst
msk msd ist jst kst hkt ast adt est edt cst cdt mst mdt pst pdt cast cadt east eadt wast wadt

# terms to ignore when comparing a sourcename against a known sourcename
ignored_filename_keywords = log logs com common event events little main message messages queue server splunk
```

sourcetypes.conf

以下为 sourcetypes.conf 的规范和示例文件。

sourcetypes.conf.spec

```
#  Version 8.2.0
#
# NOTE: sourcetypes.conf is a machine-generated file that stores the document
# models used by the file classifier for creating source types.

# Generally, you should not edit sourcetypes.conf, as most attributes are
# machine generated.  However, there are two attributes which you can change.
#
# There is a sourcetypes.conf in $SPLUNK_HOME/etc/system/default/ To set custom
# configurations, place a sourcetypes..conf in $SPLUNK_HOME/etc/system/local/.
# For examples, see sourcetypes.conf.example. You must restart Splunk to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.


_sourcetype = <value>
* Specifies the sourcetype for the model.
* Change this to change the model's sourcetype.
* Future sources that match the model will receive a sourcetype of this new
  name.

_source = <value>
* Specifies the source (filename) for the model.
```

sourcetypes.conf.example

```
#   Version 8.2.0
#
# This file contains an example sourcetypes.conf.  Use this file to configure
# sourcetype models.
#
# NOTE: sourcetypes.conf is a machine-generated file that stores the document
# models used by the file classifier for creating source types.
#
# Generally, you should not edit sourcetypes.conf, as most attributes are
# machine generated.  However, there are two attributes which you can change.
#
# To use one or more of these configurations, copy the configuration block into
# sourcetypes.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

#
# This is an example of a machine-generated sourcetype models for a fictitious
# sourcetype cadcamlog.
#

[/Users/bob/logs/bnf.x5_Thu_Dec_13_15:59:06_2007_171714722]
_source = /Users/bob/logs/bnf.x5
_sourcetype = cadcamlog
L----------- = 0.096899
L-t<_EQ> = 0.016473
```

splunk-launch.conf

以下为 splunk-launch.conf 的规范和示例文件。

splunk-launch.conf.spec

```
#   Version 8.2.0
# splunk-launch.conf contains values used at startup time, by the Splunk
# command and by Windows services.
#

# Note: this conf file is different from most splunk conf files.  There is
# only one in the whole system, located at
# $SPLUNK_HOME/etc/splunk-launch.conf; further, there are no stanzas,
# explicit or implicit.  Finally, any splunk-launch.conf files in
# etc/apps/... or etc/users/... will be ignored.


# Lines beginning with a # are comments and are ignored.

#*******
# Environment variables
#
# Primarily, this file simply sets environment variables to be used by
# Splunk programs.
#
# These environment variables are the same type of system environment
# variables that can be set, on unix, using:
#   bourne shells:
#       $ export ENV_VAR=value
#   c-shells:
#       % setenv ENV_VAR value
#
# or at a windows command prompt:
#   C:\> SET ENV_VAR=value
#*******

<environment_variable>=<value>

* Any desired environment variable can be set to any value.
  Whitespace is trimmed from around both the key and value.
* Environment variables set here will be available to all Splunk
  platform processes, barring operating system limitations.


#*******
# Specific Splunk environment settings
#
# These settings are primarily treated as environment variables, though some
# have some additional logic (defaulting).
#
# There is no need to explicitly set any of these values in typical
# environments.
#*******

SPLUNK_HOME = <string>
* The fully qualified path to the Splunk platform instance installation directory.
* The comment in the auto-generated splunk-launch.conf is informational, not
  a live setting, and does not need to be uncommented.
* If not set, the Splunk platform automatically determines the location of SPLUNK_HOME
  based on the location of the splunk CLI executable.
    * Specifically, the parent of the directory containing splunk or splunk.exe
* Must be set if Common Criteria mode is enabled.
* NOTE: Splunk plans to submit Splunk Enterprise for Common Criteria
  evaluation. Splunk does not support using the product in Common
  Criteria mode until it has been certified by the National Information Assurance
  Partnership (NIAP). See the "Securing Splunk Enterprise" manual for information on
  the status of Common Criteria certification.
* Default: not set

SPLUNK_DB = <string>
* The comment in the auto-generated splunk-launch.conf is informational, not
  a live setting, and does not need to be uncommented.
* The fully qualified path to the directory containing the index
  directories for the Splunk platform instance.
* Primarily used by paths expressed in indexes.conf
* The comment in the autogenerated splunk-launch.conf is informational, not
  a live setting, and does not need to be uncommented.
* If unset, the path becomes $SPLUNK_HOME/var/lib/splunk (unix) or
     %SPLUNK_HOME%\var\lib\splunk (windows>)
* Default: not set

SPLUNK_BINDIP = <ip address>
* The network IP address that splunkd and splunkweb should bind to, as
  opposed to binding to the default for the local operating system.
* If not set, the Splunk platform makes no specific request to the operating
  system when binding to ports or opening a listening socket. This means it
  effectively binds to '*', meaning an unspecified bind. Operating system
  behavior and configuration controls the exact result in this case.
* NOTE: When using this setting you must update 'mgmtHostPort' in web.conf to
  match. Otherwise, the command line and splunkweb cannot reach splunkd.
* For splunkd, this sets both the management port and the ports that receive
  from forwarders.
* This setting is useful for a host with multiple IP addresses, either to enable
  or restrict access. But using a firewall is typically a superior
  method of restriction.
* Overrides the Splunkweb-specific web.conf/[settings]/server.socket_host
  setting; use the latter when SplunkWeb behavior is the focus.
* Default: not set

SPLUNK_IGNORE_SELINUX = true
* If set to any value, splunkd launches despite the presence of SELinux.
* If not set, splunkd on Linux aborts startup if it detects
  it is running in an SELinux environment. This is because, in
  shipping/distribution-provided SELinux environments, splunkd is not
  permitted to work, and is not able to identify clearly why.
* This setting is useful in environments where you have configured SELinux
  to enable the Splunk platform instance to work.
* Default: not set

SPLUNK_OS_USER = <string> | <nonnegative integer>
* The OS user whose privileges splunkd adopts when running.
* Example: SPLUNK_OS_USER=fnietzsche. Splunkd starts with a root login.
  Immediately upon starting, splunkd abandons the root user's privileges,
  and acquires fnietzsche's privileges. User fnietzsche owns any files
  that splunkd creates (index data, logs, etc.) When fnietzsche starts splunkd
  the next time, the files are readable.
* When 'splunk enable boot-start -user <user>' is invoked, SPLUNK_OS_USER
  is set to <user> as a side effect.
* On UNIX, username or apposite numeric UID are both acceptable;
  on Windows, only usernames are acceptable.
* Default: not set

SPLUNK_FIPS = [0|1]
* Whether or not the Splunk platform instance operates in Federal Information
  Processing Standards (FIPS) mode, and uses the algorithms and restrictions
  that apply to the FIPS Publication 140-2 standard.
* If the machine on which the Splunk platform instance operates runs a kernel
  that operates in FIPS mode, this setting is "true" by default.
* Configure this setting to ensure that your Splunk platform instance operates
  fully within US federal guidelines set by the FIPS publication.
* NOTE: This setting is one-time only.
  * If you need for the instance to be fully FIPS-compliant, configure it to
    "true" before you start it for the first time. If you do not do this,
    the Splunk secret key that the instance generates on first-time startup
    might not meet FIPS guidance.
  * If you configure it to "true" and then start the Splunk platform instance,
    you cannot later configure it to "false". You must reinstall the software.
* Running the Splunk platform in FIPS mode can result in the platform operating
  more slowly than if you ran it in normal mode.
* Default: 0

#*******
# Service/server names.
#
```

```
# These settings are considered internal, and altering them is not
# supported.
#
# On Windows, they influence the expected name of the service;
# on UNIX they influence the reported name of the appropriate
# server or daemon process.
#
# On Linux distributions that run systemd, this is the name of the
# unit file for the service that Splunk Enterprise runs as.
# For example, if you set 'SPLUNK_SERVER_NAME' to 'splunk'
# then the corresponding unit file should be named 'splunk.service'.
#
# If you want to run multiple instances of Splunk as *services* on
# Windows, you must change the names for instances after the first.
# This is because the first instance takes up the service names
# 'Splunkd' and 'Splunkweb', and you may not have multiple services with
# same name.
#*******

SPLUNK_SERVER_NAME = <string>
* Names the splunkd server/service.
* Defaults to splunkd (UNIX), or Splunkd (Windows).

SPLUNK_WEB_NAME = <string>
* No longer used.

#*******
# File system check enable/disable
#
# CAUTION!
# USE OF THIS ADVANCED SETTING IS NOT SUPPORTED. IRREVOCABLE DATA LOSS
# CAN OCCUR. YOU USE THE SETTING SOLELY AT YOUR OWN RISK.
# CAUTION!
#
# When the Splunk software encounters a file system that it does not recognize,
# it runs a utility called 'locktest' to confirm that it can write to the
# file system correctly. If 'locktest' fails for any reason, splunkd
# cannot start.
#
# The following setting lets you temporarily bypass the 'locktest'
# check (for example, when a software vendor introduces a new default
# file system on a popular operating system). When it is active, splunkd
# starts regardless of its ability to interact with the file system.
#
# Use this setting if and only if:
#
# * You are a skilled Splunk administrator and know what you are doing.
# * You use Splunk software in a development environment.
# * You want to recover from a situation where the default
#   filesystem has changed outside your control, such as
#   during an operating system upgrade.
# * You want to recover from a situation where a Splunk bug
#   has invalidated a previously functional file system after an upgrade.
# * You want to evaluate the performance of a file system for which
#   Splunk has not yet offered support.
# * You have been given explicit instruction from Splunk Support to use
#   the setting to solve a problem where the Splunk software does not start
#   because of a failed file system check.
# * You understand and accept all the risks of using the setting,
#   up to and including LOSING ALL YOUR DATA WITH NO CHANCE OF RECOVERY
#   while the setting is active.
#
# If none of these scenarios applies to you, then DO NOT USE THE SETTING.
#
# CAUTION!
# USE OF THIS ADVANCED SETTING IS NOT SUPPORTED. IRREVOCABLE DATA LOSS
# CAN OCCUR. YOU USE THE SETTING SOLELY AT YOUR OWN RISK.
# CAUTION!
#*******
```

```
OPTIMISTIC_ABOUT_FILE_LOCKING = [0|1]
* Whether or not Splunk software skips the file system lock check on
  unrecognized file systems.
* CAUTION: USE THIS SETTING AT YOUR OWN RISK. YOU CAN LOSE ANY DATA
  THAT HAS BEEN INDEXED WHILE THE SETTING IS ACTIVE.
* When set to 1, Splunk software skips the file system check, and
  splunkd starts whether or not it can recognize the file system.
* Defaults to 0 (Run the file system check.)
```

splunk-launch.conf.example

```
No example
```

tags.conf

以下为 tags.conf 的规范和示例文件。

tags.conf.spec

```
# Version 8.2.0
#
# This file contains possible attribute/value pairs for configuring tags. Set
# any number of tags for indexed or extracted fields.
#
# There is no tags.conf in $SPLUNK_HOME/etc/system/default/. To set custom
# configurations, place a tags.conf in $SPLUNK_HOME/etc/system/local/. For
# examples, see tags.conf.example. You must restart Splunk software to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[<fieldname>=<value>]

```
* The field name and value to which the tags in the stanza
  apply. For example, host=localhost.
* A tags.conf file can contain multiple stanzas. It is recommended that the
  value be URL encoded to avoid configuration file parsing errors, especially
  if the field value contains the following characters: \n, =, []
* Each stanza can refer to only one field/value pair.

<tag1> = <enabled|disabled>
<tag2> = <enabled|disabled>
<tag3> = <enabled|disabled>
* Enable or disable each <tag> for this specific field/value pair.
* While you can have multiple tags in a stanza (meaning that multiple tags are
  assigned to the same field/value combination), only one tag is allowed per
  stanza line. In other words, you can't have a list of tags on one line of the
  stanza.
* CAUTION: Do not put the <tag> value in quotes. For example,
  use foo=enabled, not "foo"=enabled.
```

tags.conf.example

```
#   Version 8.2.0
#
# This is an example tags.conf.  Use this file to define tags for fields.
#
# To use one or more of these configurations, copy the configuration block into
# tags.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# This first example presents a situation where the field is "host" and the
# three hostnames for which tags are being defined are "hostswitch,"
# "emailbox," and "devmachine." Each hostname has two tags applied to it, one
# per line. Note also that the "building1" tag has been applied to two hostname
# values (emailbox and devmachine).

[host=hostswitch]
pci = enabled
cardholder-dest = enabled

[host=emailbox]
email = enabled
building1 = enabled

[host=devmachine]
development = enabled
building1 = enabled

[src_ip=192.168.1.1]
firewall = enabled

[seekPtr=1cb58000]
EOF = enabled
NOT_EOF = disabled
```

telemetry.conf

以下为 telemetry.conf 的规范和示例文件。

Telemetry.conf. 规范

```
# This file contains possible attributes and values for configuring global
# telemetry settings. Please note that enabling these settings would enable
# apps to collect telemetry data about app usage and other properties.
#
# There is no global, default telemetry.conf. Instead, a telemetry.conf may
# exist in each app in Splunk Enterprise.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top
#    of the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, attributes are combined. In the case of
#    multiple definitions of the same attribute, the last definition in the
#    file wins.
#  * If an attribute is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.
```

[general]

```
optInVersion = <number>
* An integer that identifies the set of telemetry data to be collected
* Incremented upon installation if the data set collected by Splunk has changed
* This field was introduced for version 2 of the telemetry data set. So,
  when this field is missing, version 1 is assumed.
* Should not be changed manually

optInVersionAcknowledged = <number>
* The latest optInVersion acknowledged by a user on this deployment
* While this value is less than the current optInVersion, a prompt for
  data collection opt-in will be shown to users with the
  edit_telemetry_settings capability at login
* Once a user confirms interaction with this login - regardless of
  opt-in choice - this number will be set to the value of optInVersion
* This gets set regardless of whether the user opts in using the opt-in
  dialog or the Settings > Instrumentation page
* If manually decreased or deleted, then a user that previously acknowledged
  the opt-in dialog will not be shown the dialog the next time they log in
  unless the related settings (dismissedInstrumentationOptInVersion and
  hideInstrumentationOptInModal) in their user-prefs.conf are also changed.
* Unset by default

sendLicenseUsage = true|false
* Send the licensing usage information of splunk/app to the app owner
* Defaults to true

sendAnonymizedUsage = true|false
* Send the anonymized usage information about various categories like
  infrastructure, utilization etc of splunk/app to Splunk, Inc
* Defaults to true

sendSupportUsage = true|false
* Send the support usage information about various categories like
  infrastructure, utilization etc of splunk/app to Splunk, Inc
* Defaults to false

sendAnonymizedWebAnalytics = true|false
* Send the anonymized usage information about user interaction with
  splunk performed through the web UI
* Defaults to true

precheckSendLicenseUsage = true|false
* Default value for sending license usage in opt in modal
* Defaults to true

precheckSendAnonymizedUsage = true|false
* Default value for sending anonymized usage in opt in modal
* Defaults to true

precheckSendSupportUsage = true|false
* Default value for sending support usage in opt in modal
* Defaults to true

showOptInModal = true|false
* DEPRECATED - see optInVersion and optInVersionAcknowledged settings
* Shows the opt in modal. DO NOT SET! When a user opts in, it will
  automatically be set to false to not show the modal again.
* Defaults to true

deploymentID = <string>
* A uuid used to correlate telemetry data for a single splunk
  deployment over time. The value is generated the first time
  a user opts in to sharing telemetry data.

deprecatedConfig = true|false
* Setting to determine whether the splunk deployment is following
  best practices for the platform as well as the app
```

```
* Defaults to false

retryTransaction = <string>
* Setting that is created if the telemetry conf updates cannot be delivered to
  the cluster master for the splunk_instrumentation app.
* Defaults to an empty string

swaEndpoint = <string>
* The URL to which swajs will forward UI analytics events
* If blank, swajs sends events to the Splunk MINT CDS endpoint.
* Blank by default

telemetrySalt = <string>
* A salt used to hash certain fields before transmission
* Autogenerated as a random UUID when splunk starts

scheduledHour = <number>
* Time of day, on a 24 hour clock, that the scripted input responsible for collecting telemetry data starts.
* The script begins at the top of the hour and completes, including running searches on the primary instance in your
deployment, after a few minutes.
* Defaults to 3

scheduledDay = <string>
* Number representing the weekday on which telemetry data collection is executed
* 0 represents Monday
* Defaults to every day (*)

reportStartDate = <string>
* Start date for the next telemetry data collection
* Uses format YYYY-MM-DD
* Defaults to empty string

bufferFlushTimeout = <number>
* Timeout for buffer flush, number in seconds
* Defaults to 600s

onCloudInstance = true|false
* Whether the instance is on cloud or on prem
* Defaults to false
```

telemetry.conf.示例

```
# This file contains possible attributes and values for configuring global
# telemetry settings. Please note that enabling these settings would enable
# apps to collect telemetry data about app usage and other properties.
#
# There is no global, default telemetry.conf. Instead, a telemetry.conf may
# exist in each app in Splunk Enterprise.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[general]
sendLicenseUsage = false
sendAnonymizedUsage = false
sendAnonymizedWebAnalytics = false
precheckSendAnonymizedUsage = false
precheckSendLicenseUsage = true
showOptInModal = true
deprecatedConfig = false
scheduledHour = 16
reportStartDate = 2017-10-27
scheduledDay = 4
bufferFlushTimeout = 600
onCloudInstance = false
```

times.conf

以下为 times.conf 的规范和示例文件。

times.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains possible attribute/value pairs for creating custom time
# ranges.
#
# Each stanza controls different search commands settings.
#
# There is a times.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name times.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see times.conf.example.
# You must restart the Splunk instance to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top
#     of the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
```

[<timerange_name>]

```
* The token to use when accessing time ranges through the API or command line.
* A times.conf file can contain multiple stanzas.

label = <string>
* The textual description used by the UI to reference this time range.
* Required

header_label = <string>
* The textual description used by the UI when displaying search results in
  this time range.
* Optional.
* Default: The <timerange_name>
```

```
earliest_time = <string>
* The string that represents the time of the earliest event to return,
  inclusive.
* The time can be expressed with a relative time identifier or in UNIX time.
* Optional.
* No default (No earliest time bound is used)

latest_time = <string>
* The string that represents the time of the earliest event to return,
  inclusive.
* The time can be expressed with a relative time identifier or in UNIX
  time.
* Optional.
* NOTE: events that occur in the future (relative to the server timezone)
        might be returned.
* No default (No latest time bound is used)

order = <integer>
* The key on which all custom time ranges are sorted, ascending.
* The default time range selector in the UI will merge and sort all time
  ranges according to the 'order' key, and then alphabetically.
* Optional.
* Default: 0

disabled = <integer>
* Specifies if the menu item is shown. Set to 1 to hide menu item.
* Optional.
* Default: 0

sub_menu = <submenu name>
* REMOVED.  This setting is no longer used.

is_sub_menu = <boolean>
* REMOVED.  This setting is no longer used.
```

[settings]

```
* List of flags that modify the panels that are displayed in the time range picker.

show_advanced = <boolean>
* Specifies if the 'Advanced' panel should be displayed in the time range picker.
* Optional.
* Default: true

show_date_range = <boolean>
* Specifies if the 'Date Range' panel should be displayed in the time range picker.
* Optional.
* Default: true

show_datetime_range = <boolean>
* Specifies if the 'Date & Time Range' panel should be displayed in the time range picker.
* Optional.
* Default: true

show_presets = <boolean>
* Specifies if the 'Presets' panel should be displayed in the time range picker.
* Optional.
* Default: true

show_realtime = <boolean>
* Specifies if the 'Realtime' panel should be displayed in the time range picker.
* Optional.
* Default: true

show_relative = <boolean>
* Specifies if the 'Relative' panel should be displayed in the time range picker.
* Optional.
* Default: true
```

times.conf.example

```
#   Version 8.2.0
#
# This is an example times.conf.  Use this file to create custom time ranges
# that can be used while interacting with the search system.
#
# To use one or more of these configurations, copy the configuration block
# into times.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# Note: These are examples.  Replace the values with your own customizations.


# The stanza name is an alphanumeric string (no spaces) that uniquely
# identifies a time range.
[this_business_week]

# Define the label used in the time range control
label = This business week

# Define the label to be used in display headers. If omitted the 'label' key
# will be used with the first letter lowercased.
header_label = during this business week
earliest_time = +1d@w1
latest_time = +6d@w6

# Define the ordering sequence of this time range.  All time ranges are
# sorted numerically, ascending. If the time range is in a sub menu and not
# in the main menu, this will determine the position within the sub menu.
order = 110


# a time range that only has a bound on the earliest time
#
[last_3_hours]
label = Last 3 hours
header_label = in the last 3 hours
earliest_time = -3h
order = 30


# Use epoch time notation to define the time bounds for the Fall Semester
# 2013, where earliest_time is 9/4/13 00:00:00 and latest_time is 12/13/13
# 00:00:00.
#
[Fall_2013]
label = Fall Semester 2013
earliest_time = 1378278000
latest_time = 1386921600


# two time ranges that should appear in a sub menu instead of in the main
# menu.  the order values here determine relative ordering within the
# submenu.
#
[yesterday]
label = Yesterday
earliest_time = -1d@d
latest_time = @d
```

```
order = 10
sub_menu = Other options

[day_before_yesterday]
label = Day before yesterday
header_label = from the day before yesterday
earliest_time = -2d@d
latest_time = -1d@d
order = 20
sub_menu = Other options


#
# The sub menu item that should contain the previous two time ranges.  The
# order key here determines the submenu opener's placement within the main
# menu.
#
[other]
label = Other options
order = 202

#
# Disable the realtime panel in the time range picker
[settings]
show_realtime = false
```

transactiontypes.conf

以下为 transactiontypes.conf 的规范和示例文件。

transactiontypes.conf.spec

```
#   Version 8.2.0
#
# This file contains all possible attributes and value pairs for a
# transactiontypes.conf file.  Use this file to configure transaction searches
# and their properties.
#
# There is a transactiontypes.conf in $SPLUNK_HOME/etc/system/default/.  To set
# custom configurations, place a transactiontypes.conf in
# $SPLUNK_HOME/etc/system/local/. You must restart Splunk to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each conf file should have at most one default stanza. If there are
#     multiple default stanzas, attributes are combined. In the case of
#     multiple definitions of the same attribute, the last definition in the
#     file wins.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.


[<TRANSACTIONTYPE>]
* Create any number of transaction types, each represented by a stanza name and
```

```
  any number of the following attribute/value pairs.
* Use the stanza name, [<TRANSACTIONTYPE>], to search for the transaction in
  Splunk Web.
* If you do not specify a value for an attribute, the Splunk platform
  uses the default value.

maxspan = [<integer> s|m|h|d|-1]
* Set the maximum time span for the transaction.
* Can be in seconds, minutes, hours, or days, or -1 for an unlimited timespan.
  * Example:  5s, 6m, 12h or 30d.
* Default: maxspan=-1

maxpause = [<integer> s|m|h|d|-1]
* Set the maximum pause between the events in a transaction.
* Can be in seconds, minutes, hours, or days, or -1 for an unlimited pause.
  * Example:  5s, 6m, 12h or 30d.
* Default: maxpause=-1

maxevents = <integer>
* The maximum number of events in a transaction. This constraint is disabled if
  the value is a negative integer.
* Default: maxevents=1000

fields = <comma-separated list of fields>
* If set, each event must have the same field(s) to be considered part of the
  same transaction.
  * Example: fields=host,cookie
* Default: ""

connected =< boolean>
* Relevant only if 'fields' (see above) is not empty. Controls whether an event
  that is not inconsistent and not consistent with the fields of a transaction
  opens a new transaction (connected=true) or is added to the transaction.
* An event can be not inconsistent and not field-consistent if it contains
  fields required by the transaction but none of these fields has been
  instantiated in the transaction (by a previous event addition).
* Default: true

startswith=<transam-filter-string>
* A search or eval filtering expression which, if satisfied by an event, marks
  the beginning of a new transaction.
* Examples:
  * startswith="login"
  * startswith=(username=foobar)
  * startswith=eval(speed_field < max_speed_field)
  * startswith=eval(speed_field < max_speed_field/12)
* Default: empty string

endswith=<transam-filter-string>
* A search or eval filtering expression which, if satisfied by an event, marks
  the end of a transaction.
* Examples:
  * endswith="logout"
  * endswith=(username=foobar)
  * endswith=eval(speed_field > max_speed_field)
  * endswith=eval(speed_field > max_speed_field/12)
* Default: empty string

* For 'startswith' and 'endswith' <transam-filter-string> has the following syntax:
* syntax:   "<search-expression>" | (<quoted-search-expression>) | eval(<eval-expression>)
* Where:
  * <search-expression>       is a valid search expression that does not contain quotes
  * <quoted-search-expression> is a valid search expression that contains quotes
  * <eval-expression>         is a valid eval expression that evaluates to a boolean.
                               For example, startswith=eval(foo<bar*2) matches events
                               where "foo" is less than 2 x "bar".
* Examples:
  * "<search expression>":       startswith="foo bar"
  * <quoted-search-expression>:  startswith=(name="mildred")
  * <quoted-search-expression>:  startswith=("search literal")
  * eval(<eval-expression>):     startswith=eval(distance/time < max_speed)

### memory constraint options ###

maxopentxn=<int>
* Specifies the maximum number of not yet closed transactions to keep in the
  open pool. When this limit is exceeded, the Splunk platform begins to evict
  transactions using LRU (least-recently-used memory cache algorithm) policy.
* The default value of this attribute is read from the transactions stanza in
  limits.conf.

maxopenevents=<int>
* Specifies the maximum number of events that can be part of open transactions.
  When this limit is exceeded, the Splunk platform begins to evict transactions
  using LRU (least-recently-used memory cache algorithm) policy.
* The default value of this attribute is read from the transactions stanza in
  limits.conf.

keepevicted=<bool>
* Specifies whether to output evicted transactions. Evicted transactions can be
  distinguished from non-evicted transactions by checking the value of the
  'evicted' field, which is set to "1" for evicted transactions.
* Default: keepevicted=false

### multivalue rendering options ###

mvlist=<bool>|<field-list>
* Specifies whether the multivalued fields of the transaction are (1) a
  list of the original events ordered in arrival order or (2) a set of unique
  field values ordered lexicographically.
* If a comma or space delimited list of fields is provided, only those fields
  are rendered as lists.
* Default: mvlist=f

delim=<string>
* A string used to delimit the original event values in the transaction event
  fields.
* Default: " " (a single space)

nullstr=<string>
* The string value to use when rendering missing field values as part of mv
  fields in a transaction.
* This option applies only to fields that are rendered as lists.
* Default: NULL

### values used only by the searchtxn search command ###

search=<string>
* A search string used to more efficiently seed transactions of this type.
* Make the value as specific as possible, to limit the number of events
  that must be retrieved to find transactions.
* Example: sourcetype="sendmaill_sendmail"
* Default: "*" (all events)
```

transactiontypes.conf.example

```
#   Version 8.2.0
#
# This is an example transactiontypes.conf.  Use this file as a template to
# configure transactions types.
#
# To use one or more of these configurations, copy the configuration block into
# transactiontypes.conf in $SPLUNK_HOME/etc/system/local/.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[default]
maxspan = 5m
maxpause = 2s
match = closest

[purchase]
maxspan  = 10m
maxpause = 5m
fields  = userid
```

transforms.conf

以下为 transforms.conf 的规范和示例文件。

transforms.conf.spec

```
#   Version 8.2.0
#
# This file contains settings and values that you can use to configure
# data transformations.
#
# Transforms.conf is commonly used for:
# * Configuring host and source type overrides that are based on regular
#   expressions.
# * Anonymizing certain types of sensitive incoming data, such as credit
#   card or social security numbers.
# * Routing specific events to a particular index, when you have multiple
#   indexes.
# * Creating new index-time field extractions. NOTE: We do not recommend
#   adding to the set of fields that are extracted at index time unless it
#   is absolutely necessary because there are negative performance
#   implications.
# * Creating advanced search-time field extractions that involve one or more
#   of the following:
#   * Reuse of the same field-extracting regular expression across multiple
#     sources, source types, or hosts.
#   * Application of more than one regular expression to the same source,
#     source type, or host.
#   * Using a regular expression to extract one or more values from the values
#     of another field.
#   * Delimiter-based field extractions, such as extractions where the
#     field-value pairs are separated by commas, colons, semicolons, bars, or
#     something similar.
#   * Extraction of multiple values for the same field.
#   * Extraction of fields with names that begin with numbers or
#     underscores.
#   * NOTE: Less complex search-time field extractions can be set up
#           entirely in props.conf.
# * Setting up lookup tables that look up fields from external sources.
#
# All of the above actions require corresponding settings in props.conf.
#
# You can find more information on these topics by searching the Splunk
# documentation (http://docs.splunk.com/Documentation).
#
# There is a transforms.conf file in $SPLUNK_HOME/etc/system/default/. To
# set custom configurations, place a transforms.conf file in
# $SPLUNK_HOME/etc/system/local/.
#
# For examples of transforms.conf configurations, see the
# transforms.conf.example file.
#
```

```
# You can enable configuration changes made to transforms.conf by running this
# search in Splunk Web:
#
# | extract reload=t
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top
#    of the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, settings are combined. In the case of
#    multiple definitions of the same setting, the last definition in the
#    file wins.
#  * If a setting is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.


[<unique_transform_stanza_name>]
* Name your stanza. Use this name when you configure field extractions,
  lookup tables, and event routing in props.conf. For example, if you are
  setting up an advanced search-time field extraction, in props.conf you
  would add REPORT-<class> = <unique_transform_stanza_name> under the
  [<spec>] stanza that corresponds with a stanza you've created in
  transforms.conf.
* Follow this stanza name with any number of the following setting/value
  pairs, as appropriate for what you intend to do with the transform.
* If you do not specify an entry for each setting, Splunk software uses
  the default value.

REGEX = <regular expression>
* Enter a regular expression to operate on your data.
* NOTE: This setting is valid for index-time and search-time field extraction.
* REGEX is required for all search-time transforms unless you are setting up
  an ASCII-only delimiter-based field extraction, in which case you can use
  DELIMS (see the DELIMS setting description, below).
* REGEX is required for all index-time transforms.
* REGEX and the FORMAT setting:
  * FORMAT must be used in conjunction with REGEX for index-time transforms.
    Use of FORMAT in conjunction with REGEX is optional for search-time
    transforms.
  * Name-capturing groups in the REGEX are extracted directly to fields.
    This means that you do not need to specify the FORMAT setting for
    simple search-time field extraction cases (see the description of FORMAT,
    below).
  * If the REGEX for a field extraction configuration does not have the
    capturing groups referenced in the FORMAT, searches that use that
    configuration will not return events.
  * The REGEX must have at least one capturing group, even if the FORMAT does
    not reference any capturing groups.
  * If the REGEX extracts both the field name and its corresponding field
    value, you can use the following special capturing groups if you want to
    skip specifying the mapping in FORMAT for search-time field extractions:
      _KEY_<string>, _VAL_<string>.
  * For example, the following are equivalent for search-time field extractions:
    * Using FORMAT:
      * REGEX  = ([a-z]+)=([a-z]+)
      * FORMAT = $1::$2
    * Without using FORMAT
      * REGEX  = (?<_KEY_1>[a-z]+)=(?<_VAL_1>[a-z]+)
    * When using either of the above formats, in a search-time extraction,
      the regular expression attempts to match against the source text,
          extracting as many fields as can be identified in the source text.
* Default: empty string

FORMAT = <string>
* NOTE: This option is valid for both index-time and search-time field
  extraction. Index-time field extraction configurations require the FORMAT
  setting. The FORMAT setting is optional for search-time field extraction
  configurations.
* This setting specifies the format of the event, including any field names or
  values you want to add.
* FORMAT is required for index-time extractions:
  * Use $n (for example $1, $2, etc) to specify the output of each REGEX
    match.
  * If REGEX does not have n groups, the matching fails.
  * The special identifier $0 represents what was in the DEST_KEY before the
    REGEX was performed.
  * At index time only, you can use FORMAT to create concatenated fields:
    * Example: FORMAT = ipaddress::$1.$2.$3.$4
  * When you create concatenated fields with FORMAT, "$" is the only special
    character. It is treated as a prefix for regular expression capturing
        groups only if it is followed by a number and only if the number applies to
        an existing capturing group. So if REGEX has only one capturing group and
        its value is "bar", then:
      * "FORMAT = foo$1" yields "foobar"
      * "FORMAT = foo$bar" yields "foo$bar"
      * "FORMAT = foo$1234" yields "foo$1234"
      * "FORMAT = foo$1\$2" yields "foobar\$2"
  * At index-time, FORMAT defaults to <stanza-name>::$1
* FORMAT for search-time extractions:
  * The format of this field as used during search time extractions is as
    follows:
    * FORMAT = <field-name>::<field-value>( <field-name>::<field-value>)*
      where:
      * field-name  = [<string>|$<capturing-group-number>]
      * field-value = [<string>|$<capturing-group-number>]
  * Search-time extraction examples:
      * 1. FORMAT = first::$1 second::$2 third::other-value
      * 2. FORMAT = $1::$2
  * If the REGEX for a field extraction configuration does not have the
    capturing groups specified in the FORMAT, searches that use that
    configuration will not return events.
  * If you configure FORMAT with a variable <field-name>, such as in the second
    example above, the regular expression is repeatedly applied to the source
        key to match and extract all field/value pairs in the event.
  * When you use FORMAT to set both the field and the value (such as FORMAT =
    third::other-value), and the value is not an indexed token, you must set the
    field to INDEXED_VALUE = false in fields.conf. Not doing so can cause
    inconsistent search results.
  * NOTE: You cannot create concatenated fields with FORMAT at search time.
    That functionality is only available at index time.
  * At search-time, FORMAT defaults to an empty string.

MATCH_LIMIT = <integer>
* Only set in transforms.conf for REPORT and TRANSFORMS field extractions.
  For EXTRACT type field extractions, set this in props.conf.
* Optional. Limits the amount of resources that are spent by PCRE
  when running patterns that do not match.
* Use this to set an upper bound on how many times PCRE calls an internal
  function, match(). If set too low, PCRE may fail to correctly match a pattern.
* Default: 100000

DEPTH_LIMIT = <integer>
* Only set in transforms.conf for REPORT and TRANSFORMS field extractions.
   For EXTRACT type field extractions, set this in props.conf.
* Optional. Limits the amount of resources that are spent by PCRE
  when running patterns that do not match.
* Use this to limit the depth of nested backtracking in an internal PCRE
  function, match(). If set too low, PCRE might fail to correctly match a
  pattern.
* Default: 1000

CLONE_SOURCETYPE = <string>
* This name is wrong; a transform with this setting actually clones and
  modifies events, and assigns the new events the specified source type.
* If CLONE_SOURCETYPE is used as part of a transform, the transform creates a
  modified duplicate event for all events that the transform is applied to via
  normal props.conf rules.
* Use this setting when you need to store both the original and a modified
  form of the data in your system, or when you need to to send the original and
  a modified form to different outbound systems.
  * A typical example would be to retain sensitive information according to
    one policy and a version with the sensitive information removed
    according to another policy. For example, some events may have data
    that you must retain for 30 days (such as personally identifying
    information) and only 30 days with restricted access, but you need that
    event retained without the sensitive data for a longer time with wider
    access.
* Specifically, for each event handled by this transform, a near-exact copy
  is made of the original event, and the transformation is applied to the
  copy. The original event continues along normal data processing unchanged.
* The <string> used for CLONE_SOURCETYPE selects the source type that is used
  for the duplicated events.
* The new source type MUST differ from the the original source type. If the
  original source type is the same as the target of the CLONE_SOURCETYPE,
  Splunk software makes a best effort to log warnings to splunkd.log, but this
  setting is silently ignored at runtime for such cases, causing the transform
  to be applied to the original event without cloning.
* The duplicated events receive index-time transformations & sed
  commands for all transforms that match its new host, source, or source type.
  * This means that props.conf matching on host or source will incorrectly be
    applied a second time.
* Can only be used as part of of an otherwise-valid index-time transform.  For
  example REGEX is required, there must be a valid target (DEST_KEY or
  WRITE_META), etc as above.

LOOKAHEAD = <integer>
* NOTE: This option is valid for all index time transforms, such as
  index-time field creation, or DEST_KEY modifications.
* Optional. Specifies how many characters to search into an event.
* Default: 4096
  * You may want to increase this value if you have event line lengths that
    exceed 4096 characters (before linebreaking).

WRITE_META = <boolean>
* NOTE: This setting is only valid for index-time field extractions.
* Automatically writes REGEX to metadata.
* Required for all index-time field extractions except for those where
  DEST_KEY = _meta (see the description of the DEST_KEY setting, below)
* Use instead of DEST_KEY = _meta.
* Default: false

DEST_KEY = <KEY>
* NOTE: This setting is only valid for index-time field extractions.
* Specifies where Splunk software stores the expanded FORMAT results in
  accordance with the REGEX match.
* Required for index-time field extractions where WRITE_META = false or is
  not set.
* For index-time extractions, DEST_KEY can be set to a number of values
  mentioned in the KEYS section at the bottom of this file.
  * If DEST_KEY = _meta (not recommended) you should also add $0 to the
    start of your FORMAT setting.  $0 represents the DEST_KEY value before
    Splunk software performs the REGEX (in other words, _meta).
    * The $0 value is in no way derived *from* the REGEX match. (It
      does not represent a captured group.)
* KEY names are case-sensitive, and should be used exactly as they appear in
  the KEYs list at the bottom of this file. (For example, you would say
  DEST_KEY = MetaData:Host, *not* DEST_KEY = metadata:host .)
```

```
DEFAULT_VALUE = <string>
* NOTE: This setting is only valid for index-time field extractions.
* Optional. The Splunk software writes the DEFAULT_VALUE to DEST_KEY if the
  REGEX fails.
* Default: empty string

SOURCE_KEY = <string>
* NOTE: This setting is valid for both index-time and search-time field
  extractions.
* Optional. Defines the KEY that Splunk software applies the REGEX to.
* For search time extractions, you can use this setting to extract one or
  more values from the values of another field. You can use any field that
  is available at the time of the execution of this field extraction
* For index-time extractions use the KEYs described at the bottom of this
  file.
  * KEYs are case-sensitive, and should be used exactly as they appear in
    the KEYs list at the bottom of this file. (For example, you would say
    SOURCE_KEY = MetaData:Host, *not* SOURCE_KEY = metadata:host .)
* If <string> starts with "field:" or "fields:" the meaning is changed.
  Instead of looking up a KEY, it instead looks up an already indexed field.
  For example, if a CSV field name "price" was indexed then
  "SOURCE_KEY = field:price" causes the REGEX to match against the contents
  of that field.  It's also possible to list multiple fields here with
  "SOURCE_KEY = fields:name1,name2,name3" which causes MATCH to be run
  against a string comprising of all three values, separated by space
  characters.
* SOURCE_KEY is typically used in conjunction with REPEAT_MATCH in
  index-time field transforms.
* Default: _raw
  * This means it is applied to the raw, unprocessed text of all events.

REPEAT_MATCH = <boolean>
* NOTE: This setting is only valid for index-time field extractions.
* Optional. When set to true, Splunk software runs the REGEX multiple
  times on the SOURCE_KEY.
* REPEAT_MATCH starts wherever the last match stopped, and continues until
  no more matches are found. Useful for situations where an unknown number
  of REGEX matches are expected per event.
* Default: false

INGEST_EVAL = <comma-separated list of evaluator expressions>
* NOTE: This setting is only valid for index-time field extractions.
* Optional. When you set INGEST_EVAL, this setting overrides all of the other
  index-time settings (such as REGEX, DEST_KEY, etc) and declares the
  index-time extraction to be evaluator-based.
* The expression takes a similar format to the search-time "|eval" command.
  For example "a=b+c*d" Just like the search-time operator, you can
  string multiple expressions together, separated by commas like
  "len=length(_raw), length_category=floor(log(len,2))".
* Keys which are commonly used with DEST_KEY or SOURCE_KEY (like
  "_raw", "queue", etc) can be used directly in the expression.
  Also available are values which would be populated by default when
  this event is searched ("source", "sourcetype", "host", "splunk_server",
  "linecount", "index"). Search-time calculated fields (the "EVAL-" settings
  in props.conf) are NOT available.
* When INGEST_EVAL accesses the "_time" variable, subsecond information is
  included. This is unlike regular-expression-based index-time extractions,
  where  "_time" values are limited to whole seconds.
* By default, other variable names refer to index-time fields which are
  populated in "_meta" So an expression 'event_category=if(_raw LIKE "WARN %",
  "warning", "normal")' would append a new indexed field to _meta like
  "event_category::warning".
* You can force a variable to be treated as a direct KEY name by
  prefixing it with "pd:". You can force a variable to be always
  treated as a "_meta" field by prefixing it with "field:" Therefore
  the above expression could also be written as
  '$field:event_category$=if($pd:_raw$ LIKE "WARN %", "warning", "normal")'
* When writing to a _meta field, the default behavior is to add a new
```

```
  index-time field even if one exists with the same name, the same way
  WRITE_META works for regular-expression-based extractions. For example, "a=5,
  a=a+2" adds two index-time fields to _meta: "a::5 a::7". You can change this
  by using ":=" after the variable name. For example, setting "a=5, a:=a+2"
  causes Splunk software to add a single "a::7" field.
* NOTE: Replacing index-time fields is slower than adding them. It is best to
  only use ":=" when you need this behavior.
* The ":=" operator can also be used to remove existing fields in _meta
  by assigning the expression null() to them.
* When reading from an index-time field that occurs multiple times inside the
  _meta key, normally the first value is used. You can override this by
  prefixing the name with "mv:" which returns all of the values into a
  "multival" object. For example, if _meta contains the keys "v::a v::b" then
  'mvjoin(v,",")' returns "a" while 'mvjoin($mv:v$,",")' returns "a,b".
* Note that this "mv:" prefix does not change behavior when it writes to a
  _meta field. If the value returned by an expression is a multivalue, it
  always creates multiple index-time fields. For example,
  'x=mvappend("a","b","c")' causes the string "x::a x::b x::c" to be appended
  to the _meta key.
* Internally, the _meta key can hold values with various numeric types.
  Splunk software normally picks a type appropriate for the value that the
  expression returned. However, you can override this this choice by specifying
  a type in square brackets after the destination field name. For example,
  'my_len[int]=length(source)' creates a new field named "my_len" and forces it
  to be stored as a 64-bit integer inside _meta. You can force Splunk software
  to store a number as floating point by using the type "[float]". You can
  request a smaller, less-precise encoding by using "[float32]". If you want to
  store the value as floating point but also ensure that the Splunk software
  remembers the significant-figures information that the evaluation expression
  deduced, use "[float-sf]" or "[float32-sf]". Finally, you can force the
  result to be treated as a string by specifying "[string]".
* The capability of the search-time |eval operator to name the destination
  field based on the value of another field (like "| eval {destname}=1")
  is NOT available for index-time evaluations.
* Default: empty

DELIMS = <quoted string list>
* NOTE: This setting is only valid for search-time field extractions.
* IMPORTANT: If a value may contain an embedded unescaped double quote
  character, such as "foo"bar", use REGEX, not DELIMS. An escaped double
  quote (\") is ok. Non-ASCII delimiters also require the use of REGEX.
* Optional. Use DELIMS in place of REGEX when you are working with ASCII-only
  delimiter-based field extractions, where field values (or field/value pairs)
  are separated by delimiters such as colons, spaces, line breaks, and so on.
* Sets delimiter characters, first to separate data into field/value pairs,
  and then to separate field from value.
* Each individual ASCII character in the delimiter string is used as a
  delimiter to split the event.
* Delimiters must be specified within double quotes (eg. DELIMS="|,;").
  Special escape sequences are \t (tab), \n (newline), \r (carriage return),
  \\ (backslash) and \" (double quotes).
* When the event contains full delimiter-separated field/value pairs, you
  enter two sets of quoted characters for DELIMS:
* The first set of quoted delimiters extracts the field/value pairs.
* The second set of quoted delimiters separates the field name from its
  corresponding value.
* When the event only contains delimiter-separated values (no field names),
  use just one set of quoted delimiters to separate the field values. Then use
  the FIELDS setting to apply field names to the extracted values.
  * Alternately, Splunk software reads even tokens as field names and odd
    tokens as field values.
* Splunk software consumes consecutive delimiter characters unless you
  specify a list of field names.
* The following example of DELIMS usage applies to an event where
  field/value pairs are separated by '|' symbols and the field names are
  separated from their corresponding values by '=' symbols:
    [pipe_eq]
    DELIMS = "|", "="
* Default: ""
```

```
FIELDS = <quoted string list>
* NOTE: This setting is only valid for search-time field extractions.
* Used in conjunction with DELIMS when you are performing delimiter-based
  field extraction and only have field values to extract.
* FIELDS enables you to provide field names for the extracted field values,
  in list format according to the order in which the values are extracted.
* NOTE: If field names contain spaces or commas they must be quoted with " "
  To escape, use \.
* The following example is a delimiter-based field extraction where three
  field values appear in an event. They are separated by a comma and then a
  space.
    [commalist]
    DELIMS = ", "
    FIELDS = field1, field2, field3
* Default: ""

MV_ADD = <boolean>
* NOTE: This setting is only valid for search-time field extractions.
* Optional. Controls what the extractor does when it finds a field which
  already exists.
* If set to true, the extractor makes the field a multivalued field and
  appends the newly found value, otherwise the newly found value is
  discarded.
* Default: false

CLEAN_KEYS = <boolean>
* NOTE: This setting is only valid for search-time field extractions.
* Optional. Controls whether Splunk software "cleans" the keys (field names) it
  extracts at search time. "Key cleaning" is the practice of replacing any
  non-alphanumeric characters (characters other than those falling between the
  a-z, A-Z, or 0-9 ranges) in field names with underscores, as well as the
  stripping of leading underscores and 0-9 characters from field names.
* Add CLEAN_KEYS = false to your transform if you need to extract field
  names that include non-alphanumeric characters, or which begin with
  underscores or 0-9 characters.
* Default: true

KEEP_EMPTY_VALS = <boolean>
* NOTE: This setting is only valid for search-time field extractions.
* Optional. Controls whether Splunk software keeps field/value pairs when
  the value is an empty string.
* This option does not apply to field/value pairs that are generated by
  Splunk software autokv extraction. Autokv ignores field/value pairs with
  empty values.
* Default: false

CAN_OPTIMIZE = <boolean>
* NOTE: This setting is only valid for search-time field extractions.
* Optional. Controls whether Splunk software can optimize this extraction out
  (another way of saying the extraction is disabled).
* You might use this if you are running searches under a Search Mode setting
  that disables field discovery--it ensures that Software always discovers
  specific fields.
* Splunk software only disables an extraction if it can determine that none of
  the fields identified by the extraction will ever be needed for the successful
  evaluation of a search.
* NOTE: This option should be rarely set to false.
* Default: true
```

查找表

```
# NOTE: Lookup tables are used ONLY during search time

filename = <string>
* Name of static lookup file.
* File should be in $SPLUNK_HOME/etc/system/lookups/, or in
  $SPLUNK_HOME/etc/apps/<app_name>/lookups/ if the lookup belongs to a specific
  app.
* If file is in multiple 'lookups' directories, no layering is done.
* Standard conf file precedence is used to disambiguate.
* Only file names are supported. Paths are explicitly not supported. If you
  specify a path, Splunk software strips the path to use the value after
  the final path separator.
* Splunk software then looks for this filename in
  $SPLUNK_HOME/etc/system/lookups/ or $SPLUNK_HOME/etc/apps/<app_name>/lookups/.
* Default: empty string

collection = <string>
* Name of the collection to use for this lookup.
* Collection should be defined in $SPLUNK_HOME/etc/apps/<app_name>/collections.conf
  for an <app_name>
* If collection is in multiple collections.conf file, no layering is done.
* Standard conf file precedence is used to disambiguate.
* Default: empty string (in which case the name of the stanza is used).

max_matches = <integer>
* The maximum number of possible matches for each input lookup value
  (range 1 - 1000).
* If the lookup is non-temporal (not time-bounded, meaning the time_field
  setting is not specified), Splunk software uses the first <integer> entries,
  in file order.
* If the lookup is temporal, Splunk software uses the first <integer> entries
  in descending time order. In other words, only <max_matches> lookup entries
  are allowed to match. If the number of lookup entries exceeds <max_matches>,
  only the ones nearest to the lookup value are used.
* Default: 100 matches if the time_field setting is not specified for the
  lookup. If the time_field setting is specified for the lookup, the default is
  1 match.

min_matches = <integer>
* Minimum number of possible matches for each input lookup value.
* Default = 0 for both temporal and non-temporal lookups, which means that
  Splunk software outputs nothing if it cannot find any matches.
* However, if min_matches > 0, and Splunk software gets less than min_matches,
  it provides the default_match value provided (see below).

default_match = <string>
* If min_matches > 0 and Splunk software has less than min_matches for any
  given input, it provides this default_match value one or more times until the
  min_matches threshold is reached.
* Default: empty string.

case_sensitive_match = <boolean>
* NOTE: This attribute is not valid for KV Store-based lookups.
* If set to true, Splunk software performs case sensitive matching for all
  fields in a lookup table.
* If set to false, Splunk software performs case insensitive matching for all
  fields in a lookup table.
* For field matching in reverse lookups see
  reverse_lookup_honor_case_sensitive_match.
* Default: true

reverse_lookup_honor_case_sensitive_match = <boolean>
* Determines whether field matching for a reverse lookup is case sensitive or
  case insensitive.
* When set to true, and 'case_sensitive_match' is true Splunk software performs
  case-sensitive matching for all fields in a reverse lookup.
* When set to true, and 'case_sensitive_match' is false Splunk software
  performs case-insensitive matching for all fields in a reverse lookup.
* When set to false, Splunk software performs case-insensitive matching for
  all fields in a reverse lookup.
* NOTE: This setting does not apply to KV Store lookups.
* Default: true
```

```
match_type = <string>
* A comma and space-delimited list of <match_type>(<field_name>)
  specification to allow for non-exact matching
* The available match_type values are WILDCARD, CIDR, and EXACT. Only fields
  that should use WILDCARD or CIDR matching should be specified in this list.
* Default: EXACT

external_cmd = <string>
* Provides the command and arguments to invoke to perform a lookup. Use this
  for external (or "scripted") lookups, where you interface with with an
  external script rather than a lookup table.
* This string is parsed like a shell command.
* The first argument is expected to be a python script (or executable file)
  located in $SPLUNK_HOME/etc/apps/<app_name>/bin (or ../etc/searchscripts).
* Presence of this field indicates that the lookup is external and command
  based.
* Default: empty string

fields_list = <string>
* A comma- and space-delimited list of all fields that are supported by the
  external command.

index_fields_list = <string>
* A comma- and space-delimited list of fields that need to be indexed
  for a static .csv lookup file.
* The other fields are not indexed and not searchable.
* Restricting the fields enables better lookup performance.
* Default: all fields that are defined in the .csv lookup file header.

external_type = [python|executable|kvstore|geo|geo_hex]
* This setting describes the external lookup type.
* Use 'python' for external lookups that use a python script.
* Use 'executable' for external lookups that use a binary executable, such as a
  C++ executable.
* Use 'kvstore' for KV store lookups.
* Use 'geo' for geospatial lookups.
* 'geo_hex' is reserved for the geo_hex H3 lookup.
* Default: python

python.version = {default|python|python2|python3}
* For Python scripts only, selects which Python version to use.
* Set to either "default" or "python" to use the system-wide default Python
  version.
* Optional.
* Default: Not set; uses the system-wide Python version.

time_field = <string>
* Used for temporal (time bounded) lookups. Specifies the name of the field
  in the lookup table that represents the timestamp.
* Default: empty string
  * This means that lookups are not temporal by default.

time_format = <string>
* For temporal lookups this specifies the 'strptime' format of the timestamp
  field.
* You can include subseconds but Splunk software ignores them.
* Default: %s.%Q (seconds from unix epoch in UTC and optional milliseconds)

max_offset_secs = <integer>
* For temporal lookups, this is the maximum time (in seconds) that the event
  timestamp can be later than the lookup entry time for a match to occur.
* Default: 2000000000, or the offset in seconds from 0:00 UTC Jan 1, 1970.
  Whichever is reached first.

min_offset_secs = <integer>
* For temporal lookups, this is the minimum time (in seconds) that the event
  timestamp can be later than the lookup entry timestamp for a match to
  occur.
* Default: 0
```

```
batch_index_query = <boolean>
* For large file-based lookups, batch_index_query determines whether queries
  can be grouped to improve search performance.
* Default (this level): not set
* Default (global level, at limits.conf): true

allow_caching = <boolean>
* Allow output from lookup scripts to be cached
* Default: true

cache_size = <integer>
* Cache size to be used for a particular lookup. If a previously looked up
  value is already present in the cache, it is applied.
* The cache size represents the number of input values for which to cache
  output values from a lookup table.
* Do not change this value unless you are advised to do so by Splunk Support or
  a similar authority.
* Default: 10000

max_ext_batch = <integer>
* The maximum size of external batch (range 1 - 1000).
* This setting applies only to KV Store lookup configurations.
* Default: 300

filter = <string>
* Filter results from the lookup table before returning data. Create this filter
  like you would a typical search query using Boolean expressions and/or
  comparison operators.
* For KV Store lookups, filtering is done when data is initially retrieved to
  improve performance.
* For CSV lookups, filtering is done in memory.

feature_id_element = <string>
* If the lookup file is a kmz file, this field can be used to specify the xml
  path from placemark down to the name of this placemark.
* This setting applies only to geospatial lookup configurations.
* Default: /Placemark/name

check_permission = <boolean>
* Specifies whether the system can verify that a user has write permission to a
  lookup file when that user uses the outputlookup command to modify that file.
  If the user does not have write permissions, the system prevents the
  modification.
* The check_permission setting is only respected when you set
  'outputlookup_check_permission'
  to "true" in limits.conf.
* You can set lookup table file permissions in the .meta file for each lookup
  file, or through the Lookup Table Files page in Settings. By default, only
  users who have the admin or power role can write to a shared CSV lookup file.
* This setting applies only to CSV lookup configurations.
* Default: false

replicate = <boolean>
* Indicates whether to replicate CSV lookups to indexers.
* When false, the CSV lookup is replicated only to search heads in a search
  head cluster so that input lookup commands can use this lookup on the search
  heads.
* When true, the CSV lookup is replicated to both indexers and search heads.
* Only for CSV lookup files.
* Note that replicate=true works only if it is included in the replication
  allow list. See the 'replicationWhitelist' setting in distSearch.conf.
* Default: true
```

指标 - STATSD 维度提取

指标

```
[statsd-dims:<unique_transforms_stanza_name>]
* 'statsd-dims' prefix indicates this stanza is applicable only to statsd metric
  type input data.
* This stanza is used to define regular expression to match and extract
  dimensions out of statsd dotted name segments.
* By default, only the unmatched segments of the statsd dotted name segment
  become the metric_name.

REGEX = <regular expression>
* Splunk software supports a named capturing group extraction format to provide
  dimension names of the corresponding values being extracted out. For example:
    (?<dim1>group)(?<dim2>group)..

REMOVE_DIMS_FROM_METRIC_NAME = <boolean>
* If set to false, the matched dimension values from the REGEX above would also
  be a part of the metric name.
* If true, the matched dimension values would not be a part of metric name.
* Default: true

[metric-schema:<unique_transforms_stanza_name>]
* Helps in transformation of index-time field extractions from a log events
  into a metrics data point with a required measurement fields.
* The other extracted fields from the log event become dimensions in the
  generated metrics data point.
* You must provide one of the following two settings:
  METRIC-SCHEMA-MEASURES-<unique_metric_name_prefix> or METRIC-SCHEMA-MEASURES. These
  settings are required and will inform which measurement indexed-time fields get
  created with key::value = metric_name:<metric_name>::<measurement>

METRIC-SCHEMA-MEASURES-<unique_metric_name_prefix> = (_ALLNUMS_ | (_NUMS_EXCEPT_ )? <field1>, <field2>,... )
* Optional.
* <unique_metric_name_prefix> should match the value of a field extracted from
  the event.
* If this setting is exactly equal to _ALLNUMS_, the Splunk software treats
  all numeric fields as measures.
* If this setting starts with _NUMS_EXCEPT_, the Splunk software treats all
  numerical fields except those that match the given field names as  measures.
  * NOTE: a space is required between the '_NUMS_EXCEPT_' prefix and '<field1>'.
* Otherwise, the Splunk software treats all fields that are listed and which
  have a numerical value as measures.
* If the value of the 'metric_name' index-time extraction matches with the
  <unique_metric_name_prefix>, the Splunk platform:
  * Creates a metric with a new metric_name for each measure field where the
    metric_name value is the name of the field prefixed by the
    <unique_metric_name_prefix>.
  * Saves the corresponding numeric value for each measure field as '_value'
    within each metric.
* The Splunk platform saves the remaining index-time field extractions as
  dimensions in each of the created metrics.
* Use the wildcard character ("*") to match multiple similar <field>
  values in your event data. For example, say your event data contains the
  following measurement fields: 'current_size_kb', 'max_size_kb', and
  'min_size_kb'. You can set a <field> value of '*_size_kb' to include all
  three of those measurement fields in the field list without listing each one
  separately.
* Default: empty string

METRIC-SCHEMA-BLACKLIST-DIMS-<unique_metric_name_prefix> = <dimension_field1>,
<dimension_field2>,...
* Optional.
* This deny list configuration lets the Splunk platform omit unnecessary
  dimensions when it transforms event data to metrics data. You might set this
  up if some of the dimensions in your event data are high-cardinality and are
  unnecessary for your metrics.
* Use this configuration in conjunction with a corresponding
  METRIC-SCHEMA-MEASURES-<unique_metric_name_prefix> configuration.
* <unique_metric_name_prefix> should match the value of a field extracted from
  the log event.
* <dimension_field> should match the name of a field in the log event that is
  not extracted as a measure field in the corresponding METRIC-SCHEMA-
  MEASURES-<unique_metric_name_prefix> configuration.
* Use the wildcard character ("*") to match multiple similar <dimension_field>
  values in your event data. For example, say your event data contains the
  following dimensions: 'customer_id', 'employee_id', and 'consultant_id'. You
  can set a <dimension_name> value of '*_id' to include all three of those
  dimensions in the dimension field list without listing each one separately.
* The Splunk platform applies the following evaluation logic when you use the
  METRIC-SCHEMA-BLACKLIST-DIMS-<unique_metric_name_prefix> and the
  METRIC-SCHEMA-WHITELIST-DIMS-<unique_metric_name_prefix>
  configurations simultaneously in a stanza:
  * If a dimension is in the deny list (METRIC-SCHEMA-BLACKLIST-DIMS), it will
    not be present in the resulting metric data points, even if it also appears
    in the allow list (METRIC-SCHEMA-WHITELIST-DIMS).
  * If a dimension is not in the allow list, it will not be present in the
    resulting metric data points, even if it also does not appear in the
    deny list.
* Default: empty string

METRIC-SCHEMA-WHITELIST-DIMS-<unique_metric_name_prefix> = <dimension_field1>,
<dimension_field2>,...
* Optional.
* This allow list configuration allows the Splunk platform to include only a
  specified subset of dimensions when it transforms event data to metrics data.
  You might include an allow list in your log-to-metrics configuraton if many of
  the dimensions in your event data are high-cardinality and are unnecessary
  for your metrics.
* Use this configuration in conjunction with a corresponding
  METRIC-SCHEMA-MEASURES-<unique_metric_name_prefix> configuration.
* <unique_metric_name_prefix> should match the value of a field extracted from
  the log event.
* <dimension_field> should match the name of a field in the log event that is
  not extracted as a measure field in the corresponding METRIC-SCHEMA-
  MEASURES-<unique_metric_name_prefix> configuration.
* Use the wildcard character ("*") to match multiple similar <dimension_field>
  values in your event data. For example, say your event data contains the
  following dimensions: 'customer_id', 'employee_id', and 'consultant_id'. You
  can set a <dimension_name> value of '*_id' to include all three of those
  dimensions in the dimension field list without listing each one separately.
* The Splunk platform applies the following evaluation logic when you use the
  METRIC-SCHEMA-BLACKLIST-DIMS-<unique_metric_name_prefix> and the
  METRIC-SCHEMA-WHITELIST-DIMS-<unique_metric_name_prefix>
  configurations simultaneously in a stanza:
  * If a dimension is in the deny list (METRIC-SCHEMA-BLACKLIST-DIMS), it will
    not be present in the resulting metric data points, even if it also appears
    in the allow list (METRIC-SCHEMA-WHITELIST-DIMS).
  * If a dimension is not in the allow list, it will not be present in the
    resulting metric data points, even if it also does not appear in the
    deny list.
* When the allow list is empty, it behaves as if it contains all fields.
* Default: empty string

METRIC-SCHEMA-MEASURES = (_ALLNUMS_ | (_NUMS_EXCEPT_ )? <field1>, <field2>,... )
* Optional.
* This configuration has a lower precedence over METRIC-SCHEMA-MEASURES-<unique_metric_name_prefix>
  if event has a match for unique_metric_name_prefix
* When no prefix can be identified, this configuration is active
  to create a new metric for each measure field in the event data, as defined
  in the previous description for METRIC-SCHEMA-MEASURES-<unique_metric_name_prefix>
* The Splunk platform saves the remaining index-time field extractions as
  dimensions in each of the created metrics.
* Use the wildcard character ("*") to match multiple similar <field>
```

```
  values in your event data. For example, say your event data contains the
  following measurement fields: 'current_size_kb', 'max_size_kb', and
  'min_size_kb'. You can set a <field> value of '*_size_kb' to include all
  three of those measurement fields in the field list without listing each one
  separately.
* Default: empty string

METRIC-SCHEMA-BLACKLIST-DIMS = <dimension_field1>, <dimension_field2>,...
* Optional.
* This deny list configuration allows the Splunk platform to omit unnecessary
  dimensions when it transforms event data to metrics data. You might set this
  up if some of the dimensions in your event data are high-cardinality and are
  unnecessary for your metrics.
* Use this configuration in conjunction with a corresponding
  METRIC-SCHEMA-MEASURES configuration.
* <dimension_field> should match the name of a field in the log event that is
  not extracted as a <measure_field> in the corresponding METRIC-SCHEMA-
  MEASURES configuration.
* Use the wildcard character ("*") to match multiple similar <dimension_field>
  values in your event data. For example, say your event data contains the
  following dimensions: 'customer_id', 'employee_id', and 'consultant_id'. You
  can set a <dimension_name> value of '*_id' to include all three of those
  dimensions in the dimension field list without listing each one separately.
* The Splunk platform applies the following evaluation logic when you use the
  METRIC-SCHEMA-BLACKLIST-DIMS and the METRIC-SCHEMA-WHITELIST-DIMS
  configurations simultaneously in a stanza:
  * If a dimension is in the deny list (METRIC-SCHEMA-BLACKLIST-DIMS), it will
    not be present in the resulting metric data points, even if it also appears
    in the allow list (METRIC-SCHEMA-WHITELIST-DIMS).
  * If a dimension is not in the allow list, it will not be present in the
    resulting metric data points, even if it also does not appear in the
    deny list.
* Default: empty string

METRIC-SCHEMA-WHITELIST-DIMS = <dimension_field1>, <dimension_field2>,...
* Optional.
* This allow list configuration allows the Splunk platform to include only a
  specified subset of dimensions when it transforms event data to metrics data.
  You might include an allow list in your log-to-metrics configuraton if many of
  the dimensions in your event data are high-cardinality and are unnecessary
  for your metrics.
* Use this configuration in conjunction with a corresponding
  METRIC-SCHEMA-MEASURES configuration.
* <dimension_field> should match the name of a field in the log event that is
  not extracted as a <measure_field> in the corresponding METRIC-SCHEMA-
  MEASURES configuration.
* Use the wildcard character ("*") to match multiple similar <dimension_field>
  values in your event data. For example, say your event data contains the
  following dimensions: 'customer_id', 'employee_id', and 'consultant_id'. You
  can set a <dimension_name> value of '*_id' to include all three of those
  dimensions in the dimension field list without listing each one separately.
* The Splunk platform applies the following evaluation logic when you use the
  METRIC-SCHEMA-BLACKLIST-DIMS and the METRIC-SCHEMA-WHITELIST-DIMS
  configurations simultaneously in a stanza:
  * If a dimension is in the deny list (METRIC-SCHEMA-BLACKLIST-DIMS), it will
    not be present in the resulting metric data points, even if it also appears
    in the allow list (METRIC-SCHEMA-WHITELIST-DIMS).
  * If a dimension is not in the allow list, it will not be present in the
    resulting metric data points, even if it also does not appear in the
    deny list.
* Default: empty string
  * When the allow list is empty it behaves as if it contains all fields.
```

鍵:

```
* NOTE: Keys are case-sensitive. Use the following keys exactly as they
```

```
        appear.

queue : Specify which queue to send the event to (can be nullQueue, indexQueue).
        * indexQueue is the usual destination for events going through the
          transform-handling processor.
        * nullQueue is a destination which causes the events to be
          dropped entirely.
_raw  : The raw text of the event.
_meta : A space-separated list of metadata for an event.
_time : The timestamp of the event, in seconds since 1/1/1970 UTC.

MetaData:Host       : The host associated with the event.
                      The value must be prefixed by "host::"

_MetaData:Index     : The index where the event should be stored.

MetaData:Source     : The source associated with the event.
                      The value must be prefixed by "source::"

MetaData:Sourcetype : The source type of the event.
                      The value must be prefixed by "sourcetype::"

_TCP_ROUTING        : Comma separated list of tcpout group names (from
                      outputs.conf)
                                          Defaults to groups present in 'defaultGroup' for [tcpout].

_SYSLOG_ROUTING     : Comma separated list of syslog-stanza  names (from
                      outputs.conf)
                                          Defaults to groups present in 'defaultGroup' for [syslog].

* NOTE: Any KEY (field name) prefixed by '_' is not indexed by Splunk software,   in general.

[accepted_keys]

<name> = <key>
* Modifies the list of valid SOURCE_KEY and DEST_KEY values. Splunk software
  checks the SOURCE_KEY and DEST_KEY values in your transforms against this
  list when it performs index-time field transformations.
* Add entries to [accepted_keys] to provide valid keys for specific
  environments, apps, or similar domains.
* The 'name' element disambiguates entries, similar to -class entries in
  props.conf.
* The 'name' element can be anything you choose, including a description of
  the purpose of the key.
* The entire stanza defaults to not being present, causing all keys not
  documented just above to be flagged.
* Default: not set
```

transforms.conf.example

```
#   Version 8.2.0
#
# This is an example transforms.conf.  Use this file to create regexes and
# rules for transforms.  Use this file in tandem with props.conf.
#
# To use one or more of these configurations, copy the configuration block
# into transforms.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# Note: These are examples.  Replace the values with your own customizations.
# Indexed field:

[netscreen-error]
REGEX =  device_id=\[w+\](?<err_code>[^:]+)
FORMAT = err_code::$1
WRITE_META = true


# Override host:

[hostoverride]
DEST_KEY = MetaData:Host
REGEX = \s(\w*)$
FORMAT = host::$1


# Extracted fields:

[netscreen-error-field]
REGEX = device_id=\[w+\](?<err_code>[^:]+)
FORMAT = err_code::$1

# Index-time evaluations:

[discard-long-lines]
INGEST_EVAL = queue=if(length(_raw) > 500, "nullQueue", "indexQueue")

[split-into-sixteen-indexes-for-no-good-reason]
INGEST_EVAL = index="split_" . substr(md5(_raw),1,1)

[add-two-numeric-fields]
INGEST_EVAL = loglen_raw=ln(length(_raw)), loglen_src=ln(length(source))

# In this example the Splunk platform only creates the new index-time field if
# the hostname has a dot in it; assigning null() to a new field is a no-op:

[add-hostdomain-field]
INGEST_EVAL = hostdomain=if(host LIKE "%.%", replace(host,"^[^\\.]+\\.",""), null())

# Static lookup table

[mylookuptable]
filename = mytable.csv

# One-to-one lookup guarantees that the Splunk platform outputs a single
# lookup value for each input value. When no match exists, the Splunk platform
# uses the value for "default_match", which by default is nothing.

[mylook]
filename = mytable.csv
max_matches = 1
min_matches = 1
default_match =

# Lookup and filter results:

[myfilteredlookup]
filename = mytable.csv
filter = id<500 AND color="red"

# external command lookup table:

[myexternaltable]
external_cmd = testadapter.py blah
fields_list = foo bar

# Temporal based static lookup table:

[staticwtime]
```

```
filename = mytable.csv
time_field = timestamp
time_format = %d/%m/%y %H:%M:%S

# Mask sensitive data:

[session-anonymizer]
REGEX = (?m)^(.*)SessionId=\w+(\w{4}[&"].*)$
FORMAT = $1SessionId=########$2
DEST_KEY = _raw

# Route to an alternate index:

[AppRedirect]
REGEX = Application
DEST_KEY = _MetaData:Index
FORMAT = Verbose

# Extract comma-delimited values into fields:
# This example assigns extracted values that do not have file names
# from _raw to field1, field2 and field3, in the order that the
# fields are extracted.
#If the Splunk platform extracts more than three values that do not
# have field names, then the Splunk platform ignores those values.

[extract_csv]
DELIMS = ","
FIELDS = "field1", "field2", "field3"

# This example extracts key-value pairs which are separated by '|'
# while the key is delimited from value by '='

[pipe_eq]
DELIMS = "|", "="

# This example extracts key-value pairs which are separated by '|' or
# ';', while the key is delimited from value by '=' or ':'

[multiple_delims]
DELIMS = "|;", "=:"


###### BASIC MODULAR REGULAR EXPRESSIONS DEFINITION START ###########
# When you add a new basic modular regex you must add a comment that
# lists the fields that it extracts as named capturing groups.
# If there are no field names, note the placeholders
# for the group name as: Extracts: field1, field2....

[all_lazy]
REGEX = .*?

[all]
REGEX = .*

[nspaces]
# Matches one or more NON space characters:
REGEX = \S+

[alphas]
# Matches a string containing only letters a-zA-Z:
REGEX = [a-zA-Z]+

[alnums]
# Matches a string containing letters + digits:
REGEX = [a-zA-Z0-9]+

[qstring]
# Matches a quoted "string" and extracts an unnamed variable
# Name MUST be provided as: [[qstring:name]]
# Extracts: empty-name-group (needs name)
REGEX = "(?<>[^"]*+)"

[sbstring]
# Matches a string enclosed in [] and extracts an unnamed variable
# Name must be provided as: [[sbstring:name]]
# Extracts: empty-name-group (needs name)
REGEX = \[(?<>[^\]]*+)\]

[digits]
REGEX = \d+

[int]
# Matches an integer or a hex number:
REGEX = 0x[a-fA-F0-9]+|\d+

[float]
# Matches a float (or an int):
REGEX = \d*\.\d+|[[int]]

[octet]
# Matches only numbers from 0-255 (one octet in an ip):
REGEX = (?:2(?:5[0-5]|[0-4][0-9])|[0-1][0-9][0-9]|[0-9][0-9]?)

[ipv4]
# Matches a valid IPv4 optionally followed by :port_num. The octets in the IP
# are also be validated in the 0-255 range.
# Extracts: ip, port
REGEX = (?<ip>[[octet]](?:\.[[octet]]){3})(?::[[int:port]])?

[simple_url]
# Matches a url of the form proto://domain.tld/uri
# Extracts: url, domain
REGEX = (?<url>\w++://(?<domain>[a-zA-Z0-9\-.:]++)(?:/[^\s"]*)?)

[url]
# Matches a url in the form of: proto://domain.tld/uri
# Extracts: url, proto, domain, uri
REGEX = (?<url>[[alphas:proto]]://(?<domain>[a-zA-Z0-9\-.:]++)(?<uri>/[^\s"]*)?)

[simple_uri]
# Matches a uri in the form of: /path/to/resource?query
# Extracts: uri, uri_path, uri_query
REGEX = (?<uri>(?<uri_path>[^\s\?"]++)(?:\\?(?<uri_query>[^\s"]+))?)

[uri]
# uri  = path optionally followed by query [/this/path/file.js?query=part&other=var]
# path = root part followed by file        [/root/part/file.part]
# Extracts: uri, uri_path, uri_root, uri_file, uri_query, uri_domain (optional if in proxy mode)
REGEX = (?<uri>(?:\w++://(?<uri_domain>[^/\s]++))?(?<uri_path>(?<uri_root>/+(?:[^\s\?;=/]*+/+)*)(?<uri
_file>[^\s\?;=?/]*+))(?:\?(?<uri_query>[^\s"]+))?)

[hide-ip-address]
# When you make a clone of an event with the sourcetype masked_ip_address, the clone's
# text is changed to mask the IP address.
# The cloned event is further processed by index-time transforms and
# SEDCMD expressions according to its new sourcetype.
# In most scenarios an additional transform directs the
# masked_ip_address event to a different index than the original data.
REGEX = ^(.*?)src=\d+\.\d+\.\d+\.\d+(.*)$
FORMAT = $1src=XXXXX$2
DEST_KEY = _raw
CLONE_SOURCETYPE = masked_ip_addresses

# Set repeat_match to true to repeatedly match the regex in the data.
# When repeat_match is set to true, regex is added as indexed
# fields: a, b, c, d, e, etc. For example: 1483382050 a=1 b=2 c=3 d=4 e=5
# If repeat_match is not set, the match stops at a=1.
[repeat_regex]
```

```
REGEX = ([a-z])=(\d+)
FORMAT = $1::$2
REPEAT_MATCH = true
WRITE_META = true

###### BASIC MODULAR REGULAR EXPRESSIONS DEFINITION END ##########

# Statsd dimensions extraction:

# In most cases the Splunk platform needs only one regex to run per
# sourcetype. By default the Splunk platform would look for the sourcetype
# name in transforms.conf. There there is no need to provide
# the STATSD-DIM-TRANSFORMS setting in props.conf.

# For example, these two stanzas would extract dimensions as ipv4=10.2.3.4
# and os=windows from statsd data=mem.percent.used.10.2.3.4.windows:33|g
[statsd-dims:regex_stanza1]
REGEX = (?<ipv4>\d{1,3}.\d{1,3}.\d{1,3}.\d{1,3})
REMOVE_DIMS_FROM_METRIC_NAME = true

[statsd-dims:regex_stanza2]
REGEX = \S+\.(?<os>\w+):
REMOVE_DIMS_FROM_METRIC_NAME = true



[statsd-dims:metric_sourcetype_name]
# In this example, we extract both ipv4 and os dimension using a single regex:
REGEX = (?<ipv4>\d{1,3}.\d{1,3}.\d{1,3}.\d{1,3})\.(?<os>\w+):
REMOVE_DIMS_FROM_METRIC_NAME = true


# In this metrics example, we start with this log line:
#
# 01-26-2018 07:49:49.030 -0800 INFO  Metrics - group=queue, name=aggqueue, max_size_kb=1024, current_size_kb=1,
# current_size=3, largest_size=49, smallest_size=0, dc_latitude=37.3187706, dc_longitude=-121.9515042
#
# The following stanza converts that single event into multiple metrics at
# index-time. It deny lists the "dc_latitude" and "dc_longitude" dimensions,
# which means they are omitted from the generated metric data points. It also
# allow lists the "name" and "dc_latitude" dimensions, which means that those
# dimensions potentially are the only dimensions that appear in the
# generated metric data points.
# When a log-to-metrics configuration simultaneously includes allow list and
# deny list dimensions, the Splunk platform includes the dimensions that
# appear in the allow list and also do not appear in the deny list
# for the generated metric data points. For example, "dc_latitude" appears in
# the allow list, but also in the deny list, so it is not included in the generated
# metric data points. The metric data points generated by this configuration
# have "name" as their sole dimension.
[metric-schema:logtometrics]
METRIC-SCHEMA-MEASURES-queue = max_size_kb,current_size_kb,current_size,largest_size,smallest_size
METRIC-SCHEMA-BLACKLIST-DIMS-queue = dc_latitude,dc_longitude
METRIC-SCHEMA-WHITELIST-DIMS-queue = name,dc_latitude

# Here are the metrics generated by that stanza:
# {'metric_name' : 'queue.max_size_kb',    '_value' : 1024, 'name': 'aggqueue'},
# {'metric_name' : 'queue.current_size_kb, '_value' : 1,    'name': 'aggqueue'},
# {'metric_name' : 'queue.current_size',   '_value' : 3,    'name': 'aggqueue'},
# {'metric_name' : 'queue.largest_size',   '_value' : 49,   'name': 'aggqueue'},
# {'metric_name' : 'queue.smallest_size',  '_value' : 0,    'name': 'aggqueue'}

# You can use wildcard characters ('*') in METRIC-SCHEMA configurations. In
# the preceding example, '*_size' matches 'current_size', 'largest_size', and
# 'smallest_size'. The following configuration uses a wildcard to include all
# three of those fields without individually listing each one.
# METRIC-SCHEMA-MEASURES-queue = max_size_kb,current_size_kb,*_size

# In the sample log above, group=queue represents the unique metric name prefix. Hence, it needs to be
# formatted and saved as metric_name::queue for Splunk to identify queue as a metric name prefix.
[extract_group]
REGEX = group=(\w+)
FORMAT = metric_name::$1
WRITE_META = true

[extract_name]
REGEX = name=(\w+)
FORMAT = name::$1
WRITE_META = true

[extract_max_size_kb]
REGEX = max_size_kb=(\w+)
FORMAT = max_size_kb::$1
WRITE_META = true

[extract_current_size_kb]
REGEX = current_size_kb=(\w+)
FORMAT = current_size_kb::$1
WRITE_META = true

[extract_current_size]
REGEX = max_size_kb=(\w+)
FORMAT = max_size_kb::$1
WRITE_META = true

[extract_largest_size]
REGEX = largest_size=(\w+)
FORMAT = largest_size::$1
WRITE_META = true

[extract_smallest_size]
REGEX = smallest_size=(\w+)
FORMAT = smallest_size::$1
WRITE_META = true
```

ui-prefs.conf

以下为 ui-prefs.conf 的规范和示例文件。

ui-prefs.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure the ui for a view.
#
# There is a ui-prefs.conf in $SPLUNK_HOME/etc/system/default directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name ui-prefs.conf in
# the $SPLUNK_HOME/etc/apps/<app_name>/local/ directory. Then add the specific
# settings that you want to customize to the local configuration file.
# For examples, see ui-prefs.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each .conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file takes precedence.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

[<stanza name>]
* The name of the xml view file

dispatch.earliest_time =
dispatch.latest_time =
```

首选项

```
display.prefs.autoOpenSearchAssistant = 0 | 1
display.prefs.timeline.height = <string>
display.prefs.timeline.minimized = 0 | 1
display.prefs.timeline.minimalMode = 0 | 1
display.prefs.aclFilter = [none|app|owner]
display.prefs.appFilter = <string>
display.prefs.listMode = [tiles|table]
display.prefs.searchContext = <string>
display.prefs.events.count = [10|20|50]
display.prefs.statistics.count = [10|20|50|100]
display.prefs.fieldCoverage = [0|.01|.50|.90|1]
display.prefs.enableMetaData = 0 | 1
display.prefs.showDataSummary = 0 | 1
display.prefs.customSampleRatio = <int>
display.prefs.showSPL = 0 | 1
display.prefs.livetail = 0 | 1

# Count per page for listing pages
countPerPage = [10|20|50]
```

显示格式选项

```
# General options
display.general.enablePreview = 0 | 1

# Event options
display.events.fields = <string>
display.events.type = [raw|list|table]
display.events.rowNumbers = 0 | 1
display.events.maxLines = [0|5|10|20|50|100|200]
display.events.raw.drilldown = [inner|outer|full|none]
display.events.list.drilldown = [inner|outer|full|none]
display.events.list.wrap = 0 | 1
display.events.table.drilldown = 0 | 1
display.events.table.wrap = 0 | 1

# Statistics options
```

```
display.statistics.rowNumbers = 0 | 1
display.statistics.wrap = 0 | 1
display.statistics.drilldown = [row|cell|none]

# Visualization options
display.visualizations.type = [charting|singlevalue]
display.visualizations.custom.type = <string>
display.visualizations.chartHeight = <int>
display.visualizations.charting.chart = [line|area|column|bar|pie|scatter|radialGauge|fillerGauge|markerGauge]
display.visualizations.charting.chart.style = [minimal|shiny]
display.visualizations.charting.legend.labelStyle.overflowMode = [ellipsisEnd|ellipsisMiddle|ellipsisStart]

# Patterns options
display.page.search.patterns.sensitivity = <float>

# Page options
display.page.search.mode = [fast|smart|verbose]
display.page.search.timeline.format = [hidden|compact|full]
display.page.search.timeline.scale = [linear|log]
display.page.search.showFields = 0 | 1
display.page.home.showGettingStarted = 0 | 1
display.page.search.searchHistoryTimeFilter = [0|@d|-7d@d|-30d@d]
display.page.search.searchHistoryCount = [10|20|50]
```

ui-prefs.conf.example

```
#   Version 8.2.0
#
# This file contains example of ui preferences for a view.
#
# To use one or more of these configurations, copy the configuration block into
# ui-prefs.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to
# enable configurations.
#
# To learn more about configuration files (including precedence) please see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# The following ui preferences will default timerange picker on the search page
# from All time to Today We will store this ui-prefs.conf in
# $SPLUNK_HOME/etc/apps/search/local/ to only update search view of search app.
[search]
dispatch.earliest_time = @d
dispatch.latest_time = now
```

ui-tour.conf

以下为 ui-tour.conf 的规范和示例文件。

ui-tour.conf.spec

```
#   Version 8.2.0
#
# This file contains the available product tours for Splunk onboarding.
#
# There is a default ui-tour.conf in $SPLUNK_HOME/etc/system/default.
# To create custom tours, place a ui-tour.conf in
# $SPLUNK_HOME/etc/system/local/. To create custom tours for an app, place
# ui-tour.conf in $SPLUNK_HOME/etc/apps/<app_name>/local/.
#
# To learn more about configuration files (including precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

```
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * This is not a typical conf file for configurations. It is used to set/create
#     tours to demonstrate product functionality to users.
#   * If an attribute is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.

[<stanza name>]
* The name of the UI tour.

useTour = <string>
* Used to redirect this tour to another when called by Splunk.
* Optional.

nextTour = <string>
* Determines what tour to start when the current tour is finished.
* Optional.

intro = <string>
* A custom string used in a modal to describe which tour is about to be taken.
* Optional.

type = image|interactive
* Determines the type of tour.
* Required.
* If set to "image", the tour is a simple image tour where the user clicks through
  a series of screenshots or images.
* If set to "interactive", the user participates in an interactive UI tour.

label = <string>
* The identifying name for the tour used in the tour creation app.
* Required only if the tour is being linked to another tour using the 'nextTour' setting.

tourPage = <string>
* The Splunk view the tour is associated with.
* Required only if the tour is being linked to another tour using the 'nextTour' setting.

managerPage = <boolean>
* Used to signifiy that the 'tourPage' is a manager page. This changes the URL of
  when the 'tourPage' is rendered from "/app/{app}/{view}" to "/manager/{app}/{view}".
* Optional

viewed = <boolean>
* Whether the tour has been viewed by a user.
* Set by Splunk.

skipText = <string>
* The string for the skip button.
* Optional.
* This setting applies to both interactive and image tours.
* Default: Skip tour

doneText = <string>
* The string for the button at the end of a tour.
* Optional.
* This setting applies to both interactive and image tours.
* Default: Try it now

doneURL = <string>
* A Splunk URL that redirects the user once the tour is over and they click a
  link or button to exit.
```

```
* Optional.
* Helpful to use with the 'doneText' setting to specify a starting location for the user
  after they take the tour.
* The Splunk link is formed after the localization portion of the full URL. For example, if the link
* is localhost:8000/en-US/app/search/reports, the doneURL will be "app/search/reports".

forceTour = <boolean>
* Used with auto tours to force users to take the tour and not be able to skip.
* Optional
```

针对基于图像的浏览

```
# You can list as many images with captions as you want. Each new image is created by
# incrementing the number.

imageName<int> = <string>
* The name of the image file.
* For example, 'example.png'.
* Required but optional only after the first is set.

imageCaption<int> = <string>
* The caption string for the corresponding image.
* Optional.

imgPath = <string>
* The subdirectory relative to Splunk's 'img' directory in which users put the images.
  This will be appended to the URL for image access and not make a server request within Splunk.
  Ex) If the user puts images in a subdirectory 'foo': imgPath = foo.
  Ex) If within an app, imgPath = foo will point to the app's img path of
      appserver/static/img/foo
* Required only if images are not in the main 'img' directory.

context = <system|<specific app name>>
* String consisting of either 'system' or the app name where the tour images are to be stored.
* Required.
* If set to "system", it reverts to Splunk's native img path.
```

针对交互式浏览

```
# You can list as many steps with captions as you want. Each new step is created by
# incrementing the number.

urlData = <string>
* The string of any querystring variables used with the 'tourPage' setting
  to create the full URL executing this tour.
* Optional.
* Don't add "?" to the beginning of this string.

stepText<int> = <string>
* The string used in a specified step to describe the UI being showcased.
* Required but optional only after the first is set.

stepElement<int> = <selector>
* The UI selector used for highlighting the DOM element for the corresponding step.
* Optional.

stepPosition<int> = <bottom|right|left|top>
* String that sets the position of the tooltip for the corresponding step.
* Optional.

stepClickEvent<int> = <click|mousedown|mouseup>
* Sets a specific click event for an element for the corresponding step.
* Optional.
```

```
stepClickElement<int> = <string>
* The UI selector used for a DOM element used in conjunction with `stepClickEvent<int>`.
* Optional.
```

ui-tour.conf.example

```
#   Version 8.2.0
#
# This file contains the tours available for Splunk Onboarding
#
# To update tours, copy the configuration block into
# ui-tour.conf in $SPLUNK_HOME/etc/system/local/. Restart the Splunk software to
# see the changes.
#
# To learn more about configuration files (including precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#

# Image Tour
[tour-name]
type = image
imageName1 = TourStep1.png
imageCaption1 = This is the first caption
imageName2 = TourStep2.png
imageCaption2 = This is the second caption
imgPath = /testtour
context = system
doneText = Continue to Tour Page
doneURL = app/toursapp/home

# Interactive Tour
[test-interactive-tour]
type = interactive
tourPage = reports
urlData = data=foo&moredata=bar
label = Interactive Tour Test
stepText1 = Welcome to this test tour
stepText2 = This is the first step in the tour
stepElement2 = .test-selector
stepText3 = This is the second step in the tour
stepElement3 = .test-selector
stepClickEvent3 = mousedown
stepClickElement3 = .test-click-element
forceTour = 1
```

user-prefs.conf

以下为 user-prefs.conf 的规范和示例文件。

user-prefs.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure on a per-user basis for use by the Splunk Web UI.
#
# There is a user-prefs.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name user-prefs.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see user-prefs.conf.example. You must restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# NOTES:
#
# Settings in this file are requested with user and application scope of the
# relevant user, and the user-prefs app.
#
# Additionally, settings by the same name which are available in the roles
# the user belongs to will be used at lower precedence.
#
# This means interactive setting of these values will cause the values to be
# updated in
# $SPLUNK_HOME/etc/users/<username>/user-prefs/local/user-prefs.conf where
# <username> is the username for the user altering their preferences.
#
# It also means that values in another app will never be used unless they
# are exported globally (to system scope) or to the user-prefs app.
#
# In practice, providing values in other apps isn't very interesting, since
# values from the authorize.conf file 'roles' settings are more typically sensible
# ways to defaults for values in user-prefs.
```

[general]

```
default_namespace = <app name>
* Specifies the app that the user will see initially on login to the
  Splunk Web User Interface.
* This uses the "short name" of the app, such as launcher, or search,
  which is synonymous with the app directory name.
* Default: launcher (via the default authorize.conf file)

tz = <timezone>
* Specifies the per-user timezone to use.
* If unset, the timezone of the Splunk Server or Search Head is used.
* Only canonical timezone names such as America/Los_Angeles should be
  used (for best results use the Splunk UI).
* No default.

lang = <string>
* Specifies the per-user language preference for non-web ui operations, where
  multiple tags are separated by commas.
* If unset, English "en-US" is used when required.
* Only tags used in the "Accept-Language" HTTP header are allowed, such as
  "en-US" or "fr-FR".
* Fuzzy matching is supported, where "en" will match "en-US".
* Optional quality settings are supported, such as "en-US,en;q=0.8,fr;q=0.6"
* No default.

install_source_checksum = <string>
* Records a checksum of the tarball from which a given set of private user
  configurations was installed.
* Analogous to <install_source_checksum> in the app.conf file.

search_syntax_highlighting = [light|dark|black-white]
* Highlights different parts of a search string with different colors.
* Dashboards ignore this setting.
* Default: light

search_use_advanced_editor = <boolean>
* Specifies whether the search bar is run using the advanced editor or in just plain text.
* If set to false, 'search_auto_format' and 'search_line_numbers' will be "false" and 'search_assistant' cannot be "compact".
* Default: true

search_assistant = [full|compact|none]
* Specifies the type of search assistant to use when constructing a search.
* Default: compact

search_auto_format = <boolean>
* Specifies if auto-format is enabled in the search input.
* Default: false

search_line_numbers = <boolean>
* Display the line numbers with the search.
* Default: false

dismissedInstrumentationOptInVersion = <integer>
* Set by splunk_instrumentation app to its current value of optInVersion when the opt-in modal is dismissed.

hideInstrumentationOptInModal = <boolean>
* Set to 1 by splunk_instrumentation app when the opt-in modal is dismissed.
```

[default]

```
# Additional settings exist, but are entirely UI managed.
<setting> = <value>
```

[general_default]

```
default_earliest_time = <string>
default_latest_time = <string>
* Sets the global default time range across all apps, users, and roles on the search page.
```

[role_<name>]

```
<name> = <value>
```

user-prefs.conf.example

```
#   Version 8.2.0
#
# This is an example user-prefs.conf.  Use this file to configure settings
# on a per-user basis for use by the Splunk Web UI.
#
# To use one or more of these configurations, copy the configuration block
# into user-prefs.conf in $SPLUNK_HOME/etc/system/local/. You must restart
# Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# Note: These are examples.  Replace the values with your own
# customizations.


# EXAMPLE: Setting the default timezone to GMT for all Power and User role
# members, and setting a different language preference for each.
```

```
[role_power]
tz = GMT
lang = en-US

[role_user]
tz = GMT
lang = fr-FR,fr-CA;q=0
```

user-seed.conf

以下为 user-seed.conf 的规范和示例文件。

user-seed.conf.spec

```
#   Version 8.2.0
#
# Specification for user-seed.conf.  Allows configuration of Splunk's
# initial username and password.  Currently, only one user can be configured
# with user-seed.conf.
#
# Specification for user-seed.conf.  Allows configuration of Splunk's initial username and password.
# Currently, only one user can be configured with user-seed.conf.
#
# To set the default username and password, place user-seed.conf in
# $SPLUNK_HOME/etc/system/local. You must restart Splunk to enable configurations.
# If the $SPLUNK_HOME/etc/passwd file is present, the settings in this file (user-seed.conf) are not used.
#
# Use HASHED_PASSWORD for a more secure installation. To hash a clear-text password,
# use the 'splunk hash-passwd' command then copy the output to this file.
#
# If a clear text password is set (not recommended) and last character is '\', it should
# be followed by a space for value to be read correctly. Password does not include extra
# space at the end, it is required to ignore the special meaning of backslash in conf file.
#
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
# To learn more about configuration files (including precedence) please see the documentation
# located at http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

[user_info]

```
* Default is Admin.

USERNAME = <string>
          * Username you want to associate with a password.
          * Default is Admin.

PASSWORD = <password>
          * Password you wish to set for that user.
          * Password must meet complexity requirements.

HASHED_PASSWORD = <password hash>
          * Password hash you wish to set for that user.
```

user-seed.conf.example

```
#   Version 8.2.0
#
# This is an example user-seed.conf.  Use this file to create an initial login.
#
# NOTE: When starting Splunk for first time, hash of password is stored in
# $SPLUNK_HOME/etc/system/local/user-seed.conf and password file is seeded
# with this hash. This file can also be used to set default username and
# password, if $SPLUNK_HOME/etc/passwd is not present. If the $SPLUNK_HOME/etc/passwd
# file is present, the settings in this file (user-seed.conf)
# are not used.
#
# To use this configuration, copy the configuration block into user-seed.conf
# in $SPLUNK_HOME/etc/system/local/. You must restart Splunk to enable configurations.
#
# To learn more about configuration files (including precedence) please see the documentation
# located at http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


[user_info]
USERNAME = admin
HASHED_PASSWORD = $6$TOs.jXjSRTCsfPsw$2St.t9lH9fpXd9mCEmCizWbb67gMFfBIJU37QF8wsHKSGud1QNMCuUdWkD8IFSgCZr5.W6zkjmNACGhGafQZj1
```

viewstates.conf

以下为 viewstates.conf 的规范和示例文件。

viewstates.conf.spec

```
#   Version 8.2.0
#
# This file explains how to format viewstates.
#
# To use this configuration, copy the configuration block into
# viewstates.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top
#    of the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, attributes are combined. In the case of
#    multiple definitions of the same attribute, the last definition in the
#    file wins.
#  * If an attribute is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.
```

[<view_name>:<viewstate_id>]

```
* Auto-generated persistence stanza label that corresponds to UI views
* The <view_name> is the URI name (not label) of the view to persist
* if <view_name> = "*", then this viewstate is considered to be 'global'
* The <viewstate_id> is the unique identifier assigned to this set of
  parameters
* <viewstate_id> = '_current' is a reserved name for normal view
  'sticky state'
* <viewstate_id> = '_empty' is a reserved name for no persistence,
  i.e., all defaults

<module_id>.<setting_name> = <string>
* The <module_id> is the runtime id of the UI module requesting persistence
* The <setting_name> is the setting designated by <module_id> to persist
```

viewstates.conf.example

```
#   Version 8.2.0
#
# This is an example viewstates.conf.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

[charting:g3b5fa7l]
ChartTypeFormatter_0_7_0.default = area
Count_0_6_0.count = 10
LegendFormatter_0_13_0.default = right
LineMarkerFormatter_0_10_0.default = false
NullValueFormatter_0_12_0.default = gaps

[*:g3jck9ey]
Count_0_7_1.count = 20
DataOverlay_0_12_0.dataOverlayMode = none
DataOverlay_1_13_0.dataOverlayMode = none
FieldPicker_0_6_1.fields = host sourcetype source date_hour date_mday date_minute date_month
FieldPicker_0_6_1.sidebarDisplay = True
FlashTimeline_0_5_0.annotationSearch = search index=twink
FlashTimeline_0_5_0.enableAnnotations = true
FlashTimeline_0_5_0.minimized = false
MaxLines_0_13_0.maxLines = 10
RowNumbers_0_12_0.displayRowNumbers = true
RowNumbers_1_11_0.displayRowNumbers = true
RowNumbers_2_12_0.displayRowNumbers = true
Segmentation_0_14_0.segmentation = full
SoftWrap_0_11_0.enable = true

[dashboard:_current]
TimeRangePicker_0_1_0.selected = All time
```

visualizations.conf

以下为 visualizations.conf 的规范和示例文件。

visualizations.conf.spec

```
#   Version 8.2.0
#
# This file contains definitions for visualizations an app makes available
# to the system. If you want your app to share visualizations with the system,
# include a visualizations.conf in $SPLUNK_HOME/etc/apps/<appname>/default
# Within the file, include one stanza for each visualization to be shared.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

#*******
# The following attribute/value pairs are possible for stanzas in visualizations.conf:
#*******
```

[<stanza name>]

```
* Create a unique stanza name for each visualization that matches the visualization's name.
* Follow the stanza name with any number of the following attribute/value
```

```
  pairs.
* If you don't specify an attribute, Splunk uses the default.

disabled = <boolean>
* Disable the visualization by setting to true.
* Optional.
* If set to true, the visualization is not available anywhere in Splunk
* Default: false.

allow_user_selection = <boolean>
* Whether the visualization is available for users to select.
* Optional.
* Default: true

label = <string>
* The human-readable label or title of the visualization.
* Required.
* The label is used in dropdowns and lists as the name of the visualization.
* Default: <app_name>.<viz_name>

description = <string>
* A short description that appears in the visualizations picker.
* Required.
* Default: ""

search_fragment = <string>
* An example part of a search that formats the data correctly for the visualization.
* Required.
* Typically the last pipe or pipes in a search query.
* Default: ""

default_height = <integer>
* The default height of the visualization, in pixels.
* Optional.
* Default: 250

default_width = <integer>
* The default width of the visualization, in pixels
* Optional.
* Default: 250

min_height = <integer>
* The minimum height the visualizations can be rendered in, in pixels.
* Optional.
* Default: 50

min_width = <integer>
* The minimum width the visualizations can be rendered in, in pixels.
* Optional.
* Default: 50

max_height = <integer>
* The maximum height the visualizations can be rendered in, in pixels.
* Optional.
* Default: unbounded

max_width = <integer>
* The maximum width the visualizations can be rendered in, in pixels.
* Optional.
* Default: unbounded.

trellis_default_height = <integer>
* The default height of the visualization if using trellis layout.
* Default: 400

trellis_min_widths = <string>
* The minimum width of a visualization if using trellis layout.
* Default: undefined
```

```
trellis_per_row = <string>
* The number of trellises per row.
* Default: undefined

# The following settings define data sources supported by the visualization and their initial fetch parameters for search
results data:

data_sources = <comma-separated list>
* A list of data source types supported by the visualization.
* The visualization system currently provides the following types of data sources:
* - primary: Main data source driving the visualization.
* - annotation: Additional data source for time series visualizations to show discrete event annotation on the time axis.
* Default: primary

data_sources.<data-source-type>.params.output_mode = [json_rows|json_cols|json]
* The data format that the visualization expects. Must be one of the following:
  - "json_rows": corresponds to SplunkVisualizationBase.ROW_MAJOR_OUTPUT_MODE
  - "json_cols": corresponds to SplunkVisualizationBase.COLUMN_MAJOR_OUTPUT_MODE
  - "json": corresponds to SplunkVisualizationBase.RAW_OUTPUT_MODE
* Optional.
* Requires the javascript implementation to supply initial data parameters.
* Default: undefined

data_sources.<data-source-type>.params.count = <integer>
* How many rows of results to request
* Optional.
* Default: 1000

data_sources.<data-source-type>.params.offset = <integer>
* The index of the first requested result row.
* Optional.
* Default: 0

data_sources.<data-source-type>.params.sort_key = <string>
* The field name to sort the results by.
* Optional.

data_sources.<data-source-type>.params.sort_direction = [asc|desc]
* The direction of the sort:
  - asc: Sort in ascending order
  - desc: Sort in descending order
* Optional.
* Default: desc

data_sources.<data-source-type>.params.search = <string>
* A post-processing search to apply to generate the results.
* Optional.
* There is no default.

data_sources.<data-source-type>.mapping_filter = <boolean>

data_sources.<data-source-type>.mapping_filter.center = <string>

data_sources.<data-source-type>.mapping_filter.zoom = <string>

supports_trellis = <boolean>
* Whether trellis layout is available for this visualization.
* Optional.
* Default: false

supports_drilldown = <boolean>
* Whether the visualization supports drilldown.
* Optional.
* A drilldown is a responsive actions triggered when users click on the visualization.
* Default: false

supports_export = <boolean>
* Whether the visualization supports being exported as a PDF.
* Optional.
* This setting has no effect in third-party visualizations.
* Default: false

# Internal settings for bundled visualizations. They are ignored for third party visualizations.
core.type = <string>
core.viz_type = <string>
core.charting_type = <string>
core.mapping_type = <string>
core.order = <int>
core.icon = <string>
core.preview_image = <string>
core.recommend_for = <string>
core.height_attribute = <string>
```

visualizations.conf.example

```
No example
```

web.conf

以下为 web.conf 的规范和示例文件。

web.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attributes and values you can use to configure
# the Splunk Web interface.
#
# There is a web.conf in $SPLUNK_HOME/etc/system/default/.  To set custom
# configurations, place a web.conf in $SPLUNK_HOME/etc/system/local/.  For
# examples, see web.conf.example.  You must restart Splunk software to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles


[settings]
* Set general Splunk Web configuration options under this stanza name.
* Follow this stanza name with any number of the following setting/value
  pairs.
* If you do not specify an entry for each setting, Splunk Web uses the
  default value.

startwebserver = [0 | 1]
* Set whether or not to start Splunk Web.
* 0 disables Splunk Web, 1 enables it.
* Default: 1

httpport = <positive integer>
* The TCP port on which Splunk Web listens for incoming connections.
* Must be present for Splunk Web to start.
* If omitted or 0 the server will NOT start an http listener.
* If using SSL, set to the HTTPS port number.
* Default: 8000

mgmtHostPort = <IP address:port>
* The IP address and host port of the splunkd process.
* Don't include "http[s]://" when specifying this setting. Only
  include the IP address and port.
* Default: 0.0.0.0:8089
```

```
appServerPorts = <positive integer>[, <positive integer>, <positive integer> ...]
* Port number(s) for the python-based application server to listen on.
  This port is bound only on the loopback interface -- it is not
  exposed to the network at large.
* Generally, you should only set one port number here. For most
  deployments a single application server won't be a performance
  bottleneck. However you can provide a comma-separated list of
  port numbers here and splunkd will start a load-balanced
  application server on each one.
* At one time, setting this to zero indicated that the web service
  should be run in a legacy mode as a separate service, but as of
  Splunk 8.0 this is no longer supported.
* Default: 8065

splunkdConnectionTimeout = <integer>
* The amount of time, in seconds, to wait before timing out when communicating with
  splunkd.
* Must be at least 30.
* Values smaller than 30 will be ignored, resulting in the use of the
  default value
* Default: 30

enableSplunkWebClientNetloc = <boolean>
* Control if the Splunk Web client can override the client network location.
* Default: false

enableSplunkWebSSL = <boolean>
* Toggle between http or https.
* Set to true to enable https and SSL.
* Default: false

privKeyPath = <path>
* The path to the file containing the web server SSL certificate private key.
* A relative path is interpreted relative to $SPLUNK_HOME and may not refer
  outside of $SPLUNK_HOME (e.g., no ../somewhere).
* You can also specify an absolute path to an external key.
* See also 'enableSplunkWebSSL' and 'serverCert'.
* No default.

serverCert = <path>
* Full path to the Privacy Enhanced Mail (PEM) format Splunk web server certificate file.
* The file may also contain root and intermediate certificates, if required.
  They should be listed sequentially in the order:
    [ Server SSL certificate ]
    [ One or more intermediate certificates, if required ]
    [ Root certificate, if required ]
* See also 'enableSplunkWebSSL' and 'privKeyPath'.
* Default: $SPLUNK_HOME/etc/auth/splunkweb/cert.pem

sslPassword = <password>
* Password that protects the private key specified by 'privKeyPath'.
* If encrypted private key is used, do not enable client-authentication
  on splunkd server. In [sslConfig] stanza of server.conf,
  'requireClientCert' must be 'false'.
* Optional.
* Default: The unencrypted private key.

caCertPath = <path>
* DEPRECATED.
* Use 'serverCert' instead.
* A relative path is interpreted relative to $SPLUNK_HOME and may not refer
  outside of $SPLUNK_HOME (e.g., no ../somewhere).
* No default.

requireClientCert = <boolean>
* Requires that any HTTPS client that connects to the Splunk Web HTTPS
  server has a certificate that was signed by the CA cert installed
  on this server.
```

```
* If "true", a client can connect ONLY if a certificate created by our
  certificate authority was used on that client.
* If "true", it is mandatory to configure splunkd with same root CA in server.conf.
  This is needed for internal communication between splunkd and splunkweb.
* Default: false

sslCommonNameToCheck = <commonName1>, <commonName2>, ...
* Checks the common name of the client's certificate against this list of names.
* 'requireClientCert' must be set to "true" for this setting to work.
* Optional.
* Default: empty string (No common name checking).

sslAltNameToCheck = <alternateName1>, <alternateName2>, ...
* If this value is set, and 'requireClientCert' is set to true,
  Splunk Web will verify certificates which have a so-called
  "Subject Alternate Name" that matches any of the alternate names in this list.
  * Subject Alternate Names are effectively extended descriptive
    fields in SSL certs beyond the commonName. A common practice for
    HTTPS certs is to use these values to store additional valid
    hostnames or domains where the cert should be considered valid.
* Accepts a comma-separated list of Subject Alternate Names to consider valid.
* Optional.
* Default: empty string (no alternate name checking).

serviceFormPostURL = http://docs.splunk.com/Documentation/Splunk
* DEPRECATED.
* This setting has been deprecated since Splunk Enterprise version 5.0.3.

userRegistrationURL = https://www.splunk.com/page/sign_up
updateCheckerBaseURL = http://quickdraw.Splunk.com/js/
docsCheckerBaseURL = http://quickdraw.splunk.com/help
* These are various Splunk.com urls that are configurable.
* Setting 'updateCheckerBaseURL' to 0 stops Splunk Web from pinging
  Splunk.com for new versions of Splunk software.

enable_insecure_login = <boolean>
* Whether or not the GET-based "/account/insecurelogin" REST endpoint is enabled.
* Provides an alternate GET-based authentication mechanism.
* If "true", the following url is available:
http://localhost:8000/en-US/account/insecurelogin?loginType=splunk&username=noc&password=XXXXXXX
* If "false", only the main /account/login endpoint is available
* Default: false

enable_secure_entity_move = <boolean>
* Whether or not you can perform an HTTP GET request on the "move" REST endpoint
  for any entity that has such an endpoint, to move that entity from one Splunk app
  to another.
* Entities are configurable components of the Splunk Web framework, such as views,
  styles, and drilldown actions. This is not an exhaustive list.
* If set to "true", you can perform only HTTP POST requests against the "move" endpoint
  for an entity.
  * For example, if you have an endpoint "/en_US/manager/launcher/data/ui/views/move",
    you can only perform an HTTP POST request to access that endpoint to move
    an entity from one app to another.
* If set to "false", you can perform both HTTP GET and POST requests against the
  "move" endpoint of an entity.
* Default: true

enable_insecure_pdfgen = <boolean>
* Whether or not the "/services/pdfgen/render" REST endpoint allows GET requests.
* If "true", allows PDFs to be generated using GET or POST requests.
* If "false", only allows PDFs to be generated using POST requests.
* Default: false

simple_error_page = <boolean>
* Whether or not to display a simplified error page for HTTP errors that only contains the error status.
* If set to "true", Splunk Web displays a simplified error page for errors (404, 500, etc.) that only contain the error status.
* If set to "false", Splunk Web displays a more verbose error page that contains the home link, message, a more_results_link,
crashes, referrer, debug output, and byline
```

```
* Default: false

login_content = <string>
* Lets you add custom content to the login page.
* Supports any text including HTML.
* No default.

sslVersions = <comma-separated list>
* A comma-separated list of SSL versions to support.
* The versions available are "ssl3", "tls1.0", "tls1.1", and "tls1.2"
* The special version "*" selects all supported versions. The version "tls"
  selects all versions tls1.0 or newer
* If you prefix a version with "-", it is removed from the list.
* SSLv2 is always disabled; "-ssl2" is accepted in the version list, but does nothing.
* When configured in FIPS mode, "ssl3" is always disabled regardless
  of this configuration.
* For the default, see $SPLUNK_HOME/etc/system/default/web.conf.

supportSSLV3Only = <boolean>
* This setting is DEPRECATED. SSLv2 is now always disabled.
  The exact set of SSL versions allowed is now configurable via the
  'sslVersions' setting above.

cipherSuite = <cipher suite string>
* If set, uses the specified cipher string for the HTTP server.
* If not set, uses the default cipher string provided by OpenSSL. This is
  used to ensure that the server does not accept connections using weak
  encryption protocols.
* Must specify 'dhFile' to enable any Diffie-Hellman ciphers.
* The default can vary. See the cipherSuite setting in
* $SPLUNK_HOME/etc/system/default/web.conf for the current default.

ecdhCurveName = <string>
* DEPRECATED.
* Use the 'ecdhCurves' setting instead.
* This setting specifies the Elliptic Curve Diffie-Hellman (ECDH) curve to
  use for ECDH key negotiation.
* Splunk only supports named curves that have been specified by their
  SHORT name.
* The list of valid named curves by their short and long names
  can be obtained by running this CLI command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Default: empty string.

ecdhCurves = <comma-separated list>
* A list of ECDH curves to use for ECDH key negotiation.
* The curves should be specified in the order of preference.
* The client sends these curves as a part of an SSL Client Hello.
* The server supports only the curves specified in the list.
* Splunk software only supports named curves that have been specified
  by their SHORT names.
* The list of valid named curves by their short and long names can be obtained
  by running this CLI command:
  $SPLUNK_HOME/bin/splunk cmd openssl ecparam -list_curves
* Example setting: "ecdhCurves = prime256v1,secp384r1,secp521r1"
* The default can vary. See the 'ecdhCurves' setting in
  $SPLUNK_HOME/etc/system/default/web.conf for the current default.

dhFile = <path>
* Full path to the Diffie-Hellman parameter file.
* Relative paths are interpreted as relative to $SPLUNK_HOME, and must
  not refer to a location outside of $SPLUNK_HOME.
* This file is required in order to enable any Diffie-Hellman ciphers.
* Default: not set.

root_endpoint = <URI_prefix_string>
* Defines the root URI path on which the appserver will listen
* For example, if you want to proxy the splunk UI at http://splunk:8000/splunkui,
  then set root_endpoint = /splunkui
```

```
* Default: /

static_endpoint = <URI_prefix_string>
* Path to static content.
* The path here is automatically appended to root_endpoint defined above
* Default: /static

static_dir = <relative_filesystem_path>
* The directory that holds the static content
* This can be an absolute URL if you want to put it elsewhere
* Default: share/splunk/search_mrsparkle/exposed

rss_endpoint = <URI_prefix_string>
* Path to static rss content
* The path here is automatically appended to what you defined in the
  'root_endpoint' setting
* Default: /rss

embed_uri = <URI>
* Optional URI scheme/host/port prefix for embedded content
* This presents an optional strategy for exposing embedded shared
  content that does not require authentication in a reverse proxy/single
  sign on environment.
* Default: empty string, resolves to the client
  window.location.protocol + "//" + window.location.host

embed_footer = <html_string>
* A block of HTML code that defines the footer for an embedded report.
* Any valid HTML code is acceptable.
* Default: "splunk>"

tools.staticdir.generate_indexes = [1 | 0]
* Whether or not the webserver serves a directory listing for static
  directories.
* Default: 0 (false)

template_dir = <relative_filesystem_path>
* The base path to the Mako templates.
* Default: "share/splunk/search_mrsparkle/templates"

module_dir = <relative_filesystem_path>
* The base path to Splunk Web module assets.
* Default: "share/splunk/search_mrsparkle/modules"

enable_gzip = <boolean>
* Whether or not the webserver applies gzip compression to responses.
* Default: true

use_future_expires = <boolean>
* Whether or not the Expires header of /static files is set to a far-future date
* Default: true

flash_major_version = <integer>
flash_minor_version = <integer>
flash_revision_version = <integer>
* Specifies the minimum Flash plugin version requirements
* Flash support, broken into three parts.
* We currently require a min baseline of Shockwave Flash 9.0 r124

override_JSON_MIME_type_with_text_plain = <boolean>
* Whether or not to override the MIME type for JSON data served up
  by Splunk Web endpoints with content-type="text/plain; charset=UTF-8"
* If "true", Splunk Web endpoints (other than proxy) that serve JSON data will
  serve as "text/plain; charset=UTF-8"
* If "false", Splunk Web endpoints that serve JSON data will serve as "application/json; charset=UTF-8"

enable_proxy_write = <boolean>
* Indicates if the /splunkd proxy endpoint allows POST operations.
* If "true", both GET and POST operations are proxied through to splunkd.
* If "false", only GET operations are proxied through to splunkd.
* Setting to "false" prevents many client-side packages (such as the
  Splunk JavaScript SDK) from working correctly.
* Default: true

js_logger_mode = [None | Firebug | Server]
* The JavaScript Logger mode.
* Available modes: None, Firebug, Server
* Mode None: Does not log anything.
* Mode Firebug: Use firebug by default if it exists, or defer to the older
  less promiscuous version of firebug lite.
* Mode Server: Log to a defined server endpoint.
* See js/logger.js Splunk.Logger.Mode for mode implementation details and if
  you would like to author your own.
* Default: None

js_logger_mode_server_end_point = <URI_relative_path>
* The server endpoint to post JavaScript log messages
* Used when js_logger_mode = Server
* Default: util/log/js

js_logger_mode_server_poll_buffer = <integer>
* The interval, in milliseconds, to check, post, and cleanse the JavaScript log buffer
* Default: 1000

js_logger_mode_server_max_buffer = <integer>
* The maximum size threshold, in megabytes, to post and cleanse the JavaScript log buffer
* Default: 100

ui_inactivity_timeout = <integer>
* The length of time lapsed, in minutes, for notification when
  there is no user interface clicking, mouseover, scrolling, or resizing.
* Notifies client side pollers to stop, resulting in sessions expiring at
  the 'tools.sessions.timeout' value.
* If less than 1, results in no timeout notification ever being triggered
  (Sessions stay alive for as long as the browser is open).
* Default: 60

js_no_cache = <boolean>
* DEPRECATED.
* Toggles the JavaScript cache control.
* Default: false

cacheBytesLimit = <integer>
* Splunkd can keep a small cache of static web assets in memory.
  When the total size of the objects in cache grows larger than this setting,
  in bytes, splunkd begins ageing entries out of the cache.
* If set to zero, disables the cache.
* Default: 4194304

cacheEntriesLimit = <integer>
* Splunkd can keep a small cache of static web assets in memory.
  When the number of the objects in cache grows larger than this,
  splunkd begins ageing entries out of the cache.
* If set to zero, disables the cache.
* Default: 16384

staticCompressionLevel = <integer>
* Splunkd can keep a small cache of static web assets in memory.
  Splunkd stores these assets in a compressed format, and the assets can
  usually be served directly to the web browser in compressed format.
* This level can be a number between 1 and 9.  Lower numbers use less
  CPU time to compress objects, but the resulting compressed objects
  will be larger.
* There is not much benefit to decreasing the value of this setting from
  its default. Not much CPU time is spent compressing the objects.
* Default: 9

enable_autocomplete_login = <boolean>
```

```
* Indicates if the main login page lets browsers autocomplete the username.
* If "true", browsers may display an autocomplete drop down in the username field.
* If "false", browsers may not show autocomplete drop down in the username field.
* Default: false

verifyCookiesWorkDuringLogin = <boolean>
* Normally, the login page makes an attempt to see if cookies work
  properly in the user's browser before allowing them to log in.
* If you set this to "false", this check is skipped.
* Do not set to "false" in normal operations.
* Default: true

minify_js = <boolean>
* Whether the static JavaScript files for modules are consolidated and minified.
* Setting this to "true" improves client-side performance by reducing the number of HTTP
  requests and the size of HTTP responses.

minify_css = <boolean>
* Indicates whether the static CSS files for modules are consolidated and
  minified
* Setting this to "true" improves client-side performance by reducing the number of HTTP
  requests and the size of HTTP responses.
* Due to browser limitations, disabling this when using Internet Explorer
  version 9 and earlier might result in display problems.

trap_module_exceptions = <boolean>
* Whether or not the JavaScript for individual modules is wrapped in a try/catch
* If "true", syntax errors in individual modules do not cause the UI to
  hang, other than when using the module in question.
* Set to "false" when developing apps.

enable_pivot_adhoc_acceleration = <boolean>
* DEPRECATED in version 6.1 and later, use 'pivot_adhoc_acceleration_mode'
  instead
* Whether or not the pivot interface uses its own ad-hoc acceleration
  when a data model is not accelerated.
* If "true", the pivot interface uses ad-hoc acceleration to make reporting
  in pivot faster and more responsive.
* In situations where data is not stored in time order, or where the majority
  of events are far in the past, disabling this behavior can improve the
  pivot experience.

pivot_adhoc_acceleration_mode = [Elastic | AllTime | None]
* Specifies the type of ad-hoc acceleration used by the pivot interface when a
  data model is not accelerated.
* If "Elastic", the pivot interface only accelerates the time range
  specified for reporting, and dynamically adjusts when this time range
  is changed.
* If "AllTime", the pivot interface accelerates the relevant data over all
  time. This makes the interface more responsive to time-range changes
  but places a larger load on system resources.
* If "None", the pivot interface does not use any acceleration. This means
  any change to the report requires restarting the search.
* Default: Elastic

jschart_test_mode = <boolean>
* Whether or not the JSChart module runs in Test Mode.
* If "true", JSChart module attaches HTML classes to chart elements for
  introspection.
* This negatively impacts performance and should be disabled unless you
  are actively using JSChart Test Mode.

#
# To avoid browser performance impacts, the JSChart library limits
# the amount of data rendered in an individual chart.

jschart_truncation_limit = <integer>
* Cross-broswer truncation limit.
* If set, takes precedence over the browser-specific limits below
```

```
jschart_truncation_limit.chrome = <integer>
* Chart truncation limit.
* For Chrome only.
* Default: 50000

jschart_truncation_limit.firefox = <integer>
* Chart truncation limit.
* For Firefox only.
* Default: 50000

jschart_truncation_limit.safari = <integer>
* Chart truncation limit.
* For Safari only.
* Default: 50000

jschart_truncation_limit.ie11 = <integer>
* Chart truncation limit.
* For Internet Explorer version 11 only
* Default: 50000

jschart_series_limit = <integer>
* Chart series limit for all browsers.
* Default: 100

jschart_results_limit = <integer>
* DEPRECATED.
* Use 'data_sources.primary.params.count' in visualizations.conf instead.
* Chart results per series limit for all browsers.
* Overrides the results per series limit for individual visualizations.
* Default: 10000

choropleth_shape_limit = <integer>
* Choropleth map shape limit for all browsers.
* Default: 10000

dashboard_html_allow_inline_styles = <boolean>
* Whether or not to allow style attributes from inline HTML elements in dashboards.
* If "false", style attributes from inline HTML elements in dashboards will be removed
  to prevent potential attacks.
* Default: true

dashboard_html_allow_embeddable_content = <boolean>
* Whether or not to allow <embed> and <iframe> HTML elements in dashboards.
* If set to "true", <embed> and <iframe> HTML elements in dashboards will not be removed
  and can lead to a potential security risk.
* If set to the default value of "false", <embed> and <iframe> HTML elements will be stripped
  from the dashboard HTML.
* Default: false

dashboard_html_wrap_embed = <boolean>
* Whether or not to wrap <embed> HTML elements in dashboards with an <iframe>.
* If set to "false", <embed> HTML elements in dashboards will not be wrapped, leading to
  a potential security risk.
* If set to "true", <embed> HTML elements will be wrapped by an <iframe sandbox> element to help
  mitigate potential security risks.
* Default: true

dashboard_html_allow_iframes = <boolean>
* Whether or not to allow iframes from HTML elements in dashboards.
* If "false", iframes from HTML elements in dashboards will be removed to prevent
  potential attacks.
* Default: true

dashboard_html_allowed_domains = <string> [, <string>]
* A comma-separated list of allowed domains for inline iframe element
  source ('<iframe src="<URL>">') attributes in dashboards.
* If the domain for an <iframe> src attribute is not an allowed
  domain, the Simple XML dashboard adds the 'sandbox' attribute to
  the <iframe>, which further restricts the content within the <iframe>
  by treating it as coming from a unique origin. Simple XML dashboards
  will allow <iframe> src attributes by default if the src is the same
  hostname and port number as the Splunk Web server's hostname and port number.
* You can specify these domains as a hostname or an IPV4 address or an IPV6 address.
* You can configure a hostname as a full name or with a wildcard
  to allow for any subdomains. For example, *.example.com would
  allow for any subdomain of example.com as well as example.com itself.
* You can specify an IPV4 address as an exact address or:
  * You can use an asterisk to specify a wildcard (Example: 192.168.1.*).
    Asterisks allow for any address within that byte segment.
  * You can use a dash to specify a range of addresses (Example: 192.168.1.1-99).
    Dashes will only match IP addresses within that range.
* You can specify an IPV6 address either as an exact address or with
  a subnet mask. If you specify a subnet mask, any IPV6 address within
  the subnet will be an allowed domain.
* You can specify a port number for any of the domains. If you do, the '<iframe src>'
  must match the port number as well.
* Additional configuration examples:
  * Hostname: docs.splunk.com, *.splunk.com
  * IPV4: 127.0.0.1, 127.0.0.*, 127.0-10.0.*, 127.0.0.1:8000
  * IPV6: ::1, [::1]:8000, 2001:db8:abcd:12::, 2001:db8::/32
* Default: not set

splunk_dashboard_app_name = <string>
* Please do not change.
* Set the name for the Splunk Dashboard App.
* Default: splunk-dashboard-studio

enable_splunk_dashboard_app_feature = <boolean>
* Whether or not splunk dashboard app integrated features are available.
* If set to "true", then splunk dashboard app integrated features will be available.
* Default: true

max_view_cache_size = <integer>
* The maximum number of views to cache in the appserver.
* Default: 1000

pdfgen_is_available = [0 | 1]
* Specifies whether Integrated PDF Generation is available on this search
  head.
* This is used to bypass an extra call to splunkd.
* Default (on platforms where node is supported): 1
* Default (on platforms where node is not supported): 0

version_label_format = <printf_string>
* Internal configuration.
* Overrides the version reported by the UI to *.splunk.com resources
* Default: %s

auto_refresh_views = [0 | 1]
* Specifies whether the following actions cause the appserver to ask splunkd
  to reload views from disk.
  * Logging in through Splunk Web
  * Switching apps
  * Clicking the Splunk logo
* Default: 0

#
# Splunk bar options
#
# Internal config. May change without notice.
# Only takes effect if 'instanceType' is 'cloud'.
#

showProductMenu = <boolean>
* Used to indicate visibility of product menu.
* Default: False.
```

```
productMenuUriPrefix = <string>
* The domain product menu links to.
* Required if 'showProductMenu' is set to "true".

productMenuLabel = <string>
* Used to change the text label for product menu.
* Default: 'My Splunk'

showUserMenuProfile = <boolean>
* Used to indicate visibility of 'Profile' link within user menu.
* Default: false


#
# Header options
#
x_frame_options_sameorigin = <boolean>
* adds a X-Frame-Options header set to "SAMEORIGIN" to every response served
* by cherrypy
* Default: true

#
# Single Sign On (SSO)
#

remoteUser = <http_header_string>
* Remote user HTTP header sent by the authenticating proxy server.
* This header should be set to the authenticated user.
* CAUTION: There is a potential security concern regarding the
  treatment of HTTP headers.
* Your proxy provides the selected username as an HTTP header as specified
  above.
* If the browser or other HTTP agent were to specify the value of this
  header, probably any proxy would overwrite it, or in the case that the
  username cannot be determined, refuse to pass along the request or set
  it blank.
* However, Splunk Web (specifically, cherrypy) normalizes headers containing
  the dash and the underscore to the same value. For example, USER-NAME and
  USER_NAME are treated as the same in Splunk Web.
* This means that if the browser provides REMOTE-USER and Splunk Web accepts
  REMOTE_USER, theoretically the browser could dictate the username.
* In practice, however, the proxy adds its headers last, which causes them
  to take precedence, making the problem moot.
* See also the 'remoteUserMatchExact' setting which can enforce more exact
  header matching.
* Default: 'REMOTE_USER'

remoteGroups = <http_header_string>
* Remote groups HTTP header name sent by the authenticating proxy server.
* This value is used by Splunk Web to match against the header name.
* The header value format should be set to comma-separated groups that
  the user belongs to.
* Example of header value: Products,Engineering,Quality Assurance
* No default.

remoteGroupsQuoted = <boolean>
* Whether or not the group header value can be comma-separated quoted entries.
* This setting is considered only when 'remoteGroups' is set.
* If "true", the group header value can be comma-separated quoted entries.
* NOTE: Entries themselves can contain commas.
* Example of header value with quoted entries:
  "Products","North America, Engineering","Quality Assurance"
* Default: false (group entries should be without quotes.)

remoteUserMatchExact = [0 | 1]
* Whether or not to consider dashes and underscores in a remoteUser header
  to be distinct.
* When set to "1", considers dashes and underscores distinct (so
  "Remote-User" and "Remote_User" are considered different headers.)
```

```
* When set to 0, dashes and underscores are not considered to be distinct,
  to retain compatibility with older versions of Splunk software.
* Set to 1 when you set up SSO
* Default: 0

remoteGroupsMatchExact = [0 | 1]
* Whether or not to consider dashes and underscores in a remoteGroup header
  to be distinct.
* When set to 1, considers dashes and underscores distinct (so
  "Remote-Groups" and "Remote_Groups" are considered different headers)
* When set to 0, dashes and underscores are not considered to be distinct,
  to retain compatibility with older versions of Splunk software.
* Set to 1 when you set up SSO
* Default: 0

SSOMode = [permissive | strict]
* Whether SSO behaves in either permissive or strict mode.
* When set to "permissive": Requests to Splunk Web that originate from an
  untrusted IP address are redirected to a login page where they can log into
  Splunk Web without using SSO.
* When set to "strict": All requests to Splunk Web will be restricted to those
  originating from a trusted IP except those to endpoints that do not require
  authentication.
* Default: strict

trustedIP = <ip_addresses>
* IP addresses of the authenticating proxy (trusted IP).
* Splunk Web verifies it is receiving data from the proxy host for all
  SSO requests.
* Set to a valid IP address to enable SSO.
* This setting can accept a list of IPs or networks, using the same format
  as the 'acceptFrom' setting.
* Default: not set; the normal value is the loopback address (127.0.0.1).

allowSsoWithoutChangingServerConf = [0 | 1]
* Whether or not to allow SSO without setting the 'trustedIP' setting in
  server.conf as well as in web.conf.
* If set to 1, enables web-based SSO without a 'trustedIP' setting configured
  in server.conf.
* Default: 0

testing_endpoint = <relative_uri_path>
* The root URI path on which to serve Splunk Web unit and
  integration testing resources.
* NOTE: This is a development only setting, do not use in normal operations.
* Default: /testing

testing_dir = <relative_file_path>
* The path relative to $SPLUNK_HOME that contains the testing
  files to be served at endpoint defined by 'testing_endpoint'.
* NOTE: This is a development only setting, do not use in normal operations.
* Default: share/splunk/testing

ssoAuthFailureRedirect = <scheme>://<URL>
* The redirect URL to use if SSO authentication fails.
* Examples:
  * http://www.example.com
  * https://www.example.com
* Default: empty string; Splunk Web shows the default unauthorized error
  page if SSO authentication fails.

# Results export server config

export_timeout = <integer>
* When exporting results, the number of seconds the server waits before
  closing the connection with splunkd.
* If you do not set a value for export_timeout, Splunk Web uses the value
  for the 'splunkdConnectionTimeout' setting.
* Set 'export_timeout' to a value greater than 30 in normal operations.
* No default.

#
# cherrypy HTTP server config
#

server.thread_pool = <integer>
* Determines the minimum number of threads the appserver is allowed to maintain.
* The default value of this setting provides acceptable performance for most use
  cases.
* If you are experiencing issues with UI latency, you can increase the value
  based on need, to a maximum value of 200.
* Values that exceed 200 can cause memory spikes.
* Default: 50

server.socket_host = <ip_address>
* Host values may be any IPv4 or IPv6 address, or any valid hostname.
* The string 'localhost' is a synonym for '127.0.0.1' (or '::1', if your
  hosts file prefers IPv6).
* The string '0.0.0.0' is a special IPv4 entry meaning "any active interface"
  (INADDR_ANY), and "::" is the similar IN6ADDR_ANY for IPv6.
* Default (if 'listenOnIPV6' is set to "no": 0.0.0.0
* Default (otherwise): "::"

server.socket_timeout = <integer>
* The timeout, in seconds, for accepted connections between the browser and
  Splunk Web
* Default: 10

listenOnIPv6 = <no | yes | only>
* By default, Splunk Web listens for incoming connections using
  IPv4 only.
* To enable IPv6 support in splunkweb, set this to "yes". Splunk Web
  simultaneously listens for connections on both IPv4 and IPv6 protocols.
* To disable IPv4 entirely, set to "only", which causes SPlunk Web
  to exclusively accept connections over IPv6.
* To listen on an IPV6 address, also set 'server.socket_host' to "::".

max_upload_size = <integer>
* The hard maximum limit, in megabytes, of uploaded files.
* Default: 500

log.access_file = <filename>
* The HTTP access log filename.
* This file is written in the default $SPLUNK_HOME/var/log directory.
* Default: web_access.log

log.access_maxsize = <integer>
* The maximum size, in bytes, that the web_access.log file can be.
* Comment out or set to 0 for unlimited file size.
* Splunk Web rotates the file to web_access.log.0 after the 'log.access_maxsize' is reached.
* See the 'log.access_maxfiles' setting to limit the number of backup files
  created.
* Default: 0 (unlimited size).

log.access_maxfiles = <integer>
* The maximum number of backup files to keep after the web_access.log
  file has reached its maximum size.
* CAUTION: Setting this to very high numbers (for example, 10000) can affect
  performance during log rotation.
* Default (if 'access_maxsize' is set): 5

log.error_maxsize = <integer>
* The maximum size, in bytes, the web_service.log can be.
* Comment out or set to 0 for unlimited file size.
* Splunk Web rotates the file to web_service.log.0 after the
  max file size is reached.
* See 'log.error_maxfiles' to limit the number of backup files created.
* Default: 0 (unlimited file size).
```

```
log.error_maxfiles = <integer>
* The maximum number of backup files to keep after the web_service.log
  file has reached its maximum size.
* CAUTION: Setting this to very high numbers (for example, 10000) can affect
  performance during log rotations
* Default (if 'access_maxsize' is set): 5

log.screen = <boolean>
* Whether or not runtime output is displayed inside an interactive TTY.
* Default: true

request.show_tracebacks = <boolean>
* Whether or not an exception traceback is displayed to the user on fatal
  exceptions.
* Default: true

engine.autoreload.on = <boolean>
* Whether or not the appserver will auto-restart if it detects a python file
  has changed.
* Default: false

tools.sessions.on = true
* Whether or not user session support is enabled.
* Always set this to true.

tools.sessions.timeout = <integer>
* The number of minutes of inactivity before a user session is
  expired.
* The countdown for this setting effectively resets every minute through
  browser activity until the 'ui_inactivity_timeout' setting is reached.
* Use a value of 2 or higher, as a value of 1 causes a race condition with
  the browser refresh, producing unpredictable behavior.
* Low values are not useful except for testing.
* Default: 60

tools.sessions.restart_persist = <boolean>
* Whether or not the session cookie is deleted from the browser when the
  browser quits.
* If set to "false", then the session cookie is deleted from the browser
  upon the browser quitting.
* If set to "true", then sessions persist across browser restarts, assuming
  the 'tools.sessions.timeout' has not been reached.
* Default: true

tools.sessions.httponly = <boolean>
* Whether or not the session cookie is available to running JavaScript scripts.
* If set to "true", the session cookie is not available to running JavaScript
  scripts. This improves session security.
* If set to "false", the session cookie is available to running JavaScript
  scripts.
* Default: true

tools.sessions.secure = <boolean>
* Whether or not the browser must transmit session cookies over an HTTPS
  connection when Splunk Web is configured to serve requests using HTTPS
  (the 'enableSplunkWebSSL' setting is "true".)
* If set to "true" and 'enableSplunkWebSSL' is also "true", then the
  browser must transmit the session cookie over HTTPS connections.
  This improves session security.
* See the 'enableSplunkWebSSL' setting for details on configuring HTTPS
  session support.
* Default: true

tools.sessions.forceSecure = <boolean>
* Whether or not the secure bit of a session cookie that has been sent
  over HTTPS is set.
* If a client connects to a proxy server over HTTPS, and the back end
  connects to Splunk over HTTP, then setting this to "true" forces the
  session cookie being sent back to the client over HTTPS to have the
  secure bit set.
* Default: false

response.timeout = <integer>
* The timeout, in seconds, to wait for the server to complete a
  response.
* Some requests, such as uploading large files, can take a long time.
* Default: 7200 (2 hours).

tools.sessions.storage_type = [file]
tools.sessions.storage_path = <filepath>
* Specifies the session information storage mechanisms.
* Set 'tools.sessions.storage_type' and 'tools.sessions.storage_path' to
  use RAM based sessions instead.
* Use an absolute path to store sessions outside of $SPLUNK_HOME.
* Default: storage_type=file, storage_path=var/run/splunk

tools.decode.on = <boolean>
* Whether or not all strings that come into CherryPy controller methods are
  decoded as unicode (assumes UTF-8 encoding).
* CAUTION: Setting this to false will likely break the application, as
  all incoming strings are assumed to be unicode.
* Default: true

tools.encode.on = <boolean>
* Whether or not to encode all controller method response strings into
  UTF-8 str objects in Python.
* CAUTION: Disabling this will likely cause high byte character encoding to
  fail.
* Default: true

tools.encode.encoding = <codec>
* Forces all outgoing characters to be encoded into UTF-8.
* This setting only takes effect when 'tools.encode.on' is set to "true".
* By setting this to "utf-8", CherryPy default behavior of observing the
  Accept-Charset header is overwritten and forces utf-8 output.
* Only change this if you know a particular browser installation must
  receive some other character encoding (Latin-1 iso-8859-1, etc)
* CAUTION: Change this setting at your own risk.
* Default: utf-8

tools.encode.text_only = <boolean>
# Controls CherryPy's ability to encode content type. If set to True, CherryPy will only encode
# text (text/*) content. As of the Python 3 conversion we are defaulting to False as the current
# controller responses are in Unicode.
# WARNING: Change this at your own risk.
* Default: False

tools.proxy.on = <boolean>
* Whether or not the Splunk platform instance is behind a reverse proxy server.
* If set to "true", the instance assumes that it is behind a reverse proxy and
  uses HTTP header information from the proxy to log access requests, secure
  its cookies properly, and generate valid URLs for redirect responses.
* All of the instance's HTTP services will use information from
  "X-Forwarded-*", "Front-End-Https", and "X-Url-Scheme" headers, where
  available, to override what it receives from proxied requests.
* If you set this to "true", you must also set 'tools.proxy.base' to a valid
  host name and network port.
* If set to "false", the instance relies on its own internal HTTP server
  settings and the immediate client's HTTP headers for the information needed
  for access request logging, cookie securing, and redirect URL generation.
* Default: false

tools.proxy.base = <scheme>://<URL>
* The proxy base URL in Splunk Web.
* Default: empty string

pid_path = <filepath>
```

```
* Specifies the path to the Process IDentification (pid) number file.
* Must be set to "var/run/splunk/splunkweb.pid".
* CAUTION: Do not change this parameter.

enabled_decomposers = <intention> [, <intention>]...
* Added in Splunk 4.2 as a short term workaround measure for apps which
  happen to still require search decomposition, which is deprecated
  with 4.2.
* Search decomposition will be entirely removed in a future release.
* A comma-separated list of allowed intentions.
* Modifies search decomposition, which is a Splunk Web internal behavior.
* Can be controlled on a per-app basis.
* If set to an empty string, no search decomposition occurs, which causes
  some usability problems with Report Builder.
* The current possible values are: addcommand, stats, addterm, addtermgt,
  addtermlt, setfields, excludefields, audit, sort, plot
* Default: "plot", leaving only the plot intention enabled.

simple_xml_perf_debug = <boolean>
* Whether or not Simple XML dashboards log performance metrics to the
  browser console.
* If set to "true", Simple XML dashboards log some performance metrics to
  the browser console.
* Default: false

job_min_polling_interval = <integer>
* The minimum polling interval, in milliseconds, for search jobs.
* This is the intial wait time for fetching results.
* The poll period increases gradually from the minimum interval
  to the maximum interval when search is in a queued or parsing
  state (and not a running state) for some time.
* Set this value between 100 and 'job_max_polling_interval' milliseconds.
* Default: 100

job_max_polling_interval = <integer>
* The maximum polling interval, in milliseconds, for search jobs.
* This is the maximum wait time for fetching results.
* In normal operations, set to 3000.
* Default: 1000

acceptFrom = <network_acl> ...

* Lists a set of networks or addresses from which to accept connections.
* Separate multiple rules with commas or spaces.
* Each rule can be in one of the following formats:
    1. A single IPv4 or IPv6 address (examples: "10.1.2.3", "fe80::4a3")
    2. A Classless Inter-Domain Routing (CIDR) block of addresses
       (examples: "10/8", "192.168.1/24", "fe80:1234/32")
    3. A DNS name, possibly with a "*" used as a wildcard
       (examples: "myhost.example.com", "*.splunk.com")
    4. "*", which matches anything
* You can also prefix an entry with '!' to cause the rule to reject the
  connection. The input applies rules in order, and uses the first one that
  matches.
  For example, "!10.1/16, *" allows connections from everywhere except
  the 10.1.*.* network.
* Default: "*" (accept from anywhere)

maxThreads = <integer>
* The number of threads that can be used for active HTTP transactions.
* This value can be limited to constrain resource usage.
* If set to 0, a limit is automatically picked based on
  estimated server capacity.
* If set to a negative number, no limits are enforced.
* Default: 0

maxSockets = <integer>
* The number of simultaneous HTTP connections that Splunk Web can accept.
* This value can be limited to constrain resource usage.
* If set to 0, a limit is automatically picked based on estimated
  server capacity.
* If set to a negative number, no limits are enforced.
* Default: 0

keepAliveIdleTimeout = <integer>
* How long, in seconds, that the Splunk Web HTTP server lets a keep-alive
  connection remain idle before forcibly disconnecting it.
* If this number is less than 7200, it will be set to 7200.
* Default: 7200

busyKeepAliveIdleTimeout = <integer>
* How long, in seconds, that the Splunk Web HTTP server lets a keep-alive
  connection remain idle while in a busy state before forcibly
  disconnecting it.
* CAUTION: Too large a value that can result in file descriptor exhaustion
  due to idling connections.
* If this number is less than 12, it will be set to 12.
* Default: 12

forceHttp10 = auto|never|always
* How the HTTP server deals with HTTP/1.0 support for incoming
  clients.
* When set to "always", the REST HTTP server does not use some
  HTTP 1.1 features such as persistent connections or chunked
  transfer encoding.
* When set to "auto", it limits HTTP 1.1 features only if the
  client sent no User-Agent header, or if the user agent is known
  to have bugs in its HTTP/1.1 support.
* When set to "never", it always allows HTTP 1.1, even to
  clients it suspects might be buggy.
* Default: auto

crossOriginSharingPolicy = <origin_acl> ...
* A list of HTTP Origins for which to return Access-Control-Allow-*
  (CORS) headers.
* These headers tell browsers that Splunk Web trusts web applications
  at those sites to make requests to the REST interface.
* The origin is passed as a URL without a path component (for example
  "https://app.example.com:8000")
* This setting can take a list of acceptable origins, separated
  by spaces and/or commas
* Each origin can also contain wildcards for any part. Examples:
  *://app.example.com:* (either HTTP or HTTPS on any port)
  https://*.example.com (any host under example.com, including example.com itself)
* An address can be prefixed with a '!' to negate the match, with
  the first matching origin taking precedence. For example,
  "!*://evil.example.com:* *://*.example.com:*" to not avoid
  matching one host in a domain.
* "*" can also be used to match all origins.
* Default: empty string

crossOriginSharingHeaders = <string>
* A list of the HTTP headers to which splunkd sets
  "Access-Control-Allow-Headers" when replying to
  Cross-Origin Resource Sharing (CORS) preflight requests.
* The "Access-Control-Allow-Headers" header is used in response to
  a CORS preflight request to tell browsers which HTTP headers can be
  used during the actual request.
* A CORS preflight request is a CORS request that checks to see if
  the CORS protocol is understood and a server is aware of using
  specific methods and headers.
* This setting can take a list of acceptable HTTP headers, separated
  by commas.
* A single "*" can also be used to match all headers.
* Default: Empty string.

allowSslCompression = <boolean>
* Whether or not the server lets clients negotiate SSL-layer data
```

```
  compression.
* If set to "true", the server lets clients negotiate SSL-layer
  data compression.
* The HTTP layer has its own compression layer which is usually sufficient.
* Default: false

allowSslRenegotiation = <boolean>
* Whether or not the server lets clients renegotiate SSL connections.
* In the SSL protocol, a client may request renegotiation of the connection
  settings from time to time.
* Setting this to "false" causes the server to reject all renegotiation
  attempts, breaking the connection.
* This limits the amount of CPU a single TCP connection can use, but it
  can cause connectivity problems especially for long-lived connections.
* Default: true

sendStrictTransportSecurityHeader = <boolean>
* Whether or not the REST interface sends a "Strict-Transport-Security"
  header with all responses to requests made over SSL.
* If set to "true", the REST interface sends a "Strict-Transport-Security"
  header with all responses to requests made over SSL.
* This can help avoid a client being tricked later by a Man-In-The-Middle
  attack to accept a non-SSL request.
* This requires a commitment that no non-SSL web hosts will ever be
  run on this hostname on any port. For example, if splunkweb is in default
  non-SSL mode this can break the ability of browser to connect to it.
* Enable this setting with caution.
* Default: false

includeSubDomains = <boolean>
* Whether or not the REST interface includes the "includeSubDomains"
  directive in the "Strict-Transport-Security" header with all responses
  to requests made over SSL.
* If set to "true", all subdomains of the current domain name will be
  enforced with the same HTTP Strict-Transport-Security (HSTS) policy.
* Can only be enabled if 'sendStrictTransportSecurityHeader' is set
  to "true".
* Enable this setting with caution. Enabling 'includeSubDomains' can have
  consquences by blocking access to subdomains that can only be served
  over HTTP.
* Default: false

preload = <boolean>
* Whether or not the REST interface includes the "preload" directive in the
  "Strict-Transport-Security" header with all responses to requests made
  over SSL.
* If set to "true", domains can be loaded on the HSTS preload list service
  that the Chromium project maintains for Google Chrome and various other
  browsers.
* Can only be enabled if 'sendStrictTransportSecurityHeader' is set
  to "true".
* Enable this setting with caution. Enabling 'preload' can have
  consequences by preventing users from accessing your domain and
  subdomains in the case of switching back to HTTP.
* Default: false

dedicatedIoThreads = <integer>
* The number of dedicated threads to use for HTTP input/output operations.
* If set to zero, HTTP I/O is performed in the same thread
  that accepted the TCP connection.
* If set set to a non-zero value, separate threads run
  to handle the HTTP I/O, including SSL encryption.
* Typically this does not need to be changed.  For most usage
  scenarios using the same the thread offers the best performance.
* Default: 0

replyHeader.<name> = <string>
* Adds a static header to all HTTP responses that this server generates.
* For example, "replyHeader.My-Header = value" causes Splunk Web to include
```

```
  the response header "My-Header: value" in the reply to every HTTP request
  to it.
* No default.

termsOfServiceDirectory = <directory>
* The directory to look in for a "Terms of Service" document that each
  user must accept before logging into Splunk Web.
  * Inside the directory the TOS should have a filename in the format
    "<number>.html"
  * <number> is in the range 1 to 18446744073709551615.
  * The active TOS is the filename with the larger number. For example, if
    there are two files in the directory named "123.html" and "456.html", then
    456 will be the active TOS version.
  * If a user has not accepted the current version of the TOS, they must
    accept it the next time they try to log in. The acceptance times will be recorded inside a "tos.conf" file inside an app
called "tos".
  * If the "tos" app does not exist, you must create it for acceptance
    times to be recorded.
  * The TOS file can either be a full HTML document or plain text, but it must
    have the ".html" suffix.
  * You do not need to restart Splunk Enterprise when adding files to the
    TOS directory.
* Default: empty string (no TOS)

appServerProcessShutdownTimeout = <nonnegative integer>[smhd]
* The amount of time splunkd waits for a Python-based application server
  process to handle outstanding or existing requests.
* If a Python-based application server process "outlives" this timeout,
  splunkd forcibly terminates the process.
* Default: '30s' (30 seconds).

appServerProcessLogStderr = <boolean>
* If set to true, messages written to the standard error stream by the
  Python-based application server processes will be logged to splunkd.log
  under the "UiAppServer" channel.
* This can be useful when debugging issues when the appserver process
  fails to start
* However, some appserver code may print sensitive information such as
  session ID strings to standard error so this defaults to disabled.
* Default: false

enableWebDebug = <boolean>
* Whether or not the debug REST endpoints are accessible, for example.,
  /debug/**splat.
* Default: false

allowableTemplatePaths =  <directory> [, <directory>]...
* A comma-separated list of template paths that might be added to
  the template lookup allow list.
* Paths are relative to $SPLUNK_HOME.
* Default: empty string

enable_risky_command_check = <boolean>
* Whether or not checks for data-exfiltrating search commands are enabled.
* default true

enableSearchJobXslt = <boolean>
* Whether or not the search job request accepts XML stylesheet language (XSL)
  as input to format search results.
* If set to "true", the search job request accepts XSL as input
  to format search results.
* If set to "false", the search job request does not accept XSL as input
  to format search results.
* Default: true

customFavicon = <pathToMyFile, myApp:pathToMyFile, or blank for default>
* Customizes the favicon image across the entire application.
* If no favicon image file, the favicon default: the Splunk favicon.
  * Supported favicon image files are .ico files, and should be square images.
  * Place the favicon image file in the default or manual location:
    * Default destination folder: $SPLUNK_HOME/etc/apps/search/appserver/static/customfavicon.
      * Example: If your favicon image is located at $SPLUNK_HOME/etc/apps/search/appserver/static/customfavicon/favicon.ico,
set 'customFavicon' to "customfavicon/favicon.ico".
    * Manual location: Place the file in $SPLUNK_HOME/etc/apps/<myApp>/appserver/static/<pathToMyFile>, and set 'customFavicon'
to
    "<myApp:pathToMyFile>".
* Default: not set, Splunk Web uses the Splunk favicon.

loginCustomLogo = <fullUrl, pathToMyFile, myApp:pathToMyFile, or blank for default>
* Customizes the logo image on the login page.
* If no image file, the logo Default: the Splunk logo.
* Supported images are:
  * Full URL image file (secured or not secured), such as https://www.splunk.com/logo.png or http://www.splunk.com/logo.png.
  * Image file, such as .jpg or .png. All image formats are supported.
    * Place logo image file in default or manual location:
      * Default destination folder: $SPLUNK_HOME/etc/apps/search/appserver/static/logincustomlogo.
        * Example: If your logo image is located at $SPLUNK_HOME/etc/apps/search/appserver/static/logincustomlogo/logo.png,
type loginCustomLogo = logincustomlogo/logo.png.
      * Manual location: $SPLUNK_HOME/etc/apps/<myApp>/appserver/static/<pathToMyFile>, and type loginCustomLogo =
<myApp:pathToMyFile>.
* The maximum image size is 485px wide and 100px high. If the image exceeds these limits, the image is automatically resized.
* Default: not set, Splunk Web uses the Splunk logo.

loginBackgroundImageOption = [default| custom | none]
* Controls display of the background image of the login page.
* "default" displays the Splunk default background image.
* "custom" uses the background image defined by the backgroundImageCustomName setting.
* "none" removes any background image on the login page. A dark background color is applied.
* Default: "default".

loginCustomBackgroundImage = <pathToMyFile or myApp:pathToMyFile>
* Customizes the login page background image.
  * Supported image files include .jpg, .jpeg or .png with a maximum file size of 20MB.
  * A landscape image is recommended, with a minimum resolution of 1024x640
    pixels.
  * Using Splunk Web:
    * Upload a custom image to a manager page under General Settings.
    * The login page background image updates automatically.
  * Using the CLI or a text editor:
    * Set 'loginBackgroundImageOption' to "custom".
    * Place the custom image file in the default or manual location:
      * Default destination folder: $SPLUNK_HOME/etc/apps/search/appserver/static/logincustombg.
        * Example: If your image is located at $SPLUNK_HOME/etc/apps/search/appserver/static/logincustombg/img.png, set
        'loginCustomBackgroundImage' to "logincustombg/img.png".
      * Manual location: $SPLUNK_HOME/etc/apps/<myApp>/appserver/static/<pathToMyFile>, and set 'loginCustomBackgroundImage' to
      "<myApp:pathToMyFile>".
    * The login page background image updates automatically.
* Default: not set (If no custom image is used, the default Splunk background image displays).

loginFooterOption = [default | custom | none]
* Controls display of the footer message of the login page.
* "default" displays the Splunk copyright text.
* "custom" uses the footer text defined by the loginFooterText setting.
* "none" removes any footer text on the login page.
* NOTE: This option is made available only to OEM customers participating in
  the Splunk OEM Partner Program and is subject to the relevant terms of the Master OEM Agreement. All other customers or
partners are prohibited from
  removing or altering any copyright, trademark, and/or other intellectual
  property or proprietary rights notices of Splunk placed on or embedded
  in any Splunk materials.
* Default: "default".

loginFooterText = <footer_text>
* The text to display in the footer of the login page.
* Supports any text, including HTML.
* To display, the parameter 'loginFooterOption' must be set to "custom".

loginDocumentTitleOption = [default | custom | none]
```

```
* Controls display of the document title of the login page.
* Default: "default".
* "default" displays: "<page_title> | Splunk".
* "none" removes the branding on the document title of the login page: "<page_title>".
* "custom" uses the document title text defined by the loginDocumentTitleText setting.
* NOTE: This option is made available only to OEM customers participating in
  the Splunk OEM Partner Program and is subject to the relevant terms of the
  Master OEM Agreement. All other customers or partners are prohibited from
  removing or altering any copyright, trademark, and/or other intellectual
  property or proprietary rights notices of Splunk placed on or embedded
  in any Splunk materials.
* Default: "default".

loginDocumentTitleText = <document_title_text>
* The text to display in the document title of the login page.
* Text only.
* To display, the parameter 'loginDocumentTitleOption' must be set to "custom".

firstTimeLoginMessageOption = [default | custom | none]
* Controls display of the first time login message of the login page.
* "default" displays: "If you installed this instance, use the username and password you created at installation.
   Otherwise, use the username and password that your Splunk administrator gave you. If you've forgotten your
   credentials, contact your Splunk administrator."
* "none" removes the branding on the first time message of the login page: "".
* "custom" uses the document title text defined by the firstTimeLoginMessage setting.
* CAUTION: This setting is only configurable for original equipment manufacturer (OEM) customers that participate
  in the Splunk OEM Partner Program. It is subject to the terms of the Master OEM Agreement. If you are not
  a member of this program, you MUST NOT remove or alter any Splunk copyright, trademark, and/or other intellectual
  property or proprietary rights notices that Splunk embeds into any of its material. This action includes but
  is not limited to configuring this setting.
* Default: default

firstTimeLoginMessage = <document_title_text>
* The text to display in the first time message of the login page.
* Text only.
* To display this message, you must first set 'firstTimeLoginMessageOption' to "custom".

loginPasswordHint = <default_password_hint>
* The text to display the password hint at first time login on the login page.
* Text only.
* Default: "The password you created when you installed this instance"

appNavReportsLimit = <integer>
* Maximum number of reports to fetch to populate the navigation drop-down
  menu of an app.
* An app must be configured to list reports in its navigation XML
  configuration before it can list any reports.
* Set to -1 to display all the available reports in the navigation menu.
* NOTE: Setting to either -1 or a value that is higher than the default might
  result in decreased browser performance due to listing large numbers of
  available reports in the drop-down menu.
* Default: 500

simplexml_dashboard_create_version = <string>
* The Simple XML dashboard version used for newly created Simple XML dashboards.
* Version must be a valid Simple XML dashboard version of the form 1.x (for example, 1.0).
* Default: empty string

# The Django bindings component and all associated [framework] settings have been
# removed. Configuring these settings no longer has any effect, and Splunk Enterprise
# ignores any existing settings that are related to the component.

#
# custom cherrypy endpoints
#

[endpoint:<python_module_name>]
* Registers a custom python CherryPy endpoint.
* The expected file must be located at:
  $SPLUNK_HOME/etc/apps/<APP_NAME>/appserver/controllers/<PYTHON_NODULE_NAME>.py
* This module's methods will be exposed at
  /custom/<APP_NAME>/<PYTHON_NODULE_NAME>/<METHOD_NAME>

#
# exposed splunkd REST endpoints
#
[expose:<unique_name>]
* Registers a splunkd-based endpoint that should be made available to the UI
  under the "/splunkd" and "/splunkd/__raw" hierarchies.
* The name of the stanza does not matter as long as it begins with "expose:"
* Each stanza name must be unique.

pattern = <url_pattern>
* The pattern to match under the splunkd /services hierarchy.
* For instance, "a/b/c" would match URIs "/services/a/b/c" and
  "/servicesNS/*/*/a/b/c",
* The pattern cannot include leading or trailing slashes.
* Inside the pattern an element of "*" matches a single path element.
  For example, "a/*/c" would match "a/b/c" but not "a/1/2/c".
* A path element of "**" matches any number of elements. For example,
  "a/**/c" would match both "a/1/c" and "a/1/2/3/c".
* A path element can end with a "*" to match a prefix. For example,
  "a/elem-*/b" would match "a/elem-123/c".

methods = <method_lists>
* A comma-separated list of methods to allow from the web browser
  (example: "GET,POST,DELETE").
* Default: "GET"

oidEnabled = [0 | 1]
* Whether or not a REST endpoint is capable of taking an embed-id as a
  query parameter.
* If set to 1, the endpoint is capable of taking an embed-id
  as a query parameter.
* This is only needed for some internal splunk endpoints, you probably
  should not specify this for app-supplied endpoints
* Default: 0

skipCSRFProtection = [0 | 1]
* Whether or not Splunk Web can safely post to an endpoint without applying
  Cross-Site Request Forgery (CSRF) protection.
* If set to 1, tells Splunk Web that it is safe to post to this endpoint
  without applying CSRF protection.
* This should only be set on the login endpoint (which already contains
  sufficient auth credentials to avoid CSRF problems).
* Default: 0
```

web.conf.example

```
#   Version 8.2.0
#
# This is an example web.conf.  Use this file to configure data web
# settings.
#
# To use one or more of these configurations, copy the configuration block
# into web.conf in $SPLUNK_HOME/etc/system/local/. You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# This stanza heading must precede any changes.
[settings]
```

```
# Change the default port number:
httpport = 12800
# Also run the python application server on a non-default port:
appServerPorts = 12801

# Turn on SSL:
enableSplunkWebSSL = true
# absolute paths may be used here.
privKeyPath = /home/user/certs/myprivatekey.pem
serverCert = /home/user/certs/mycacert.pem
# NOTE: non-absolute paths are relative to $SPLUNK_HOME

# First party apps:
splunk_dashboard_app_name = splunk-dashboard-app

# Allowing embedabble content in dashboards
# Embed tags will appear as is in the dashboard source
dashboard_html_allow_embeddable_content = true
dashboard_html_wrap_embed = false

# The Simple XML dashboard version used for newly created Simple XML dashboards.
simplexml_dashboard_create_version = 1.0
```

wmi.conf

以下为 wmi.conf 的规范和示例文件。

wmi.conf.spec

```
#   Version 8.2.0
#
# This file contains possible setting/value pairs for configuring Windows
# Management Instrumentation (WMI) access from Splunk Enterprise.
#
# There is a wmi.conf in $SPLUNK_HOME\etc\system\default\.  To set custom
# configurations, place a wmi.conf in $SPLUNK_HOME\etc\system\local\. For
# examples, see wmi.conf.example.
#
# You must restart Splunk Enterprise to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

###################################################################
#----GLOBAL SETTINGS-----
 ###################################################################

[settings]
* Specifies parameters for the WMI input.
* The entire stanza and every parameter within it is optional.
* If the stanza is missing, Splunk Enterprise assumes system defaults.

initial_backoff = <integer>
* How long, in seconds, to wait before retrying the connection to
  the WMI provider after the first connection error.
* If connection errors continue, the wait time doubles until it reaches
  the integer specified in 'max_backoff'.
* Default: 5

max_backoff = <integer>
* How long, in seconds, to attempt to reconnect to the
  WMI provider.
* Default: 20

max retries at max backoff = <integer>
```

```
* When the WMI input has connection errors to the WMI provider, it
  backs off connection attempts by doubling the amount of time it
  waits between connection attempts. It modifies attempts from an initial interval of
  'initial_backoff' seconds to an interval specified 'max_backoff'
  seconds.
* After the input has waited 'max_backoff' seconds between connection
  attempts, and while connection errors persist, this setting tells
  the input how many times it should continue trying to connect at
  the 'max_backoff' interval.
* If reconnection to the WMI provider fails after 'max_retries' attempts,
  the input gives up and does not attempt further connections until
  you restart Splunk Enterprise.
* Default: 2

checkpoint_sync_interval = <integer>
* How long, in seconds, to wait for state data (event log checkpoint)
  to be written to disk.
* Default: 2
```

特定于输入的设置-----

```
[WMI:<name>]
* There are two types of WMI input stanza:
  * Event log stanza: Used to collect Windows Event Logs. You must configure the
    'event_log_file' setting.
  * Windows Query Language (WQL): Used to issue raw Windows Query Language (WQL)
    requests. You must configure the 'wql' setting.
* Do not use both the 'event_log_file' amd 'wql' attributes. Use one or the other.

server = <comma-separated strings>
* A comma-separated list of WMI providers (Windows machines) from which to get data.
* Default: the local machine

interval = <integer>
* How often, in seconds, to poll the WMI provider for new data.
* You must supply this setting. No default is supplied and the input does not run if the setting is
  not specified.
* No default.

disabled = <boolean>
* Whether or not the input is enabled.
* Set to 1 to disable the input, 0 to enable it.
* Default: 0 (enabled).

hostname = <string>
* All results generated by this stanza will appear to have arrived from
  the string you specify here.
* This setting is optional.
* Default: input detects the host automatically

current_only = <boolean>
* Changes the characteristics and interaction of WMI-based event
  collections.
* When you set 'current_only' to 1:
  * For event log stanzas, captures events that occur
    only while Splunk Enterprise is running.
  * For WQL stanzas, the input expects event notification queries. The
    WMI class you query must support sending events. Failure to supply
    the correct event notification query structure causes WMI to return
    a syntax error to the input.
  * An example event notification query that watches for process creation:
    * SELECT * FROM __InstanceCreationEvent WITHIN 1 WHERE
      TargetInstance ISA 'Win32_Process'.
* When you set 'current_only' to 0:
  * For event log stanzas, Splunk Enterprise gathers all the events from
```

```
    the checkpoint. If there is no checkpoint, Splunk Enterprise retrieves
    all events starting from the oldest.
  * For WQL stanzas, Splunk Enterprise executes the query and retrieves
    the results. The query is a non-notification query.
  * For example
    * Select * Win32_Process where caption = "explorer.exe"
* Default: 0

use_old_eventlog_api = <boolean>
* Whether or not to read Event Log events with the Event Logging API rather
  than the Windows Event Log API.
* This is an advanced setting. Contact Splunk Support before you change it.
* If set to "true", the input uses the Event Logging API (instead of the Windows Event Log API)
  to read from the Event Log on Windows Server 2008, Windows Vista, and later installations.
* Default: false (Use the API that is specific to the OS.)

use_threads = <integer>
* The number of threads, in addition to the default writer thread, that can
  be created to filter events with the deny list or allow list regular expression.
* This is an advanced setting. Contact Splunk Support before you change it.
* The maximum number of threads is 15.
* Default: 0

thread_wait_time_msec = <integer>
* The interval, in milliseconds, between attempts to re-read Event Log files when a read error occurs.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: 5000

suppress_checkpoint = <boolean>
* Whether or not the Event Log strictly follows the 'checkpointInterval' setting when it saves a checkpoint.
* By default, the Event Log input saves a checkpoint from between zero and 'checkpointInterval' seconds,
  depending on incoming event volume.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: false

suppress_sourcename = <boolean>
* Whether or not to exclude the 'sourcename' field from events.
* When set to "true", the input excludes the 'sourcename' field from events and throughput performance
  (the number of events processed per second) improves.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: false

suppress_keywords = <boolean>
* Whether or not to exclude the 'keywords' field from events.
* When set to "true", the input excludes the 'keywords' field from events and throughput performance
  (the number of events processed per second) improves.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: false

suppress_type = <boolean>
* Whether or not to exclude the 'type' field from events.
* When set to true, the input excludes the 'type' field from events and throughput performance
  (the number of events processed per second) improves.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: false

suppress_task = <boolean>
* Whether or not to exclude the 'task' field from events.
* When set to "true", the input excludes the 'task' field from events and thruput performance
  (the number of events processed per second) improves.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: false

suppress_opcode = <boolean>
* Whether or not to exclude the 'opcode' field from events.
* When set to "true", the input excludes the 'opcode' field from events and throughput performance
  (the number of events processed per second) improves.
* This is an advanced setting. Contact Splunk Support before you change it.
* Default: false
```

```
batch_size = <integer>
* Number of events to fetch on each query.
* Default: 10

checkpointInterval = <integer>
* How often, in seconds, that the Windows Event Log input saves a checkpoint.
* Checkpoints store the event ID of acquired events. This lets the input
  continue monitoring at the correct event after a shutdown or outage.
* Default: 0

index = <string>
* Specifies the index that this input should send the data to.
* This setting is optional.
* When you define 'index', the input prepends "index=" to <string>.
* Default: "index=main" (or whatever you have set as your default index).
```

特定于事件日志的属性：

```
event_log_file = <string><Application, System, etc>
* Tells the input to expect event log data for this stanza, and specifies
  the event log channels you want the input to monitor.
* To specify Event Log sources, use this setting instead of WQL.
* Specify one or more event log channels to poll. You must separate multiple
  Event Log channels with commas.
  * For exmaple, to include the Application and System channels, specify "Application, System".
* No default.

disable_hostname_normalization = <boolean>
* Whether or not the WMI input normalizes hostnames from 'localhost' to
  what is present in the %COMPUTERNAME% Windows system variable.
* If set to "true", hostname normalization is disabled.
* If set to "false" or not set, the input converts the hostname for
  'localhost' to %COMPUTERNAME%.
* 'localhost' refers to the following list of strings:
  * localhost
  * 127.0.0.1
  * ::1
  * the name of the DNS domain for the local computer
  * the fully qualified DNS name
  * the NetBIOS name
  * the DNS host name of the local computer
```

特定于 WQL 的属性：

```
wql = <string>
* Configures the WMI input to expect data from a WMI provider for this stanza, and
  specifies the Windows Query Language query you want the input to make to
  gather that data.
* Use this if you are not using the 'event_log_file' setting.
* Ensure that your WQL queries have the correct syntax and structure when you
  use this option.
  * For example,
    SELECT * FROM Win32_PerfFormattedData_PerfProc_Process WHERE Name = "splunkd".
* If you want to use event notification queries, you must also set the
  "current_only" attribute to "1" within the stanza, and your query must be
  appropriately structured for event notification (meaning its WQL string
  must contain one or more of the GROUP, WITHIN or HAVING clauses.)
  * For example,
    SELECT * FROM __InstanceCreationEvent WITHIN 1 WHERE TargetInstance ISA
    'Win32_Process'
* No default.
```

```
namespace = <string>
* The namespace where the WMI provider resides.
* The namespace specification can either be relative (root\cimv2) or absolute
  (\\server\root\cimv2).
* If the server attribute is present, you cannot specify an absolute
  namespace.
* Default: root\cimv2.
```

wmi.conf.example

```
#   Version 8.2.0
#
# This is an example wmi.conf.  These settings are used to control inputs
# from WMI providers. Refer to wmi.conf.spec and the documentation at
# splunk.com for more information about this file.
#
# To use one or more of these configurations, copy the configuration block
# into wmi.conf in $SPLUNK_HOME\etc\system\local\.  You must restart Splunk
# to enable configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# This stanza specifies runtime parameters.

[settings]
initial_backoff = 5
max_backoff = 20
max_retries_at_max_backoff = 2
checkpoint_sync_interval = 2

# Pull events from the Application, System and Security event logs from the
# local system every 10 seconds. Store the events in the "wmi_eventlog"
# Splunk index.

[WMI:LocalApplication]
interval = 10
event_log_file = Application
disabled = 0
index = wmi_eventlog

[WMI:LocalSystem]
interval = 10
event_log_file = System
disabled = 0
index = wmi_eventlog

[WMI:LocalSecurity]
interval = 10
event_log_file = Security
disabled = 0
index = wmi_eventlog

# Gather disk and memory performance metrics from the local system every
# second.  Store event in the "wmi_perfmon" Splunk index.

[WMI:LocalPhysicalDisk]
interval = 1
wql = select Name, DiskBytesPerSec, PercentDiskReadTime, PercentDiskWriteTime, PercentDiskTime from
Win32_PerfFormattedData_PerfDisk_PhysicalDisk
disabled = 0
index = wmi_perfmon

[WMI:LocalMainMemory]
```

```
interval = 10
wql = select CommittedBytes, AvailableBytes, PercentCommittedBytesInUse, Caption from Win32_PerfFormattedData_PerfOS_Memory
disabled = 0
index = wmi_perfmon

# Collect all process-related performance metrics for the splunkd process,
# every second.  Store those events in the "wmi_perfmon" index.
[WMI:LocalSplunkdProcess]
interval = 1
wql = select * from Win32_PerfFormattedData_PerfProc_Process where Name = "splunkd"
disabled = 0
index = wmi_perfmon

# Listen from three event log channels, capturing log events that occur only
# while Splunk is running, every 10 seconds.  Gather data from three remote
# servers srv1, srv2 and srv3.

[WMI:TailApplicationLogs]
interval = 10
event_log_file = Application, Security, System
server = srv1, srv2, srv3
disabled = 0
current_only = 1
batch_size = 10

# Listen for process-creation events on a remote machine, once a second.

[WMI:ProcessCreation]
interval = 1
server = remote-machine
wql = select * from __InstanceCreationEvent within 1 where TargetInstance isa 'Win32_Process'
disabled = 0
current_only = 1
batch_size = 10

# Receive events whenever someone connects or removes a USB device on
# the computer, once a second.

[WMI:USBChanges]
interval = 1
wql = select * from __InstanceOperationEvent within 1 where TargetInstance ISA 'Win32_PnPEntity' and
TargetInstance.Description='USB Mass Storage Device'
disabled = 0
current_only = 1
batch_size = 10
```

workflow_actions.conf

以下为 workflow_actions.conf 的规范和示例文件。

workflow_actions.conf.spec

```
#   Version 8.2.0
#
# This file contains possible attribute/value pairs for configuring workflow
# actions in Splunk.
#
# There is a workflow_actions.conf in $SPLUNK_HOME/etc/apps/search/default/.
# To set custom configurations, place a workflow_actions.conf in either
# $SPLUNK_HOME/etc/system/local/ or add a workflow_actions.conf file to your
# app's local/ directory. For examples, see workflow_actions.conf.example.
# You must restart Splunk to enable configurations, unless editing them
# through the Splunk manager.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
```

全局设置

```
# Use the [default] stanza to define any global settings.
#  * You can also define global settings outside of any stanza, at the top
#    of the file.
#  * Each conf file should have at most one default stanza. If there are
#    multiple default stanzas, attributes are combined. In the case of
#    multiple definitions of the same attribute, the last definition in the
#    file wins.
#  * If an attribute is defined at both the global level and in a specific
#    stanza, the value in the specific stanza takes precedence.

############################################################################
# General required settings:
# These apply to all workflow action types.
############################################################################

type = <string>
* The type of the workflow action.
* If not set, the Splunk platform skips this workflow action.

label = <string>
* The label to display in the workflow action menu.
* If not set, the Splunk platform skips this workflow action.

############################################################################
# General optional settings:
# These settings are not required but are available for all workflow
# actions.
############################################################################

fields = <comma or space separated list>
* The fields required to be present on the event in order for the workflow
  action to be applied.
* When "display_location" is set to "both" or "field_menu", the workflow
  action will be applied to the menu's corresponding to the specified
  fields.
* If fields is undefined or set to *, the workflow action is applied to all
  field menus.
* If the * character is used in a field name, it is assumed to act as a
  "globber". For example host* would match the fields hostname, hostip, etc.
* Acceptable values are any valid field name, any field name including the *
  character, or * (e.g. *_ip).
* Default: *

eventtypes = <comma or space separated list>
* The eventtypes required to be present on the event in order for the
  workflow action to be applied.
* Acceptable values are any valid eventtype name, or any eventtype name plus
  the * character (e.g. host*).

display_location = <string>
* Dictates whether to display the workflow action in the event menu, the
  field menus or in both locations.
* Accepts field_menu, event_menu, or both.
* Default: both.

disabled = [True | False]
* Dictates whether the workflow action is currently disabled
* Default: False
```

使用字段名称将值嵌入到工作流动作设置

```
# Several settings detailed below allow for the substitution of field values
# using a special variable syntax, where the field's name is enclosed in
# dollar signs.  For example, $_raw$, $hostip$, etc.
#
# The settings, label, link.uri, link.postargs, and search.search_string all
# accept the value of any valid field to be substituted into the final
# string.
#
# For example, you might construct a Google search using an error message
# field called error_msg like so:
# link.uri = http://www.google.com/search?q=$error_msg$.
#
# Some special variables exist to make constructing the settings simpler.

$@field_name$
* Allows for the name of the current field being clicked on to be used in a
  field action.
* Useful when constructing searches or links that apply to all fields.
* NOT AVAILABLE FOR EVENT MENUS

$@field_value$
* Allows for the value of the current field being clicked on to be used in a
  field action.
* Useful when constructing searches or links that apply to all fields.
* NOT AVAILABLE FOR EVENT MENUS

$@sid$
* The sid of the current search job.

$@offset$
* The offset of the event being clicked on in the list of search events.

$@namespace$
* The name of the application from which the search was run.

$@latest_time$
* The latest time the event occurred.  This is used to disambiguate similar
  events from one another. It is not often available for all fields.
```

字段操作类型

```
############################################################################
# Link type:
# Allows for the construction of GET and POST requests via links to external
# resources.
############################################################################

link.uri = <string>
* The URI for the resource to link to.
* Accepts field values in the form $<field name>$, (e.g $_raw$).
* All inserted values are URI encoded.
* Required

link.target = <string>
* Determines if clicking the link opens a new window, or redirects the
  current window to the resource defined in link.uri.
* Accepts: "blank" (opens a new window), "self" (opens in the same window)
* Default: "blank"

link.method = <string>
```

```
* Determines if clicking the link should generate a GET request or a POST
  request to the resource defined in link.uri.
* Accepts: "get" or "post".
* Default: "get".

link.postargs.<int>.<key/value> = <value>
* Only available when link.method = post.
* Defined as a list of key / value pairs like such that foo=bar becomes:
  link.postargs.1.key = "foo"
  link.postargs.1.value = "bar"
* Allows for a conf compatible method of defining multiple identical keys (e.g.):
  link.postargs.1.key = "foo"
  link.postargs.1.value = "bar"
  link.postargs.2.key = "foo"
  link.postargs.2.value = "boo"
  ...
* All values are html form encoded appropriately.

#############################################################################
# Search type:
# Allows for the construction of a new search to run in a specified view.
#############################################################################

search.search_string = <string>
* The search string to construct.
* Accepts field values in the form $<field name>$, (e.g. $_raw$).
* Does NOT attempt to determine if the inserted field values may break
  quoting or other search language escaping.
* Required

search.app = <string>
* The name of the Splunk application in which to perform the constructed
  search.
* By default this is set to the current app.

search.view = <string>
* The name of the view in which to preform the constructed search.
* By default this is set to the current view.

search.target = <string>
* Accepts: blank, self.
* Works in the same way as link.target. See link.target for more info.

search.earliest = <time>
* Accepts absolute and relative times (e.g. -10h).
* Determines the earliest time to search from.

search.latest = <time>
* Accepts absolute and relative times (e.g. -10h).
* Determines the latest time to search to.

search.preserve_timerange = <boolean>
* Ignored if either the search.earliest or search.latest values are set.
* When true, the time range from the original search which produced the
  events list will be used.
* Default: false.
```

workflow_actions.conf.example

```
#   Version 8.2.0
#
# This is an example workflow_actions.conf.  These settings are used to
# create workflow actions accessible in an event viewer.  Refer to
# workflow_actions.conf.spec and the documentation at splunk.com for more
# information about this file.
#
```

```
# To use one or more of these configurations, copy the configuration block
# into workflow_actions.conf in $SPLUNK_HOME/etc/system/local/, or into your
# application's local/ folder.  You must restart Splunk to enable
# configurations.
#
# To learn more about configuration files (including precedence) please see
# the documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles

# These are the default workflow actions and make extensive use of the
# special parameters: $@namespace$, $@sid$, etc.

[show_source]
type=link
fields = _cd, source, host, index
display_location = event_menu
label = Show Source
link.uri = /app/$@namespace$/show_source?sid=$@sid$&offset=$@offset$&latest_time=$@latest_time$

[ifx]
type = link
display_location = event_menu
label = Extract Fields
link.uri = /ifx?sid=$@sid$&offset=$@offset$&namespace=$@namespace$

[etb]
type = link
display_location = event_menu
label = Build Eventtype
link.uri = /etb?sid=$@sid$&offset=$@offset$&namespace=$@namespace$

# This is an example workflow action which will be displayed in a specific
# field menu (clientip).

[whois]
display_location = field_menu
fields = clientip
label = Whois: $clientip$
link.method = get
link.target = blank
link.uri = http://ws.arin.net/whois/?queryinput=$clientip$
type = link

# This is an example field action which will allow a user to search every
# field value in Google.

[Google]
display_location = field_menu
fields = *
label = Google $@field_name$
link.method = get
link.uri = http://www.google.com/search?q=$@field_value$
type = link

# This is an example post link that will send its field name and field value
# to a  fictional bug tracking system.

[Create JIRA issue]
display_location = field_menu
fields = error_msg
label = Create JIRA issue for $error_class$
link.method = post
link.postargs.1.key = error
link.postargs.1.value = $error_msg$
link.target = blank
link.uri = http://127.0.0.1:8000/jira/issue/create
type = link

# This is an example search workflow action that will be displayed in an
# event's menu, but requires the field "controller" to exist in the event in
# order for the workflow action to be available for that event.

[Controller req over time]
display_location = event_menu
fields = controller
label = Requests over last day for $controller$
search.earliest = -3d
search.search_string = sourcetype=rails_app controller=$controller$ | timechart span=1h count
search.target = blank
search.view = charting
type = search
```

workload_policy.conf

以下为 workload_policy.conf 的规范和示例文件。

workload_policy.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure search admission control for splunk.
#
# There is a workload_policy.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name workload_policy.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see workload_policy.conf.example. You may need to restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
# Settings to configure search admission control, including enabling/disabling feature
# and other configurations.
```

[search_admission_control]

```
admission_rules_enabled = <bool>
* Determines whether admission rules are applied to searches.
* If set to true, admission rules for pre-filtering searches are applied when a search
  is dispatched.
* Default: 0
```

workload_policy.conf.example

```
# Enable the admission rules defined in workload_rules.conf.
[search_admission_control]
admission_rules_enabled = 1
```

workload_pools.conf

以下为 workload_pools.conf 的规范和示例文件。

workload_pools.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure workloads for splunk.
#
# There is a workload_pools.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name workload_pools.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see workload_pools.conf.example. You may need to restart the Splunk instance
# to enable configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each .conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file takes precedence.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
#
# CAUTION: Do not alter the settings in the workload_pools.conf file unless you know
#     what you are doing.  Improperly configured worloads might result in
#     splunkd crashes, memory overuse, or both.
```

[general]

```
enabled = <bool>
* Specifies whether workload management has been enabled on the system or not.
* This setting only applies to the default stanza as a global setting.
* Default: false

default_pool = <string>
* Specifies the default workload pool to be used at runtime for search workloads.
* This setting is maintained for backward compatibility with previous releases.
  Its value is set but is not used in the current release. This value matches the
  default_pool value of [workload_category:search].
* This setting is only applicable when workload management has been enabled in
  the system. If workload management has been enabled, this is a mandatory setting.
```

```
ingest_pool = <string>
* Specifies the workload pool for splunkd and helper processes that control
  data ingestion and related actions in the Splunk deployment.
* This setting is maintained for backward compatibility with previous releases.
  Its value is set but is not used in the current release. This value matches the
  default_pool value of [workload_category:ingest].
* This setting is only applicable when workload management has been enabled in
  the system. If workload management has been enabled, this is a mandatory setting.

workload_pool_base_dir_name = <string>
* Specifies the base controller directory name for Splunk cgroups on Linux that is
  used by a Splunk deployment.
* Workload pools created from the workload management page are all created relative
  to this base directory.
* This setting is only applicable when workload management has been enabled in
  the system. If workload management has been enabled, this is a mandatory setting.
* Default: splunk
```

[workload_pool:<pool_name>]

```
cpu_weight = <number>
* Specifies the cpu weight to be used by this workload pool.
* This is a percentage of the total cpu resources available to the category to
  which the pool belongs.
* Default: not set

mem_weight = <number>
* Specifies the memory weight to be used by this workload pool.
* This is a percentage of the total memory resources available to the category to
  which the pool belongs.
* This is a mandatory parameter for the creation of a workload pool and only
  allows positive integral values.
* Default: not set

category = <string>
* Specifies the category to which this workload pool belongs.
* Required to create a workload pool.
* Valid categories are "search","misc" and "ingest".
* The "ingest" and "misc" categories each contain one pool only, which is the
  default_pool for the respective category.
* Default: not set

default_category_pool = <boolean>
* Specifies if this pool is the default pool for its category.
* Admin users can specify workload pools associated with roles. If no workload
  pool is found, the default_pool defined for this category is used.
* The first pool that is added to a category has this value set to 1.
* All other pools have this value set to 0.
* Required if workload management is enabled.
* Default: false
```

[workload_category:<category>]

```
* Specifies the resource allocation for workload pools in this category.
  The <category> value can be "search","ingest' or "misc".
cpu_weight = <number>
* Specifies the cpu weight to be used by this category.
* This is a percentage of the total cpu resources available to all categories.
* This parameter exists in the default configuration and is editable with values
  that are positive integer values less than 100.
* Default is set.

mem_weight = <number>
* Specifies the memory weight to be used by this category.
* This is a percentage of the total memory resources available to all categories.
* This parameter exists in the default configuration and is editable with values
  that are positive integer values less than 100.
* Default is set.
```

workload_pools.conf.example

```
#   Version 8.2.0
# CAUTION: Do not alter the settings in workload_pools.conf unless you know what you are doing.
# Improperly configured workloads may result in splunkd crashes and/or memory overuse.

[general]
enabled = false
default_pool = pool_1
ingest_pool = pool_2
workload_pool_base_dir_name = splunk

[workload_category:search]
cpu_weight = 70
mem_weight = 70

[workload_category:ingest]
cpu_weight = 20
mem_weight = 20

[workload_category:misc]
cpu_weight = 10
mem_weight = 10

[workload_pool:pool_1]
cpu_weight = 40
mem_weight = 40
category = search
default_category_pool = 1

[workload_pool:pool_2]
cpu_weight = 30
mem_weight = 30
category = ingest
default_category_pool = 1

[workload_pool:pool_3]
cpu_weight = 20
mem_weight = 20
category = misc
default_category_pool = 1

[workload_pool:pool_4]
cpu_weight = 10
mem_weight = 10
category = search
default_category_pool = 0
```

workload_rules.conf

以下为 workload_rules.conf 的规范和示例文件。

workload_rules.conf.spec

```
#   Version 8.2.0
#
```

概述

```
# This file contains descriptions of the settings that you can use to
# configure workloads classification rules for splunk.
#
# There is a workload_rules.conf file in the $SPLUNK_HOME/etc/system/default/ directory.
# Never change or copy the configuration files in the default directory.
# The files in the default directory must remain intact and in their original
# location.
#
# To set custom configurations, create a new file with the name workload_rules.conf in
# the $SPLUNK_HOME/etc/system/local/ directory. Then add the specific settings
# that you want to customize to the local configuration file.
# For examples, see workload_rules.conf.example. You do not need to restart the Splunk instance
# to enable workload_rules.conf configuration changes.
#
# To learn more about configuration files (including file precedence) see the
# documentation located at
# http://docs.splunk.com/Documentation/Splunk/latest/Admin/Aboutconfigurationfiles
#
```

全局设置

```
# Use the [default] stanza to define any global settings.
#   * You can also define global settings outside of any stanza, at the top of
#     the file.
#   * Each .conf file should have at most one default stanza. If there are
#     multiple default stanzas, settings are combined. In the case of
#     multiple definitions of the same setting, the last definition in the
#     file takes precedence.
#   * If a setting is defined at both the global level and in a specific
#     stanza, the value in the specific stanza takes precedence.
#
# CAUTION: Do not alter the settings in the workload_rules.conf file unless you know
#     what you are doing.  Improperly configured workload rules might result in
#     splunkd crashes, memory overuse, or both.
```

[workload_rule:<rule_name>]

```
predicate = <string>
* Specifies the predicate of this workload classification rule.
* The format is logical expression with predicate as <type>=<value>.
* For example, "app=search AND (NOT role=power)".
* The valid <type> are "app", "role", "user", "index",
  "search_type", "search_mode" and "search_time_range".
  The <value> is the exact value of the <type>.
* For "app" type, the value is the name of the app. For example, "app=search".
* For "role" type, the value is the name of the role. For example, "role=admin".
* For "index" type, the value is the name of the index. For example,
  "index=_internal". Note that the value can refer to an internal or public index.
* For "user" type, the value is the name of any valid user. For example,
  "user=bob". Note that the reserved internal user "noboby" is invalid; the
  reserved internal user "splunk-system-user" is valid.
* For "search_type" type, the value is the type of the search. Valid search
  types include "adhoc", "scheduled", "datamodel_acceleration",
  "report_acceleration" and "summary_index".
* For "search_mode" type, the value is the mode of the search. Valid modes
  include "realtime" and "historical".
* For "search_time_range" type, the value is the time range of the search.
  For now, value can only be "alltime".
* For "runtime" type, the value is the amount of time a search must run in a
  workload pool to trigger a specified action, such as alert, move or abort.
  Valid units for runtime values include s, second, seconds, m, minute, minutes,
  and h, hour, hours.
* Required.
```

```
workload_pool = <string>
* Specifies the name of the workload pool, for example "pool1".
* The pool name that you specify must already be defined in the
  [workload_pool:<pool_name>] stanza in workload_pools.conf.

action = alert | move | abort
* Specifies the action to take when a search exceeds the specified runtime value.
* The action "alert" sends a notification message to Splunk Web that indicates
  the runtime of the search.
* The action "move" moves the search from the original workload pool to a
  designated alternate workload pool, and sends a notification message to
  Splunk Web.
* The action "abort" kills the search, and sends a notification message to
  Splunk Web.
* Optional.

schedule = always_on | time_range | every_day | every_week | every_month
* Specifies whether the rule is always on or has a valid time range that
  expires.
* Optional. If it's empty, it means the rule is always on.

start_time = <string>
* When 'schedule' is set to "time_range", 'start_time' specifies the exact time
  that the valid time range starts, including date, time and time zone.
* When 'schedule' is set to "every_week" or "every_month", it specifies
  the start hour.
* Optional.

end_time = <string>
* When 'schedule' is set to "time_range", 'end_time' specifies the exact time
  that the valid time range ends, including date, time and time zone.
* When 'schedule' is set to "every_week" or "every_month", it specifies the end
  hour.
* Optional.

every_week_days = <string>
* Specifies recurring days of the week.
* Supports numbers from 0 to 6, where 0 represents Sunday.
* Only applies when 'schedule' is set to "every_week".
* Optional.

every_month_days = <string>
* Specifies recurring days of the month.
* Supports numbers from 1 to 31, where 1 represents the 1st day of the month.
* Only applies when 'schedule' is set to "every_month".
* Optional.

user_message = <string>
* Specifies the message shown in the search job inspector if the rule is
  applied to a search.
* Cannot exceed 140 characters.
* Optional.

disabled = <boolean>
* Toggles a workload rule off and on.
* Set to "true" to disable a rule.
* Default: false
```

[workload_rules_order]

```
rules = <string>
* List of all workload classification rules.
* The format of the "string" is comma separated items, "rule1,rule2,...".
* The rules listed are defined in [workload_rule:<rule_name>] stanza.
* The order of the rule name in the list determines the priorities of that rule.
  For example, in "rule1,rule2", rule1 has higher priority than rule2.
```

```
* The default value for this property is empty, meaning there is no rule defined.
```

[search_filter_rule:<rule_name>]

```
predicate = <string>
* Specifies the predicate of this workload classification rule.
* The format is logical expression with predicate as <type>=<value>.
* For example, "app=search AND (NOT role=power)".
* The valid <type> are "app", "role", "user", "index",
  "search_type", "search_mode" and "search_time_range".
  The <value> is the exact value of the <type>.
* For "app" type, the value is the name of the app. For example, "app=search".
* For "role" type, the value is the name of the role. For example, "role=admin".
* For "index" type, the value is the name of the index. For example,
  "index=_internal". Note that the value can refer to an internal or public index.
* For "user" type, the value is the name of any valid user. For example,
  "user=bob". Note that the reserved internal user "noboby" is invalid; the
  reserved internal user "splunk-system-user" is valid.
* For "search_type" type, the value is the type of the search. Valid search
  types include "adhoc", "scheduled", "datamodel_acceleration",
  "report_acceleration" and "summary_index".
* For "search_mode" type, the value is the mode of the search. Valid modes
  include "realtime" and "historical".
* For "search_time_range" type, the value is the time range of the search.
  For now, value can only be "alltime".
* Required.

action = filter
* Specifies the action to take when a search meets the rule criteria.
* The action "filter" is defined for search filter rules. If a search meets the rule
  criteria, the search is not executed.
* Required.

schedule = always_on | time_range | every_day | every_week | every_month
* Specifies whether the rule is always on or has a valid time range that
  expires.
* Optional. If it's empty, it means the rule is always on.

start_time = <string>
* When 'schedule' is set to "time_range", 'start_time' specifies the exact time
  that the valid time range starts, including date, time and time zone.
* When 'schedule' is set to "every_week" or "every_month", it specifies
  the start hour.
* Optional.

end_time = <string>
* When 'schedule' is set to "time_range", 'end_time' specifies the exact time
  that the valid time range ends, including date, time and time zone.
* When 'schedule' is set to "every_week" or "every_month", it specifies the end
  hour.
* Optional.

every_week_days = <string>
* Specifies recurring days of the week.
* Supports numbers from 0 to 6, where 0 represents Sunday.
* Only applies when 'schedule' is set to "every_week".
* Optional.

every_month_days = <string>
* Specifies recurring days of the month.
* Supports numbers from 1 to 31, where 1 represents the 1st day of the month.
* Only applies when 'schedule' is set to "every_month".
* Optional.

user_message = <string>
* Specifies the message when a search is filtered out by this rule.
* Cannot exceed 140 characters.
* Optional.

disabled = <boolean>
* Toggles a search filter rule off and on.
* Set to "true" to disable a rule.
* Default: false
```

workload_rules.conf.example

```
[workload_rules_order]
rules = my_analyst_rule,my_app_rule,my_user_rule,my_index_rule

[workload_rule:my_app_rule]
predicate = app=search
workload_pool = my_app_pool

[workload_rule:my_analyst_rule]
predicate = role=analyst
workload_pool = my_analyst_pool
schedule = always_on

[workload_rule:my_user_rule]
predicate = user=admin
workload_pool = my_user_pool
schedule = always_on

[workload_rule:my_index_rule]
predicate = index=_internal
workload_pool = my_index_pool
schedule = time_range
start_time = 2019-01-01T04:00:00-08:00
end_time = 2019-01-05T04:00:00-08:00

[workload_rule:my_search_type_rule]
predicate = search_type=adhoc
workload_pool = my_adhoc_pool
schedule = every_day
start_time = 10
end_time = 15

[workload_rule:my_logical_rule_1]
predicate = app=search AND (NOT index=_internal)
workload_pool = my_logical_pool_1
schedule = every_week
start_time = 10
end_time = 23
every_week_days = [0,4,6]

[workload_rule:my_logical_rule_2]
predicate = NOT role=power OR user=admin
workload_pool = my_logical_pool_2
schedule = every_month
start_time = 1
end_time = 2
every_month_days = [1,5,16,31]
```