

HBASE INSTALLATION AND CONFIGURATION

This document explains the procedure to setup HBASE. You are expected to know basic UNIX commands and VI editor commands. If you are not familiar with UNIX and vi commands, you should brush up your UNIX basics before proceeding.

Requirements

- Java 1.6 or above
- Hadoop 1.0.3

1. Installing Hbase from a release

Start by downloading the most recent stable release of Sqoop from one of the Apache download mirrors

The version which we are going to download is HBASE-0.94.15

Move the Hbase version in the Downloads folder to /usr/hadoop-inst directory

```
sudo mv /<path in which sqoop tar file is downloaded>/ hbase-0.94.15.tar.gz /usr/hadoop-inst/hadoop-1.0.3
```

Extract the tar file, you should be in usr/hadoop-inst/hadoop-1.0.3 directory

```
sudo tar xzf hbase-0.94.15
```

Set the environment variable HBASE_HOME to point to the installation directory (in bash.rc file).

```
export HBASE_HOME=/usr/hadoop-inst/hadoop-1.0.3/hbase-0.94.15
```

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

2) Update hbase-env.sh file:

Navigate to hbase/conf directory and update with the below statements.

```
export JAVA_HOME=/usr/lib/jvm/java-6-oracle
```

```
export HBASE_MANAGES_ZK=true
```

3) Update hbase-site.xml in HBASE/CONF folder

```
<configuration>
```

```
<property>
```

```
<name>hbase.rootdir</name>
```

```
<value>hdfs://localhost:54310/hbase</value>
```

```
</property>
```

```
<property>
```

```
<name>hbase.cluster.distributed</name>
```

```
<value>true</value>
```

```
</property>
```

```
<property>
```

```
<name>hbase.zookeeper.quorum</name>
```

```

<value>localhost</value>
</property>
<property>
<name>dfs.replication</name>
<value>1</value>
</property>
<property>
<name>hbase.zookeeper.property.clientPort</name>
<value>2181</value>
</property>
<property>
<name>hbase.zookeeper.property.dataDir</name>
<value>/home/<YOUR USERNAME> ex
:geetha/hbase/zookeeper</value>
</property>
</configuration>

```

4) Start HBASE services:

bin/start-hbase.sh

sample o/p4)

```

geetha@ubuntu:/usr/hadoop-inst/hadoop-1.0.3/hbase-0.94.15$ bin/start-hbase.sh
localhost: starting zookeeper, logging to /usr/hadoop-inst/hadoop-1.0.3/hbase-0.
starting master, logging to /usr/hadoop-inst/hadoop-1.0.3/hbase-0.94.15/logs/hba
localhost: starting regionserver, logging to /usr/hadoop-inst/hadoop-1.0.3/hbase
geetha@ubuntu:/usr/hadoop-inst/hadoop-1.0.3/hbase-0.94.15$ jps
3827 JobTracker
8119 HMaster
3734 SecondaryNameNode
4067 TaskTracker
3490 DataNode
8503 Jps
8048 HQuorumPeer
8405 HRegionServer
3229 NameNode

```

4) Web interface for HBASE:

<http://ubuntu:60010/master-status>

The screenshot displays the HBase Master web interface in a Mozilla Firefox browser. The page title is "Master: ubuntu:60000". Below the title are links for "Local logs", "Thread Dump", "Log Level", and "Debug dump".

Attributes

Attribute Name	Value	Description
HBase Version	0.94.15, r1551829	HBase version and revision
HBase Compiled	Wed Dec 18 22:35:57 UTC 2013, jenkins	When HBase version was compiled and by whom
Hadoop Version	1.0.4, r1393290	Hadoop version and revision
Hadoop Compiled	Thu Oct 4 20:40:32 UTC 2012, hortonfo	When Hadoop version was compiled and by whom
HBase Root Directory	hdfs://localhost:54310/hbase	Location of HBase home directory
Zookeeper Quorum	localhost:2181	Addresses of all registered ZK servers. For more, see zk dump .
HMaster Start Time	Mon Aug 24 16:32:42 PDT 2015	Date stamp of when this HMaster was started
HMaster Active Time	Mon Aug 24 16:32:44 PDT 2015	Date stamp of when this HMaster became active
Load average	2	Average number of regions per regionserver. Naive computation.
HBase Cluster ID	5044bd6c-7c6d-40ca-9648-df2d5b295644	Unique identifier generated for each HBase cluster
Coprocessors	[]	Coprocessors currently loaded loaded by the master

Tasks

[Show All Monitored Tasks](#) [Show non RPC Tasks](#) [Show All RPC Handler Tasks](#) [Show Active RPC Calls](#) [Show Client Operations](#) [View as JSON](#)

Start Time	Description	State	Status
Mon Aug 24 16:32:46 PDT 2015	Closing region .META.,1.1028765192	COMPLETE (since 17sec ago)	Closed (since 17sec ago)
Mon Aug 24 16:32:46 PDT 2015	Closing region -ROOT-,0.70236052	COMPLETE (since 17sec ago)	Closed (since 17sec ago)
Mon Aug 24 16:32:46 PDT 2015	Initializing region .META.,1.1028765192	COMPLETE (since 17sec ago)	Region opened successfully (since 17sec ago)
Mon Aug 24 16:32:46 PDT 2015	Initializing region -ROOT-,0.70236052	COMPLETE (since 17sec ago)	Region opened successfully (since 17sec ago)
Mon Aug 24 16:32:42 PDT 2015	Master startup	COMPLETE (since 6sec ago)	Initialization successful (since 6sec ago)

Tables

Catalog Table	Description
-ROOT-	The -ROOT- table holds references to all .META. regions.
.META.	The .META. table holds references to all User Table regions

Region Servers

ServerName	Start time	Load
ubuntu.60020.1440459159314	Mon Aug 24 16:32:39 PDT 2015	requestsPerSecond=0, numberOfOnlineRegions=2, usedHeapMB=36, maxHeapMB=997
Total: servers: 1		requestsPerSecond=0, numberOfOnlineRegions=2

Load is requests per second and count of regions loaded

5) Stopping HBASE services:

`bin/stop-hbase.sh`