

```
10.10.15.183  Namenode
10.10.15.154  Datanode1
10.10.15.187  Datanode2
```

1. Download Hadoop, JDK and Ant.

```
ssh 10.10.15.183
mkdir /home/hadoop
cd /home/hadoop/
wget http://dlab.csu.edu.cn/cloudcomputing2016/download/hadoop.tar.gz
tar -zxvf hadoop.tar.gz
mkdir /home/jdk
cd /home/jdk/
wget http://dlab.csu.edu.cn/cloudcomputing2016/download/jdk.tar.gz
tar -zxvf jdk.tar.gz
mkdir /home/ant
cd /home/ant
wget http://dlab.csu.edu.cn/cloudcomputing2016/download/apache-ant.tar.gz
tar -zxvf apache-ant.tar.gz
```

2. Set bash profile

```
vi ~/.bash_profile
add the settings:
```

```
#export PATH
export JAVA_HOME=/home/jdk/jdk1.7.0_75
export JAVA_JRE=/home/jdk/jdk1.7.0_75/jre
export ANT_HOME=/home/ant/apache-ant-1.9.4
export HADOOP_HOME=/home/hadoop/hadoop-2.6.0

# path
export PATH=$HADOOP_HOME/bin:$HADOOP_HOME/sbin:$PATH
export PATH=$JAVA_HOME/bin:$PATH
export PATH=$PATH:$ANT_HOME/bin
```

```
source ~/.bash_profile
```

3. Modify Hadoop configure files

```
cd $HADOOP_HOME
mkdir tmp
mkdir namenode
mkdir datanode
cd etc/hadoop/
vi core-site.xml
```

```
<configuration>
<property>
```

```
<name>fs.default.name</name>
<value>hdfs://Namenode:9000</value>
</property>
<property>
<name>hadoop.tmp.dir</name>
<value>/home/hadoop/hadoop-2.6.0/tmp/hadoop-${user.name}</value>
</property>
</configuration>
```

vi hdfs-site.xml

```
<configuration>
<property>
<name>dfs.replication</name>
<value>2</value>
</property>
<property>
<name>dfs.namenode.name.dir</name>
<value>/home/hadoop/hadoop-2.6.0/namenode/name_1,
/home/hadoop/hadoop-2.6.0/namenode/name_2</value>
</property>
<property>
<name>dfs.datanode.data.dir</name>
<value>/home/hadoop/hadoop-2.6.0/datanode/data_1,
/home/hadoop/hadoop-2.6.0/datanode/data_2</value>
</property>
</configuration>
```

vi mapred-site.xml

```
<configuration>
<property>
<name>mapred.job.tracker</name>
<value>Namenode:9001</value>
</property>
</configuration>
```

vi hadoop-env.sh

```
export JAVA_HOME=/home/jdk/jdk1.7.0_75
```

vi slaves

```
Datanode1
Datanode2
```

4. Set no-password network connections among the three nodes

Login each node, modify the name as follows:

```
10.10.15.183  Namenode
10.10.15.154  Datanode1
10.10.15.187  Datanode2
```

```
ssh 10.10.15.183
```

```
vi /etc/hostname
```

```
Namenode
```

```
ssh 10.10.15.154
```

```
vi /etc/hostname
```

```
Datanode1
```

```
exit
```

```
ssh 10.10.15.187
```

```
vi /etc/hostname
```

```
Datanode2
```

```
exit
```

```
vi /etc/hosts
```

```
10.10.15.183  Namenode
10.10.15.154  Datanode1
10.10.15.187  Datanode2
```

```
scp /etc/hosts root@10.10.15.154:/etc/hosts
```

```
scp /etc/hosts root@10.10.15.187:/etc/hosts
```

```
scp ~/.bash_profile root@10.10.15.154:~/.bash_profile
```

```
scp ~/.bash_profile root@10.10.15.187:~/.bash_profile
```

generate rsa keys on the three nodes(Namenode, Datanode1, Datanode2):

```
ssh-keygen -t rsa (just input three enters)
```

```
ssh Datanode1
```

```
ssh-keygen -t rsa (just input three enters)
```

```
scp /root/.ssh/id_rsa.pub root@Namenode:/root/.ssh/id_rsa.pub.Datanode1
```

```
ssh Datanode2
```

```
ssh-keygen -t rsa (just input three enters)
```

```
scp /root/.ssh/id_rsa.pub root@Namenode:/root/.ssh/id_rsa.pub.Datanode2
```

```
ssh Namenode
```

```
cd /root/.ssh
```

```
cat id_rsa.pub >> authorized_keys
```

```
cat id_rsa.pub.Datanode1 >> authorized_keys
```

```
cat id_rsa.pub.Datanode2 >> authorized_keys
```

```
chmod 644 authorized_keys (important!!!)
scp ~/.ssh/authorized_keys root@Datanode1:/root/.ssh/authorized_keys
scp ~/.ssh/authorized_keys root@Datanode2:/root/.ssh/authorized_keys
```

test the connections:

```
ssh Datanode1
service iptables stop
ssh Datanode2
service iptables stop
ssh Namenode
service iptables stop
exit
exit
exit
```

5. Start hadoop

```
scp -r /home/hadoop/ root@Datanode1:/home/hadoop
scp -r /home/hadoop/ root@Datanode2:/home/hadoop
scp -r /home/jdk/ root@Datanode1:/home/jdk
scp -r /home/jdk/ root@Datanode2:/home/jdk
```

```
cd $HADOOP_HOME
cd etc/hadoop
hdfs namenode -format
start-all.sh
hdfs dfsadmin -report
jps
```