

Flink 1.13.2 集群安装部署的 3 种方式(建议收藏)

本文作者：在 IT 中穿梭旅行

本文档来自公众号：3 分钟秒懂大数据

微信扫码关注



备注：加技术群



大家好，我是土哥。

今天，有位 Flink 初学者问我有没有 Flink 的安装教程，看到这后，土哥二话不说直接安排上。

以下教程全部使用 Flink1.13.2 版本，在普通用户下面部署：

1、Standalone 部署

版本要求：

版本	节点	部署方式
flink-1.13.2-bin-scala_2.11.tgz	192.168.244.129	standalone

1.1 将软件安装包放入集群中

```
[liyaozhou@hlinkuil lyz]$ ll
总用量 306572
drwxrwxr-x.  3 liyaozhou liyaozhou    84 6月  1 16:29 data
-rw-r--r--.  1 liyaozhou liyaozhou 313922934 9月 17 11:09 flink-1.13.2-bin-scala_2.11.tgz
drwxr-xr-x. 10 liyaozhou liyaozhou   161 9月 16 19:10 hadoop-2.6.4
drwxrwxr-x.  9 liyaozhou liyaozhou   183 9月 16 22:18 hbase-1.2.12
drwxrwxr-x.  4 liyaozhou liyaozhou    37 9月 16 19:13 hdpdata
drwxrwxr-x.  2 liyaozhou liyaozhou    99 5月 17 15:15 jar
drwxr-xr-x.  8 liyaozhou liyaozhou   117 9月  1 16:19 kafka_2.12-2.2.1
drwxrwxr-x.  2 liyaozhou liyaozhou    52 8月  5 16:36 model
drwxr-xr-x. 15 liyaozhou liyaozhou  4096 9月 16 20:36 zookeeper-3.4.14
[liyaozhou@hlinkuil lyz]$
```

1.2、软件包解压

```
tar -zxvf flink-1.13.2-bin-scala_2.11.tgz
```

```
drwxr-xr-x. 15 liyaozhou liyaozhou  4096 9月 16 20:36 zookeeper-3.4.14
[liyaozhou@hlinkuil lyz]$ tar -zxvf flink-1.13.2-bin-scala_2.11.tgz
flink-1.13.2/
flink-1.13.2/LICENSE
flink-1.13.2/bin/
flink-1.13.2/licenses/
flink-1.13.2/plugins/
flink-1.13.2/NOTICE
flink-1.13.2/examples/
```

1.3、配置系统环境变量

1、进入目录下

```
cd flink-1.13.2/
```

2、查看完整 classpath，然后复制

```
pwd
```

3、编辑系统变量

```
sudo vim /etc/profile
```

#4、配置变量环境

```
export FLINK_HOME=/home/liyaozhou/lyz/flink-1.13.2
export PATH=$PATH:$FLINK_HOME/bin
```

#5 刷新系统变量环境

```
source /etc/profile
```

#6 查看是否配置成功

```
$FLINK_HOME
```

```
[liyaozhou@hlinkui1 lyz]$ clear
[liyaozhou@hlinkui1 lyz]$ cd flink-1.13.2/ 1、进入目录下
[liyaozhou@hlinkui1 flink-1.13.2]$ pwd
/home/liyaozhou/lyz/flink-1.13.2 2、复制
[liyaozhou@hlinkui1 flink-1.13.2]$ sudo vim /etc/profile
[sudo] liyaozhou 的密码: 3、编辑系统变量
```

```
export FLINK_HOME=/home/liyaozhou/lyz/flink-1.13.2
export PATH=$PATH:$FLINK_HOME/bin
```

```
[liyaozhou@hlinkui1 flink-1.13.2]$ source /etc/profile
[liyaozhou@hlinkui1 flink-1.13.2]$ $FLINK_HOME
-bash: /home/liyaozhou/lyz/flink-1.13.2: 是一个目录
[liyaozhou@hlinkui1 flink-1.13.2]$
```

1.4、配置 Flink conf 文件

进入到 flink-1.13.2/conf 目录下

1.4.1 配置 flink-conf.yaml

#1. 配置 jobmanager rpc 地址

```
jobmanager.rpc.address: 192.168.244.129
```

#2. 修改 `taskmanager` 内存大小，可改可不改

`taskmanager.memory.process.size: 2048m`

#3. 修改一个 `taskmanager` 中对于的 `taskslot` 个数，可改可不改

`taskmanager.numberOfTaskSlots: 4`

#修改并行度，可改可不改

`parallelism.default: 4`

```
jobmanager.rpc.address: 192.168.244.129

# The RPC port where the JobManager is reachable.

jobmanager.rpc.port: 6123

# The total process memory size for the JobManager.
# Note this accounts for all memory usage within the JobManager.

jobmanager.memory.process.size: 1600m

# The total process memory size for the TaskManager.
# Note this accounts for all memory usage within the TaskManager.

taskmanager.memory.process.size: 2048m

# To exclude JVM metaspace and overhead, please, use total Flink heap memory.
# It is not recommended to set both 'taskmanager.memory.process.size' and 'taskmanager.memory.flink.size'.
# taskmanager.memory.flink.size: 1280m
# The number of task slots that each TaskManager offers. Each TaskManager must have the same number of slots.
taskmanager.numberOfTaskSlots: 4

# The parallelism used for programs that did not specify and
parallelism.default: 4
```

1.4.2 配置 master

#修改主节点 ip 地址

`192.168.244.129:8081`

1.4.3 配置 work

#修改从节点 ip，因为是 `standalone`，所有主从一样

`192.168.244.129`

1.4.4 配置 zoo

新建 **snapshot** 存放的目录，在 **flink-1.13.2** 目录下建

```
mkdir tmp
cd tmp
mkdir zookeeper
```

#修改 **conf** 下 **zoo.cfg** 配置

```
vim zoo.cfg
```

#**snapshot** 存放的目录

```
dataDir=/home/liyaozhou/lyz/flink-1.13.2/tmp/zookeeper
```

#配置 **zookeeper** 地址

```
server.1=192.168.244.129:2888:3888
```

```
# The directory where the snapshot is stored.
dataDir=/home/liyaozhou/lyz/flink-1.13.2/tmp/zookeeper

# The port at which the clients will connect
clientPort=2181

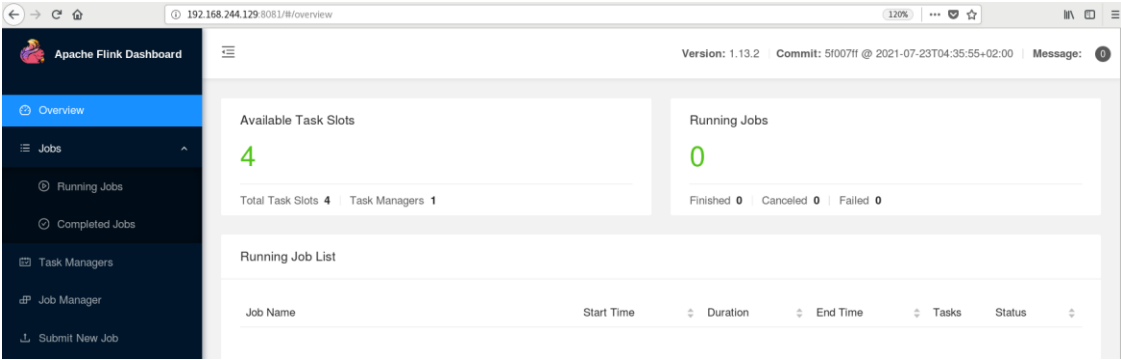
# ZooKeeper quorum peers
server.1=192.168.244.129:2888:3888
# server.2=host:peer-port:leader-port
```

1.5、启动 Flink 集群

进入 **flink-1.13.2/bin** 目录下

```
./start-cluster.sh
```

```
flink jobmanager.sh mesos-appmaster-jobmanager.sh
[liyaozhou@hlinkui bin]$ ./start-cluster.sh
Starting cluster.
Starting standalone-session daemon on host hlinkui.
Starting task-executor daemon on host hlinkui.
[liyaozhou@hlinkui bin]$ jps
31904 Jps
31842 TaskManagerRunner
31443 StandaloneSessionClusterEntrypoint
29797 Kafka
18265 NameNode
23065 QuorumPeerMain
18491 SecondaryNameNode
18668 ResourceManager
26574 HMaster
[liyaozhou@hlinkui bin]$
```



2、Standalone-HA 集群部署

集群部署两节点

版本	主节点	从节点	部署方式
flink-1.13.2-bin-scala_2.11.tgz	192.168.244.129	192.168.244.130	standalone-HA
hadoop 2.6.4	192.168.244.129	192.168.244.130	Distributed
zookeeper3.4.14	192.168.244.129	192.168.244.130	Distributed

前提是 zookeeper 和 hadoop 集群全部配置好

2.1、将软件安装包放入集群中

```
[liyaozhou@hlinkuil lyz]$ ll
总用量 306572
drwxrwxr-x.  3 liyaozhou liyaozhou      84 6月   1 16:29 data
-rw-r--r--.  1 liyaozhou liyaozhou 313922934 9月  17 11:09 flink-1.13.2-bin-scala_2.11.tgz
drwxr-xr-x. 10 liyaozhou liyaozhou      161 9月  16 19:10 hadoop-2.6.4
drwxrwxr-x.  9 liyaozhou liyaozhou      183 9月  16 22:18 hbase-1.2.12
drwxrwxr-x.  4 liyaozhou liyaozhou       37 9月  16 19:13 hdpdata
drwxrwxr-x.  2 liyaozhou liyaozhou       99 5月  17 15:15 jar
drwxr-xr-x.  8 liyaozhou liyaozhou      117 9月   1 16:19 kafka_2.12-2.2.1
drwxrwxr-x.  2 liyaozhou liyaozhou       52 8月   5 16:36 model
drwxr-xr-x. 15 liyaozhou liyaozhou     4096 9月  16 20:36 zookeeper-3.4.14
[liyaozhou@hlinkuil lyz]$
```

2.2、软件包解压

```
tar -zxvf flink-1.13.2-bin-scala_2.11.tgz
```

```
drwxr-xr-x. 15 liyaozhou liyaozhou     4096 9月  16 20:36 zookeeper-3.4.14
[liyaozhou@hlinkuil lyz]$ tar -zxvf flink-1.13.2-bin-scala_2.11.tgz
flink-1.13.2/
flink-1.13.2/LICENSE
flink-1.13.2/bin/
flink-1.13.2/licenses/
flink-1.13.2/plugins/
flink-1.13.2/NOTICE
flink-1.13.2/examples/
```

2.3、配置系统环境变量

1、进入目录下

```
cd flink-1.13.2/
```

2、查看完整 classpath，然后复制

```
pwd
```

3、编辑系统变量

```
sudo vim /etc/profile
```

#4、配置变量环境

```
export FLINK_HOME=/home/liyaozhou/lyz/flink-1.13.2
```

```
export PATH=$PATH:$FLINK_HOME/bin
```

#5、添加 hadoop_conf classpath

```
export HADOOP_CONF_DIR=/home/liyaozhou/lyz/hadoop-2.6.4/etc/hadoop
```

#6 刷新系统变量环境

```
source /etc/profile
```

#7 查看是否配置成功

```
$FLINK_HOME
```

```
[liyaozhou@hlinkui1 lyz]$ clear
[liyaozhou@hlinkui1 lyz]$ cd flink-1.13.2/ 1、进入目录下
[liyaozhou@hlinkui1 flink-1.13.2]$ pwd
/home/liyaozhou/lyz/flink-1.13.2 2、复制
[liyaozhou@hlinkui1 flink-1.13.2]$ sudo vim /etc/profile
[sudo] liyaozhou 的密码: 3、编辑系统变量
```

```
export FLINK_HOME=/home/liyaozhou/lyz/flink-1.13.2
export PATH=$PATH:$FLINK_HOME/bin
```

```
[liyaozhou@hlinkui1 flink-1.13.2]$ source /etc/profile
[liyaozhou@hlinkui1 flink-1.13.2]$ $FLINK_HOME
-bash: /home/liyaozhou/lyz/flink-1.13.2: 是一个目录
[liyaozhou@hlinkui1 flink-1.13.2]$
```

2.4、配置 Flink conf 文件

进入到 flink-1.13.2/conf 目录下

2.4.1 配置 flink-conf.yaml

#1. 配置 jobmanager rpc 地址

jobmanager.rpc.address: 192.168.244.129

#2. 修改 taskmanager 内存大小，可改可不改

taskmanager.memory.process.size: 2048m

#3. 修改一个 taskmanager 中对于的 taskslot 个数，可改可不改

taskmanager.numberOfTaskSlots: 4

#4. 修改并行度，可改可不改

parallelism.default: 4

#5. 配置状态后端存储方式

state.backend:filesystem

#6. 配置启用检查点，可以将快照保存到 HDFS

state.backend.fs.checkpointdir: hdfs://192.168.244.129:9000/flink-check

points

#7. 配置保存点，可以将快照保存到 HDFS

state.savepoints.dir: hdfs://192.168.244.129:9000/flink-savepoints

#8. 使用 zookeeper 搭建高可用

high-availability: zookeeper

#9. 配置 ZK 集群地址

high-availability.zookeeper.quorum: 192.168.244.129:2181

#10. 存储 JobManager 的元数据到 HDFS

high-availability.storageDir: hdfs://192.168.244.129:9000/flink/ha/

#11. 配置 zookeeper client 默认是 open，如果 zookeeper security 启用了更改成 creator

high-availability.zookeeper.client.acl: open

```
jobmanager.rpc.address: 192.168.244.129
# The RPC port where the JobManager is reachable.
jobmanager.rpc.port: 6123
# The total process memory size for the JobManager.
# Note this accounts for all memory usage within the JobManager.
jobmanager.memory.process.size: 1600m
# The total process memory size for the TaskManager.
# Note this accounts for all memory usage within the TaskManager.
taskmanager.memory.process.size: 2048m
# To exclude JVM metaspace and overhead, please, use total Flink heap memory.
# It is not recommended to set both 'taskmanager.memory.process.size' and 'taskmanager.memory.flink.size'.
# taskmanager.memory.flink.size: 1280m
# The number of task slots that each TaskManager offers. Each slot represents a parallelism of 1.
taskmanager.numberOfTaskSlots: 4
# The parallelism used for programs that did not specify and
parallelism.default: 4
```

```
state.backend: filesystem
state.backend.fs.checkpointdir: hdfs://192.168.244.129:9000/flink-checkpoints
state.savepoints.dir: hdfs://192.168.244.129:9000/flink-savepoints
high-availability: zookeeper
high-availability.zookeeper.quorum: 192.168.244.129:2181
high-availability.storageDir: hdfs://192.168.244.129:9000/flink/ha/
high-availability.zookeeper.client.acl: open
```

2.4.2 配置 master

#修改主节点 ip 地址
192.168.244.129:8081

2.4.3 配置 work

#修改从节点 ip, 因为是 standalone-ha, 改另一个节点
192.168.244.130

2.4.4 配置 zoo

新建 snapshot 存放的目录, 在 flink-1.13.2 目录下建
mkdir tmp
cd tmp
mkdir zookeeper

#修改 conf 下 zoo.cfg 配置
vim zoo.cfg

#snapshot 存放的目录
dataDir=/home/liyaozhou/lyz/flink-1.13.2/tmp/zookeeper

#配置 zookeeper 地址
server.1=192.168.244.129:2888:3888

```
# The directory where the snapshot is stored.
dataDir=/home/liyaozhou/lyz/flink-1.13.2/tmp/zookeeper

# The port at which the clients will connect
clientPort=2181

# ZooKeeper quorum peers
server.1=192.168.244.129:2888:3888
# server.2=host:peer-port:leader-port
```

2.5、下载 hadoop 依赖包

下载地址：<https://flink.apache.org/downloads.html#additional-components>

将包复制到 flink-1.13.2/lib 目录下

```
[liyaozhou@hlinkui lib]$ ll
总用量 233148
-rw-r--r-- 1 liyaozhou liyaozhou 92314 9月 17 11:53 flink-csv-1.13.2.jar
-rw-r--r-- 1 liyaozhou liyaozhou 115016309 9月 17 11:53 flink-dist_2.11-1.13.2.jar
-rw-r--r-- 1 liyaozhou liyaozhou 148126 9月 17 11:53 flink-json-1.13.2.jar
-rw-r--r-- 1 liyaozhou liyaozhou 36309656 9月 17 13:56 flink-shaded-hadoop-2-uber-2.6.5-10.0.jar
-rw-r--r-- 1 liyaozhou liyaozhou 7709740 9月 17 11:53 flink-shaded-zookeeper-3.4.14.jar
-rw-r--r-- 1 liyaozhou liyaozhou 36420572 9月 17 11:53 flink-table_2.11-1.13.2.jar
-rw-r--r-- 1 liyaozhou liyaozhou 40981118 9月 17 11:53 flink-table-blink_2.11-1.13.2.jar
-rw-r--r-- 1 liyaozhou liyaozhou 67114 9月 17 11:53 log4j-1.2-api-2.12.1.jar
-rw-r--r-- 1 liyaozhou liyaozhou 276771 9月 17 11:53 log4j-api-2.12.1.jar
-rw-r--r-- 1 liyaozhou liyaozhou 1674433 9月 17 11:53 log4j-core-2.12.1.jar
-rw-r--r-- 1 liyaozhou liyaozhou 23518 9月 17 11:53 log4j-slf4j-impl-2.12.1.jar
[liyaozhou@hlinkui lib]$
```

2.6、文件传输

将主节点 flink 包复制到从节点

scp -r flink-1.13.2 192.168.244.130:/home/liyaozhou/lyz/

```
[liyaozhou@hlinkui flink-1.13.2]$ cd ..
[liyaozhou@hlinkui lyz]$ scp -r flink-1.13.2 192.168.244.130:/home/liyaozhou/lyz/
LICENSE
bash-java-utils.jar
mesos-appmaster-job.sh
stop-zookeeper-quorum.sh
mesos-appmaster.sh
historyserver.sh
flink-daemon.sh
flink
```

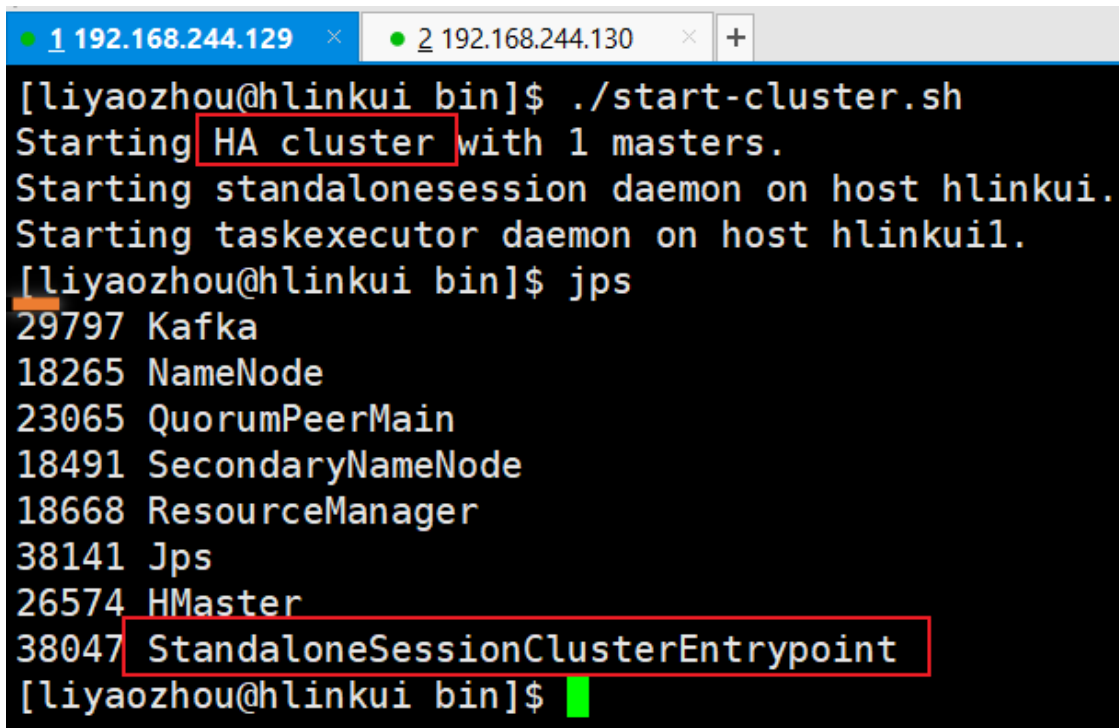
修改从节点 flink-conf.yaml rpc 的 ip 地址

```
jobmanager.rpc.address: 192.168.244.130
# The RPC port where the JobManager is reachable
jobmanager.rpc.port: 6123
# The total process memory size for the JobManager
```

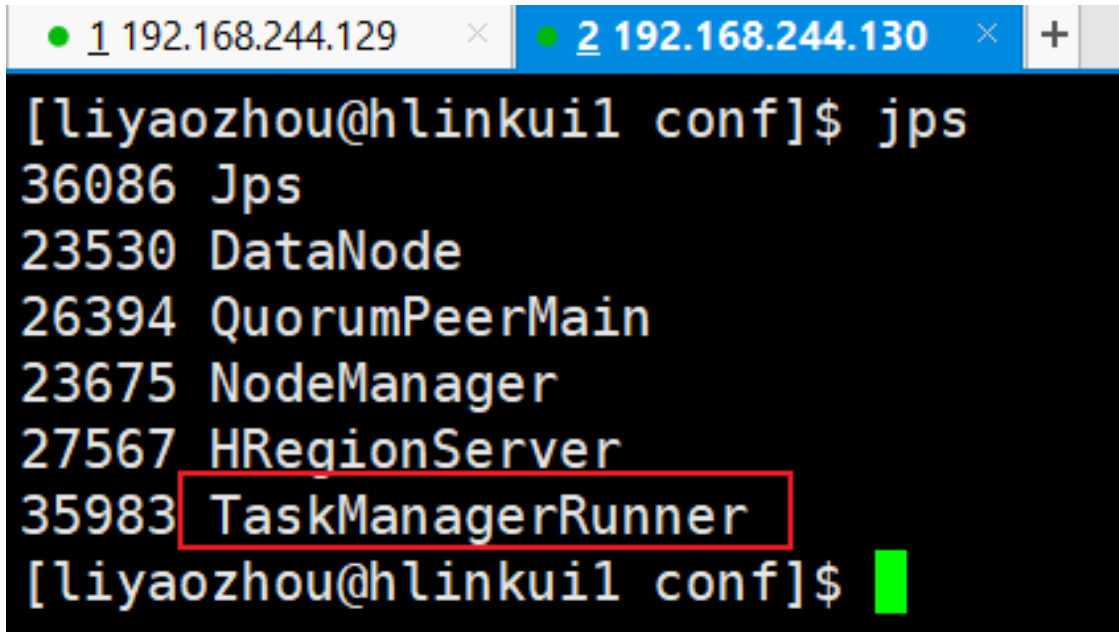
2.7、启动 Flink 集群

进入 flink-1.13.2/bin 目录下

./start-cluster.sh

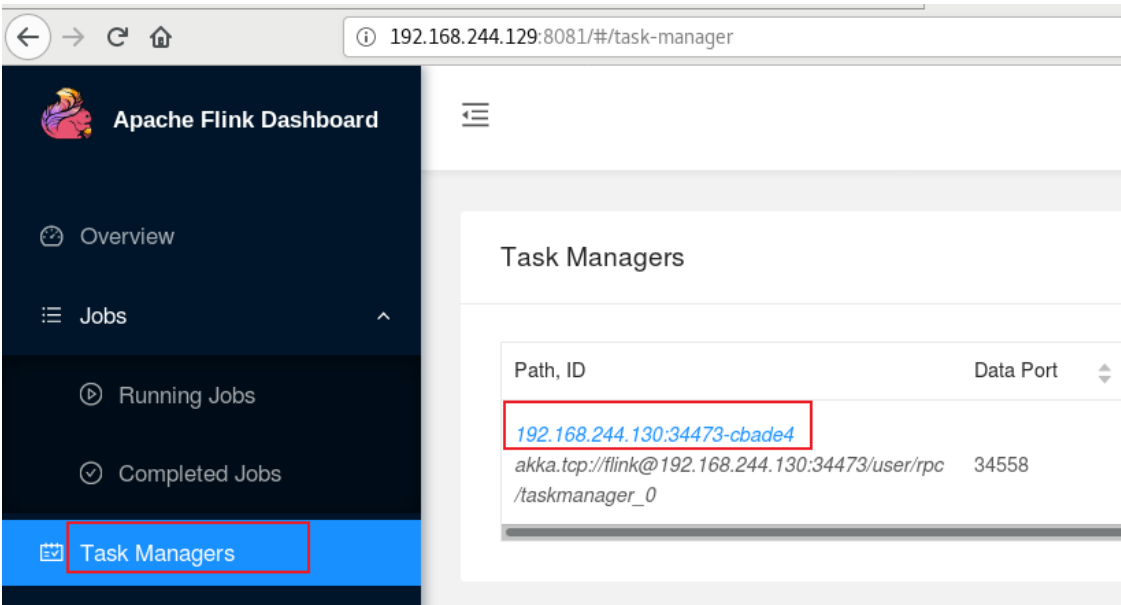


```
[liyaozhou@hlinkui bin]$ ./start-cluster.sh
Starting HA cluster with 1 masters.
Starting standalone session daemon on host hlinkui.
Starting task executor daemon on host hlinkui1.
[liyaozhou@hlinkui bin]$ jps
29797 Kafka
18265 NameNode
23065 QuorumPeerMain
18491 SecondaryNameNode
18668 ResourceManager
38141 Jps
26574 HMaster
38047 StandaloneSessionClusterEntrypoint
[liyaozhou@hlinkui bin]$
```



```
[liyaozhou@hlinkui1 conf]$ jps
36086 Jps
23530 DataNode
26394 QuorumPeerMain
23675 NodeManager
27567 HRegionServer
35983 TaskManagerRunner
[liyaozhou@hlinkui1 conf]$
```

可以在登录界面看到，TaskManager 的地址为 192.168.244.130



3、Flink On Yarn 集群部署

集群部署两节点

版本	主节点	从节点	部署方式
flink-1.13.2-bin-scala_2.11.tgz	192.168.244.129	192.168.244.130	yarn
hadoop 2.6.4	192.168.244.129	192.168.244.130	Distributed
zookeeper3.4.14	192.168.244.129	192.168.244.130	Distributed

前提是 zookeeper 和 hadoop 集群全部配置好

3.1 修改 Hadoop 集群的 yarn-site.xml 文件

YARN 模式下的 HA 需要注意一点，官方给出建议，必须要增加以下两项配置：
YARN 配置，修改 yarn-site.xml

```
<!-- master (JobManager) 失败重启的最大尝试次数-->
<property>
  <name>yarn.resourcemanager.am.max-attempts</name>
  <value>4</value>
  <description>
    The maximum number of application master execution attempts.
  </description>
</property>

<!-- 关闭 yarn 内存检查 -->
<!-- 是否启动一个线程检查每个任务正使用的虚拟内存量，如果任务超出分配值，则直接将其杀掉，默认为 true -->
```

<!-- 因为对于 flink 使用 yarn 模式下，很容易内存超标，这个时候 yarn 会自动杀掉 job，因此需要关掉-->

```
<property>
  <name>yarn.nodemanager.pmem-check-enabled</name>
  <value>>false</value>
</property>

<property>
  <name>yarn.nodemanager.vmem-check-enabled</name>
  <value>>false</value>
</property>
```

3.2 修改 flink conf 配置

在 flink-conf.yaml 中添加如下两项：

#用户提交作业失败时，重新执行次数

yarn.application-attempts: 4

#设置 Task 在所有节点平均分配

cluster.evently-spread-out-slots: true

```
state.backend: filesystem
state.backend.fs.checkpointdir: hdfs://192.168.244.129:9000/flink-checkpoints
state.savepoints.dir: hdfs://192.168.244.129:9000/flink-savepoints
high-availability: zookeeper
high-availability.zookeeper.quorum: 192.168.244.129:2181
high-availability.storageDir: hdfs://192.168.244.129:9000/flink/ha/
high-availability.zookeeper.client.acl: open

#用户提交作业失败时，重新执行次数
yarn.application-attempts: 4

#设置Task在所有节点平均分配
cluster.evently-spread-out-slots: true
```

3.3 启动测试（Session 模式）

3.3.1 启动 Flink 会话（在 192.168.244.129 上测试）

主节点中执行

bin/yarn-session.sh -d -jm 1024 -tm 1024 -s 8

-tm 表示每个 TaskManager 的内存大小

-s 表示每个 TaskManager 的 slots 数量

-d 表示以后台程序方式运行

```
[liyaozhou@hlinkui flink-1.13.2]$ clear
[liyaozhou@hlinkui flink-1.13.2]$ bin/yarn-session.sh -d -jm 1024 -tm 1024 -s 1
2021-09-17 15:22:36,064 INFO org.apache.flink.configuration.GlobalConfiguration
58.244.129
2021-09-17 15:22:36,067 INFO org.apache.flink.configuration.GlobalConfiguration
2021-09-17 15:22:36,067 INFO org.apache.flink.configuration.GlobalConfiguration
e, 1600m
2021-09-17 15:22:36,067 INFO org.apache.flink.configuration.GlobalConfiguration
```

3.3.2 登录 yarn 集群页面查看

登录网址：192.168.244.129:8088/cluster

Cluster Metrics

Apps Submitted	Apps Pending	Apps Running	Apps Completed	Containers Running	Memory Used	Memory Total	Memory Reserved	VCores Used	VCores Total	VCores Reserved	Active Nodes
1	0	1	0	1	1 GB	8 GB	0 B	1	8	0	1

Show 20 entries

ID	User	Name	Application Type	Queue	StartTime	FinishTime	State	FinalStatus
application_1631862788541_0001	liyaozhou	Flink session cluster	Apache Flink	default	Fri, 17 Sep 2021 07:22:41 GMT	N/A	RUNNING	UNDEFINED

Showing 1 to 1 of 1 entries

3.3.3 在 yarn 上提交任务 通过 session 模式

注意：此时提交的任务都通过该会话（Session）执行，不会再申请 yarn 资源

（1）创建一个 wordcount.txt 文本，随便早一些数据，然后放到 flink-1.13.2 下面，然后将该文件传到 hdfs 中

```
hadoop fs -copyFromLocal wordcount.txt /
```

```
drwxr-xr-x. 2 liyaozhou liyaozhou 4096 9月 17 11:53 bin
drwxr-xr-x. 2 liyaozhou liyaozhou 263 9月 17 15:20 conf
drwxr-xr-x. 7 liyaozhou liyaozhou 76 9月 17 11:53 examples
drwxr-xr-x. 2 liyaozhou liyaozhou 4096 9月 17 14:27 lib
-rw-r--r--. 1 liyaozhou liyaozhou 11357 9月 17 11:53 LICENSE
drwxr-xr-x. 2 liyaozhou liyaozhou 4096 9月 17 11:53 licenses
drwxr-xr-x. 2 liyaozhou liyaozhou 4096 9月 17 15:36 log
-rw-r--r--. 1 liyaozhou liyaozhou 455192 9月 17 11:53 NOTICE
drwxr-xr-x. 3 liyaozhou liyaozhou 4096 9月 17 11:53 opt
drwxr-xr-x. 10 liyaozhou liyaozhou 210 9月 17 11:53 plugins
-rw-r--r--. 1 liyaozhou liyaozhou 1309 9月 17 11:53 README.txt
drwxrwxr-x. 3 liyaozhou liyaozhou 23 9月 17 11:53 tmp
-rw-rw-r--. 1 liyaozhou liyaozhou 65 9月 17 15:37 wordcount.txt
[liyaozhou@hlinkui flink-1.13.2]$ hadoop fs -copyFromLocal wordcount.txt /
21/09/17 15:40:07 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
[liyaozhou@hlinkui flink-1.13.2]$
```

(2) 提交任务

192.168.244.129 中执行即可

```
bin/flink run examples/batch/WordCount.jar --input hdfs://192.168.244.1
29:9000/wordcount.txt
```

```
21/09/17 15:40:07 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where appli
[liyaozhou@hlinkui flink-1.13.2]$ bin/flink run examples/batch/WordCount.jar --input hdfs://192.168.244.129:9000/wordcount.txt
2021-09-17 15:43:47,573 INFO org.apache.flink.yarn.cli.FlinkYarnSessionCli [] - Found Yarn properties file under /tmp/.yarn-pr
hou.
2021-09-17 15:43:47,573 INFO org.apache.flink.yarn.cli.FlinkYarnSessionCli 提交命令 [] - Found Yarn properties file under /tmp/.yarn-pr
hou.
Printing result to stdout. Use --output to specify output path.
2021-09-17 15:43:48,700 WARN org.apache.flink.yarn.configuration.YarnLogConfigUtil [] - The configuration directory ('/home/liyaozhou/
2/conf') already contains a LOG4J config file.If you want to use logback, then please delete or rename the log configuration file.
2021-09-17 15:43:48,777 INFO org.apache.hadoop.yarn.client.RMProxy [] - Connecting to ResourceManager at /192.168.244.
2021-09-17 15:43:48,869 INFO org.apache.flink.yarn.YarnClusterDescriptor [] - No path for the flink jar passed. Using the lo
org.apache.flink.yarn.YarnClusterDescriptor to locate the jar
2021-09-17 15:43:48,893 INFO org.apache.flink.yarn.YarnClusterDescriptor [] - Found Web Interface hlinkui:37036 of applicat
n_1631862788541_0001'.
Job has been submitted with JobID c2df11125e2a72a940ba9b36f3d1710b
Program execution finished
Job with JobID c2df11125e2a72a940ba9b36f3d1710b has finished.
Job Runtime: 19565 ms
Accumulator Results:
- 3cf3a08f53ae4a0bd5ef41aead4374d7 (java.util.ArrayList) [14 elements]

(hhh,1)
(jj,1)
(lyz,3)
(euiy,1)
(ie,1)
(kkk,1)
(dhg,1)
(euw,1)
(ewio,1)
(sd,1)
```

3.3.3 查看 Hadoop 的 ApplicationManager 的 WEB-UI 页面

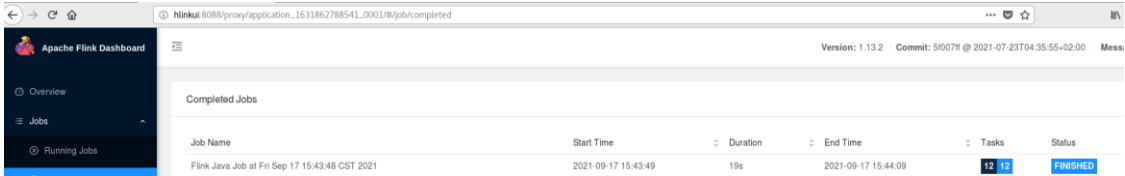
All Applications

Memory Total	Memory Reserved	VCores Used	VCores Total	VCores Reserved	Active Nodes	Decommissioned Nodes	Lost Nodes	Unhealthy Nodes	Recovery
GB	0 B	1	8	0	1	0	0	0	0

Search:

Job Name	StartTime	FinishTime	State	FinalStatus	Progress	Tracking UI	Blacklisted
Default	Fri, 17 Sep 2021 07:22:41 GMT	N/A	RUNNING	UNDEFINED		ApplicationMaster	0

点击此处跳转到Flink的监控页面



3.3.4 关闭 Session 模式

yarn application -kill application_1631862788541_0001


```
-status <Application ID> Prints the status of the application.
[liyaozhou@hlinkui flink-1.13.2]$ yarn application -kill application_1631862788541_0001
21/09/17 15:53:35 INFO client.RMPProxy: Connecting to ResourceManager at /192.168.244.129:8032
21/09/17 15:53:35 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform
Killing application application_1631862788541_0001
21/09/17 15:53:35 INFO impl.YarnClientImpl: Killed application application_1631862788541_0001
[liyaozhou@hlinkui flink-1.13.2]$ clear
[liyaozhou@hlinkui flink-1.13.2]$
```

3.4 启动测试（Per-job 模式）

3.4.1 直接提交 Job

```
# -m jobmanager 的地址
# -yjm 1024 指定 jobmanager 的内存信息
# -ytm 1024 指定 taskmanager 的内存信息
bin/flink run \
-t yarn-per-job -yjm 1024 -ytm 1024 \
--detached examples/batch/WordCount.jar \
--input hdfs://192.168.244.129:9000/wordcount.txt
```

```
flink/application_1631862788541_0006
[liyaozhou@hlinkui flink-1.13.2]$ bin/flink run -t yarn-per-job -yjm 1024 -ytm 1024 --detached examples/batch/WordCount.jar
2021-09-17 16:13:26,240 INFO  org.apache.flink.yarn.cli.FlinkYarnSessionCli      [] - Found Yarn properties file unc
hou.
2021-09-17 16:13:26,240 INFO  org.apache.flink.yarn.cli.FlinkYarnSessionCli      [] - Found Yarn properties file unc
hou.
Executing WordCount example with default input data set.
Use --input to specify file input.
Printing result to stdout. Use --output to specify output path.
2021-09-17 16:13:26,773 WARN  org.apache.flink.yarn.configuration.YarnLogConfigUtil    [] - The configuration directory (
```



All Applications

Cluster

About

Nodes

Applications

NEW

NEW SAVING

SUBMITTED

ACCEPTED

RUNNING

FINISHED

FAILED

KILLED

Scheduler

Cluster Metrics

Apps Submitted	Apps Pending	Apps Running	Apps Completed	Containers Running	Memory Used	Memory Total	Memory Reserved	VCores Used	VCores Total	VCores Reserved	Active Nodes
7	2	1	4	1	1 GB	8 GB	0 B	1	8	0	1

Show 20 entries

ID	User	Name	Application Type	Queue	StartTime	FinishTime	State	FinalStatus
application_1631862788541_0007	liyaozhou	Flink per-job cluster	Apache Flink	default	Fri, 17 Sep 2021 08:13:32 GMT	N/A	ACCEPTED	UNDEFINED

以上就是 Flink 集群安装的讲解内容！觉得好的，点赞，在看，分享三连击，谢谢！！！最近整理了一份计算机类的书籍，包含 python、java、大数据、人工智能、算法等，种类特别齐全。

获取方式：关注公众号：3 分钟秒懂大数据，回复：福利，就可以获得这份超级大礼！



扫码加入Flink流计算群
群若过期，加博主微信，拉你进群

