

# CentOS7 安装 Hive 2.3.4 (远程 Metastore Server 模式)

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原文链接: <https://ld246.com/article/1589880450384>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

## 分布式环境

继 [CentOS7 安装 HA 模式 HDFS 集群](#) 准备分布式环境，同时增加节点 node09 用于部署 metastore database。

host ervice	cpu	memory	ip
node01 ive client	1c	2G	10.4.96.4
node02 hrift server	1c	2G	10.4.96.5
node03	1c	1G	10.4.96.6
node04	1c	1G	10.4.96.7
node05	1c	1G	10.4.96.8
node06	1c	1G	10.4.96.9
node07	1c	1G	10.4.96.10
node08	1c	1G	10.4.96.11
node09 ysql	1c	1G	10.4.96.12

## 1. 安装 MySQL 服务端和客户端

### 1.1 添加 mysql5.7 仓库

```
[root@node09 ~]# rpm -ivh https://dev.mysql.com/get/mysql57-community-release-el7-11.0arch.rpm  
[root@node09 ~]# yum makecache fast
```

### 1.2 安装 MySQL

```
[root@node09 ~]# yum -y install mysql-community-server
```

### 1.3 启动

```
[root@node09 ~]# systemctl start mysqld
```

### 1.4 安全访问设置

- 查看默认 root 密码：

```
[root@node09 ~]# cat /var/log/mysqld.log | grep -i 'temporary password'
```

- 更改 root 密码，移除匿名用户：

```
[root@node09 ~]# mysql_secure_installation
```

- 移除 root 用户远程登录限制

```
[root@node09 ~]# mysql -hlocalhost -pAz123456_ -e "UPDATE mysql.user SET host='10.4.96%' WHERE user='root';FLUSH PRIVILEGES;"
```

## 2. 安装 Hive (远程 Metastore 模式)

<https://archive.apache.org/dist/hive/hive-2.3.4/apache-hive-2.3.4-bin.tar.gz>

<https://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.48/mysql-connector-java-5.1.48.jar>

### 2.1 安装应用

创建安装目录

```
[root@node01 ~]# for i in `seq 1 2`;do ssh root@node0$i "mkdir -p /opt/bigdata";done
```

下载解压到安装目录

```
[root@node01 ~]# for i in `seq 1 2`;do ssh root@node0$i "curl https://archive.apache.org/dist/hive/hive-2.3.4/apache-hive-2.3.4-bin.tar.gz | tar -C /opt/bigdata -zxf -";done
[root@node01 ~]# for i in `seq 1 2`;do ssh root@node0$i "mv /opt/bigdata/apache-hive-2.3.4 bin /opt/bigdata/hive-2.3.4";done
```

更改应用文件属主属组

```
[root@node01 ~]# for i in `seq 1 2`;do ssh root@node0$i "chown -R god:root /opt/bigdata/hive-2.3.4";done
```

配置环境变量

```
[root@node01 ~]# for i in `seq 1 2`;do ssh root@node0$i "sed -i '\$a\nexport HIVE_HOME=/opt/bigdata/hive-2.3.4\nexport PATH=\$PATH:\$HIVE_HOME/bin'\n/etc/profile";done
[root@node01 ~]# for i in `seq 1 2`;do ssh root@node0$i "source /etc/profile";done
```

### 2.2 配置应用

node02 配置

配置 `hive-site.xml` 文件, 特别注意jdbc URL中 & 的转义问题

```
[root@node02 conf]# pwd
/opt/bigdata/hive-2.3.4/conf
[root@node02 conf]# cp hive-default.xml.template hive-site.xml
```

```
[root@node02 conf]# vim hive-site.xml
```

```
...
<configuration>
  <property>
    <name>hive.metastore.warehouse.dir</name>
    <value>/user/hive_remote/warehouse</value>
  </property>
```

```

<property>
  <name>javax.jdo.option.ConnectionURL</name>
  <value>jdbc:mysql://node09:3306/hive_remote?createDatabaseIfNotExist=true&verifyServerCertificate=false&useSSL=false</value>
</property>

<property>
  <name>javax.jdo.option.ConnectionDriverName</name>
  <value>com.mysql.jdbc.Driver</value>
</property>

<property>
  <name>javax.jdo.option.ConnectionUserName</name>
  <value>root</value>
</property>

<property>
  <name>javax.jdo.option.ConnectionPassword</name>
  <value>Az123456_</value>
</property>
</configuration>

```

将 mysql-connector-java-5.1.48.jar 拷贝到 hive home 的 lib 目录下，以支持 hive 对 mysql 的连接操作。

```

[root@node02 lib]# pwd
/opt/bigdata/hive-2.3.4/lib
[root@node02 lib]# wget https://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.8/mysql-connector-java-5.1.48.jar

```

node01 配置

配置 `hive-site.xml` 文件

```

[root@node01 conf]# pwd
/opt/bigdata/hive-2.3.4/conf
[root@node01 conf]# cp hive-default.xml.template hive-site.xml

```

```

[root@node01 conf]# vim hive-site.xml

```

```

...
<configuration>
  <property>
    <name>hive.metastore.warehouse.dir</name>
    <value>/user/hive_remote/warehouse</value>
  </property>

  <property>
    <name>hive.metastore.uris</name>
    <value>thrift://node02:9083</value>
  </property>
</configuration>

```

Hive 2.1 之后版本要执行的初始命令

```

[root@node02 ~]# schematool -dbType mysql -initSchema

```

```
[root@node09 ~]# mysql -h10.4.96.12 -pAz123456_ -e "show databases;"
mysql: [Warning] Using a password on the command line interface can be insecure.
+-----+
| Database      |
+-----+
| information_schema |
| hive_remote    |
| mysql          |
| performance_schema |
| sys            |
+-----+
```

## 2.3 启动 hive server

node02 启动 Thrift server

```
[root@node02 ~]# screen -S thrift
[root@node02 ~]# hive --service metastore
2020-05-19 16:57:37: Starting Hive Metastore Server
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/opt/bigdata/hive-2.3.4/lib/log4j-slf4j-impl-2.6.2.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/opt/bigdata/hadoop-2.6.5/share/hadoop/common/lib/slf4j-log4j12-1.7.5.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.apache.logging.slf4j.Log4jLoggerFactory]
```

此时窗口阻塞住了，按 <Ctrl + a + d> 组合键跳出 screen

## 2.4 测试 hive

注意切换到 god 用户了，因为 hdfs 是用 god 用户启动的，参照前面的文章。真烦，默认用 root 就得了~

Hive-on-MR 在 Hive 2 中已弃用，在以后的版本中可能不可用。考虑使用其他执行引擎（例如 spark, tez）或使用 Hive 1.X 版本。

```
[god@node01 ~]# hive
...
Logging initialized using configuration in jar:file:/opt/bigdata/hive-2.3.4/lib/hive-common-2.3.4.jar!/hive-log4j2.properties Async: true
Hive-on-MR is deprecated in Hive 2 and may not be available in the future versions. Consider using a different execution engine (i.e. spark, tez) or using Hive 1.X releases.
hive>
```

## 3. 简单操作

- 创建表

```
hive> create EXTERNAL TABLE w_a
> (
> id INT,
```

```
> age INT,  
> sex INT  
> )  
> ROW FORMAT DELIMITED FIELDS TERMINATED BY '\t'  
> LINES TERMINATED BY '\n';
```

OK

Time taken: 1.33 seconds

```
hive> show tables;
```

OK

```
w_a
```

Time taken: 0.082 seconds, Fetched: 1 row(s)

此时 hive 会在 hdfs 中创建对应目录

```
[god@node01 ~]$ hadoop fs -ls /user/hive_remote/warehouse
```

Found 1 items

```
drwxr-xr-x - god supergroup      0 2020-05-18 18:49 /user/hive/warehouse/w_a
```