日ま

让你系统认识flume及安装和使用flume1.5传输数据到hadoop2.2

热度 2 已有 537 次阅读2014-6-2 12:55

问题导读:

- 1.什么是flume?
- 2.如何安装flume?
- 3.flume的配置文件与其它软件有什么不同?



pig2 € 查看广播 **№** 收听TA

☎ 加为好友 🙎 给我留言

打个招呼 ≥ 33次間日

a Nie ok nie

一、认识flume

1.flume是什么?

这里简单介绍一下,它是Cloudera的一个产品

2.flume是干什么的?

收集日志的

3.flume如何搜集日志?

我们把flume比作情报人员

- (1) 搜集信息
- (2) 获取记忆信息
- (3) 传递报告间谍信息

flume是怎么完成上面三件事情的, 三个组件:

source: 搜集信息 channel: 传递信息 sink: 存储信息

上面有点简练,详细可以参考Flume内置channel,source,sink三组件介绍

上面我们认识了, flume。 下面我们来安装flume1.5

二、安装flume1.5

1.下载安装包



(1) 官网下载 apache-flume-1.5.0-bin.tar.gz apache-flume-1.5.0-src.tar.gz (2) 百度网盘下载 链接: http://pan.baidu.com/s/1dDip8RZ 密码: 268r 我们走到这一步,我们会想到一个问题,我的电脑是32位的,不知道能否安装?如果我的电脑是64位的, 能否安装。之前我们装的hadoop就分为32位和64位,想到这个问题是正常的,但是这里不用担心,因为我 们下载的是二进制包,也就是说你32位和64位都可以安装。 2.分别解压: 下载之后, 我们看到下面两个包: (1) 上传Linux aboutyun@master:/usr\$ 上面两个包,可以下载window,然后通过WinSCP,如果不会新手指导:使用WinSCP(下载)上文件到Linux图文教程 (2) 解压包 解压apache-flume-1.5.0-bin.tar.gz,解压到usr文件夹下面 ∃□□ sudo tar zxvf apache-flume-1.5.0-bin.tar.gz aboutyun@master:/usr\$ sudo tar zxvf apache-flume-1.5.0-bin.tar.gz 解压apache-flume-1.5.0-src.tar.gz,解压到usr文件夹下面 ∃□□ sudo tar zxvf apache-flume-1.5.0-src.tar.gz aboutyun@master:/usr\$ sudo tar zxvf apache-flume-1.5.0-src.tar.gz (3) src里面文件内容,覆盖解压后bin文件里面的内容 ∃□□ sudo cp -ri apache-flume-1.5.0-src/* apache-flume-1.5.0-bin aboutyun@master:/usr\$ sudo cp -ri apache-flume-1.5.0-src/* apache-flume-1.5.0-bin (4)重命名 ∃□□ mv apache-flume-1.5.0-bin/ flume aboutyun@master:/usr\$ mv apache-flume-1.5.0-bin/ flume

3.配置环境变量:

PATH="/usr/flume/bin:/usr/hive/bin:/usr/hbase/bin:/usr/hadoop/bin:,

配置环境变量生效

∃□□ source /etc/environment

3.建立配置文件

这里面的配置文件还是比较特别的,不同于以往我们安装的软件,我们这里可以自己建立配置文件。 首先我们建立一个 example文件

∃□□ vi example

,然后把下面内容,粘帖到里面就可以了,注意不要有乱码,有乱码的话,可以直接创建一个文件,然后上传。方法也 有很多,能解决就好。

对于下面红字部分,记得创建文件夹,并且注意他们的权限一致,这个比较简单的,就不在书写了。对于下面的配置项,可以参考flume参考文档,这里面的参数很详细。

agent1表示代理名称 agent1.sources=source1 agent1.sinks=sink1 agent1.channels=channel1

#配置source1

agent1.sources.source1.type=spooldir

agent1.sources.source1.spoolDir=/usr/aboutyunlog

agent1.sources.source1.channels=channel1

agent1.sources.source1.fileHeader = false

#配置sink1

agent1.sinks.sink1.type=hdfs

agent1.sinks.sink1.hdfs.path=hdfs://master:8020/aboutyunlog

agent 1. sinks. sink 1. hdfs. file Type = Data Stream

agent1.sinks.sink1.hdfs.writeFormat=TEXT

agent1.sinks.sink1.hdfs.rollInterval=4

agent1.sinks.sink1.channel=channel1

#配置channel1

agent 1. channel s. channel 1. type = file

agent1.channels.channel1.checkpointDir=/usr/aboutyun_tmp123

agent1.channels.channel1.dataDirs=/usr/aboutyun_tmp

```
agent1表示代理名称
agent1.sources=source1
agent1.sinks=sink1
agent1.channels=channel1
#配置source1
agent1.sources.source1.type=spooldir
agent1.sources.source1.spoolDir=/usr/aboutyunlog
agent1.sources.source1.channels=channel1
agent1.sources.source1.fileHeader = false
#配置sink1
agent1.sinks.sink1.type=hdfs
agent1.sinks.sink1.hdfs.path=hdfs://master:8020/aboutyunlog
agent1.sinks.sink1.hdfs.fileType=DataStream
agent1.sinks.sink1.hdfs.writeFormat=TEXT
agent1.sinks.sink1.hdfs.rollInterval=4
agent1.sinks.sink1.channel=channel1
```

注意:执行命令是

./flume-ng agent -n agent1 -c ~/soft/apache-flume-1.5.0.1-bin/conf/ -f ~/soft/apache-flume-1.5.0.1-bin/conf/flume-conf.properties -Dflume.root.logger=ALL,console 执行时会报错,一些类找不到,需要执行下面的命令,拷贝hadoop一些jar过去

cp ~/soft/hadoop-2.2.0/share/hadoop/common/hadoop-common-2.2.0.jar ~/soft/apache-flume-1.5.0.1-bin/lib/cp ~/soft/hadoop-2.2.0/share/hadoop/common/lib/commons-configuration-1.6.jar ~/soft/apache-flume-1.5.0.1-bin/lib/

cp ~/soft/hadoop-2.2.0/share/hadoop/common/lib/hadoop-auth-2.2.0.jar ~/soft/apache-flume-1.5.0.1-bin/lib/cp ~/soft/hadoop-2.2.0/share/hadoop/hdfs/hadoop-hdfs-2.2.0.jar ~/soft/apache-flume-1.5.0.1-bin/lib/

flume-ng agent -n agent1 -c conf -f /usr/flume/conf/example -Dflume.root.logger=DEBUG,console

上面注意红字部分,是我们自己建立的文件,而对于绿色部分,则是输出调试信息,也可以在配置文件中配置。

5.我们启动flume之后

会看到下面信息,并且信息不停的重复。这个其实是在空文件的时候,监控的信息输出。

2014-06-02 12:23:42,488 (conf-file-poller-0) [DEBUG - org.apache.flume.node.PollingPropertiesFileConfigurationProvider\$FileWatcherRunnable.run(PollingPropertiesFileConfigurationProvider.java:126)] Checking file:conf/example1 for changes 2014-06-02 12:24:11,017 (Log-BackgroundWorker-channel1) [DEBUG - org.apache.flume.channel.file.FlumeEventQueue.checkpoint(FlumeEventQueue.java:137)] Checkpoint not required 2014-06-02 12:24:12,489 (conf-file-poller-0) [DEBUG - org.apache.flume.node.PollingPropertiesFileConfigurationProvider\$FileWatcherRunnable.run(PollingPropertiesFileConfigurationProvider.java:126)] Checking file:conf/example1 for changes 2014-06-02 12:24:41,018 (Log-BackgroundWorker-channel1) [DEBUG - org.apache.flume.channel.file.FlumeEventQueue.checkpoint(FlumeEventQueue.java:137)] Checkpoint not required 2014-06-02 12:24:42,490 (conf-file-poller-0) [DEBUG - org.apache.flume.node.PollingPropertiesFileConfigurationProvider\$FileWatcherRunnable.run(PollingPropertiesFileConfigurationProvider.java:126)] Checking file:conf/example1 for changes

一旦有文件输入, 我们会看到下面信息。

注意:这个不要关闭,我们另外开启一个shell,在监控文件夹中放入要上传的文件

比如我们在监控文件夹下, 创建一个test1文件, 内容如下

```
hello 1
hello 2
hello aboutyun
```

```
这时候flume监控shell,会有相应的如下下面变化
                      2014-06-02 12:01:04,066 (pool-6-thread-1) [INFO -
                      der.java:332)] Preparing to move file /usr/aboutyunlog/test1 to /usr/aboutyunlog/test1.COMPLETED
                      2014-06-02 12:01:04,070 (pool-6-thread-1) [ERROR -
                      org.apache.flume.source.SpoolDirectorySource$SpoolDirectoryRunnable.run(SpoolDirectorySource.java:25
                      6)] FATAL: Spool Directory source source1: { spoolDir: /usr/aboutyunlog }: Uncaught exception in
                      SpoolDirectorySource thread. Restart or reconfigure Flume to continue processing.
                     java.lang.IllegalStateException: File name has been re-used with different files. Spooling assumptions
                      violated for /usr/aboutyunlog/test1.COMPLETED
                      at
                      org. a pache. flume. client. avro. Reliable Spooling File Event Reader. roll Current File (Reliable Spooling File Event Reader. roll Current File) and the file of the file 
                      der.java:362)
                      at
                      org. a pache. flume. client. avro. Reliable Spooling File Event Reader. retire Current File (Reliable Spooling File Event Reader. retire Current File (Red File Event Reader. retire Current File Event Reader. retire Current File (Red File Event Reader. retire Current File Event Reader. retire File Event Reader. retire File Event File Event Reader. retire File Event F
                      eader.java:314)
                      at
                      org.apache.flume.client.avro.ReliableSpoolingFileEventReader.readEvents(ReliableSpoolingFileEventReader
                       .java:243)
                      at
                      org.apache.flume.source.SpoolDirectorySource$SpoolDirectoryRunnable.run(SpoolDirectorySource.java:22
                      7)
                      at java.util.concurrent.Executors$RunnableAdapter.call(Executors.java:471)
                      at java.util.concurrent.FutureTask.runAndReset(FutureTask.java:304)
                      at
                     java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$ScheduledFutureTask.access$Schedule
                      IExecutor.java:178)
                      at
                     java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.run(ScheduledThreadPoolExecut
                      or.java:293)
                      at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1145)
                      at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:615)
                      at java.lang.Thread.run(Thread.java:744)
                      2014-06-02 12:01:07,749 (SinkRunner-PollingRunner-DefaultSinkProcessor) [INFO -
                      org.apache.flume.sink.hdfs.HDFSDataStream.configure(HDFSDataStream.java:58)] Serializer = TEXT,
                      UseRawLocalFileSystem = false
                      2014-06-02 12:01:07,803 (SinkRunner-PollingRunner-DefaultSinkProcessor) [INFO -
                      org.apache.flume.sink.hdfs.BucketWriter.open(BucketWriter.java:261)] Creating
                      hdfs://master:8020/aboutyunlog/FlumeData.1401681667750.tmp
```

```
2014-06-02 12:01:07,871 (hdfs-sink1-call-runner-2) [DEBUG -
     org.apache.flume.sink.hdfs.AbstractHDFSWriter.java:1
     95)] Using getNumCurrentReplicas--HDFS-826
     2014-06-02 12:01:07,871 (hdfs-sink1-call-runner-2) [DEBUG -
     org.apache.flume.sink.hdfs.AbstractHDFSWriter.reflectGetDefaultReplication(AbstractHDFSWriter.java:223
     )] Using FileSystem.getDefaultReplication(Path) from HADOOP-8014
     2014-06-02 12:01:10,945 (Log-BackgroundWorker-channel1) [INFO -
     org.apache.flume.channel.file.EventQueueBackingStoreFile.beginCheckpoint(EventQueueBackingStoreFile.j
     ava:214)] Start checkpoint for /usr/aboutyun_tmp123/checkpoint, elements to sync = 3
     2014-06-02 12:01:10,949 (Log-BackgroundWorker-channel1) [INFO -
     org.apache.flume.channel.file.EventQueueBackingStoreFile.checkpoint(EventQueueBackingStoreFile.java:2
     39)] Updating checkpoint metadata: logWriteOrderID: 1401681430998, queueSize: 0, queueHead: 11
     2014-06-02 12:01:10,952 (Log-BackgroundWorker-channel1) [INFO -
     org.apache.flume.channel.file.Log.writeCheckpoint(Log.java:1005)] Updated checkpoint for file:
     /usr/aboutyun_tmp/log-8 position: 2482 logWriteOrderID: 1401681430998
     2014-06-02 12:01:10,953 (Log-BackgroundWorker-channel1) [DEBUG -
     org.apache.flume.channel.file.Log.removeOldLogs(Log.java:1067)] Files currently in use: [8]
     2014-06-02 12:01:11,872 (hdfs-sink1-roll-timer-0) [DEBUG -
     org.apache.flume.sink.hdfs.BucketWriter$2.call(BucketWriter.java:303)] Rolling file
     (hdfs://master:8020/aboutyunlog/FlumeData.1401681667750.tmp): Roll scheduled after 4 sec elapsed.
     2014-06-02 12:01:11,873 (hdfs-sink1-roll-timer-0) [INFO -
     org.apache.flume.sink.hdfs.BucketWriter.close(BucketWriter.java:409)] Closing
     hdfs://master:8020/aboutyunlog/FlumeData.1401681667750.tmp
     2014-06-02 12:01:11,873 (hdfs-sink1-call-runner-7) [INFO -
     org.apache.flume.sink.hdfs.BucketWriter$3.call(BucketWriter.java:339)] Close tries incremented
     2014-06-02 12:01:11,895 (hdfs-sink1-call-runner-8) [INFO -
     org.apache.flume.sink.hdfs.BucketWriter$8.call(BucketWriter.java:669)] Renaming
     hdfs://master:8020/aboutyunlog/FlumeData.1401681667750.tmp to
     hdfs://master:8020/aboutyunlog/FlumeData.1401681667750
     2014-06-02 12:01:11,897 (hdfs-sink1-roll-timer-0) [INFO -
     org.apache.flume.sink.hdfs.HDFSEventSink$1.run(HDFSEventSink.java:402)] Writer callback called.
     2014-06-02 12:01:12,423 (conf-file-poller-0) [DEBUG -
     org.apache.flume.node.PollingPropertiesFileConfigurationProvider$FileWatcherRunnable.run(PollingPropert
     iesFileConfigurationProvider.java:126)] Checking file:conf/example for changes
     2014-06-02 12:01:40,953 (Log-BackgroundWorker-channel1) [DEBUG -
     org.apache.flume.channel.file.FlumeEventQueue.checkpoint(FlumeEventQueue.java:137)] Checkpoint not
     required
上传成功之后,我们去hdfs上,查看上传文件:
```

```
aboutyun@master:/usr/aboutyunlog$ hadoop fs -text /aboutyunlog/FlumeData.1401681
667750
hello 1
nello 2
nello aboutyun
```

这样我们做到了flume上传到hadoop2.2。

完毕



Powered by Discuz! X3.1 Licensed © 2001-2013 Comsenz Inc.



