## 一．磁盘分区

1. [root@hadoop ~]# fdisk /dev/sdb

WARNING: DOS-compatible mode is deprecated. It's strongly recommended to

switch off the mode (command 'c') and change display units to

sectors (command 'u').

Command (m for help): p

Disk /dev/sdb: 599.6 GB, 599550590976 bytes

255 heads, 63 sectors/track, 72891 cylinders

Units = cylinders of 16065 \* 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00048cfb

Device Boot Start End Blocks Id System

Command (m for help): n

Command action

e extended

p primary partition (1-4)

p

Partition number (1-4): 1

First cylinder (1-72891, default 1):

Using default value 1

Last cylinder, +cylinders or +size{K,M,G} (1-72891, default 72891):

Using default value 72891

Command (m for help): t

Selected partition 1

Hex code (type L to list codes): 8e

Changed system type of partition 1 to 8e (Linux LVM)

Command (m for help): p

Disk /dev/sdb: 599.6 GB, 599550590976 bytes

255 heads, 63 sectors/track, 72891 cylinders

Units = cylinders of 16065 \* 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00048cfb

Device Boot Start End Blocks Id System

/dev/sdb1 1 72891 585496926 8e Linux LVM

Command (m for help): w

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

1. [root@hadoop ~]# fdisk /dev/sdc

WARNING: DOS-compatible mode is deprecated. It's strongly recommended to

switch off the mode (command 'c') and change display units to

sectors (command 'u').

Command (m for help): n

Command action

e extended

p primary partition (1-4)

p

Partition number (1-4): 1

First cylinder (1-72891, default 1):

Using default value 1

Last cylinder, +cylinders or +size{K,M,G} (1-72891, default 72891):

Using default value 72891

Command (m for help): t

Selected partition 1

Hex code (type L to list codes): 8e

Changed system type of partition 1 to 8e (Linux LVM)

Command (m for help): p

Disk /dev/sdc: 599.6 GB, 599550590976 bytes

255 heads, 63 sectors/track, 72891 cylinders

Units = cylinders of 16065 \* 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x00019a72

Device Boot Start End Blocks Id System

/dev/sdc1 1 72891 585496926 8e Linux LVM

Command (m for help): w

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

1. [root@hadoop ~]# fdisk /dev/sdd

WARNING: DOS-compatible mode is deprecated. It's strongly recommended to

switch off the mode (command 'c') and change display units to

sectors (command 'u').

Command (m for help): n

Command action

e extended

p primary partition (1-4)

p

Partition number (1-4): 1

First cylinder (1-72891, default 1):

Using default value 1

Last cylinder, +cylinders or +size{K,M,G} (1-72891, default 72891):

Using default value 72891

Command (m for help): t

Selected partition 1

Hex code (type L to list codes): 8e

Changed system type of partition 1 to 8e (Linux LVM)

Command (m for help): w

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

1. [root@hadoop ~]# fdisk /dev/sde

WARNING: DOS-compatible mode is deprecated. It's strongly recommended to

switch off the mode (command 'c') and change display units to

sectors (command 'u').

Command (m for help): n

Command action

e extended

p primary partition (1-4)

p

Partition number (1-4): 1

First cylinder (1-72891, default 1):

Using default value 1

Last cylinder, +cylinders or +size{K,M,G} (1-72891, default 72891):

Using default value 72891

Command (m for help): t

Selected partition 1

Hex code (type L to list codes): 8e

Changed system type of partition 1 to 8e (Linux LVM)

Command (m for help): p

Disk /dev/sde: 599.6 GB, 599550590976 bytes

255 heads, 63 sectors/track, 72891 cylinders

Units = cylinders of 16065 \* 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x000a6d23

Device Boot Start End Blocks Id System

/dev/sde1 1 72891 585496926 8e Linux LVM

Command (m for help): w

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

1. [root@hadoop ~]# fdisk /dev/sdf

WARNING: DOS-compatible mode is deprecated. It's strongly recommended to

switch off the mode (command 'c') and change display units to

sectors (command 'u').

Command (m for help): n

Command action

e extended

p primary partition (1-4)

p

Partition number (1-4): 1

First cylinder (1-72891, default 1):

Using default value 1

Last cylinder, +cylinders or +size{K,M,G} (1-72891, default 72891):

Using default value 72891

Command (m for help): t

Selected partition 1

Hex code (type L to list codes): 8e

Changed system type of partition 1 to 8e (Linux LVM)

Command (m for help): p

Disk /dev/sdf: 599.6 GB, 599550590976 bytes

255 heads, 63 sectors/track, 72891 cylinders

Units = cylinders of 16065 \* 512 = 8225280 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk identifier: 0x000743c4

Device Boot Start End Blocks Id System

/dev/sdf1 1 72891 585496926 8e Linux LVM

Command (m for help): w

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

1. [root@hadoop ~]# pvcreate /dev/sdb1

Physical volume "/dev/sdb1" successfully created

1. [root@hadoop ~]# pvcreate /dev/sdc1

Physical volume "/dev/sdc1" successfully created

1. [root@hadoop ~]# pvcreate /dev/sdd1

Physical volume "/dev/sdd1" successfully created

1. [root@hadoop ~]# pvcreate /dev/sde1

Physical volume "/dev/sde1" successfully created

1. [root@hadoop ~]# pvcreate /dev/sdf1

Physical volume "/dev/sdf1" successfully created

1. [root@hadoop ~]# vgcreate VG\_HADOOP /dev/sdb1

Volume group "VG\_HADOOP" successfully created

1. [root@hadoop ~]# vgextend VG\_HADOOP /dev/sdc1

Volume group "VG\_HADOOP" successfully extended

1. [root@hadoop ~]# vgextend VG\_HADOOP /dev/sdd1

Volume group "VG\_HADOOP" successfully extended

1. [root@hadoop ~]# vgextend VG\_HADOOP /dev/sde1

Volume group "VG\_HADOOP" successfully extended

1. [root@hadoop ~]# vgextend VG\_HADOOP /dev/sdf1

Volume group "VG\_HADOOP" successfully extended

1. [root@hadoop ~]# vgdisplay VG\_HADOOP

--- Volume group ---

VG Name VG\_HADOOP

System ID

Format lvm2

Metadata Areas 5

Metadata Sequence No 5

VG Access read/write

VG Status resizable

MAX LV 0

Cur LV 0

Open LV 0

Max PV 0

Cur PV 5

Act PV 5

VG Size 2.73 TiB

PE Size 4.00 MiB

Total PE 714715

Alloc PE / Size 0 / 0

Free PE / Size 714715 / 2.73 TiB

VG UUID SwtFHq-0CUD-dxx0-T2IK-Lrql-k2In-32GDDF

1. [root@hadoop ~]# lvcreate -l 714715 -n LV\_HADOOP VG\_HADOOP

Logical volume "LV\_HADOOP" created

1. [root@hadoop ~]# lvdisplay LV\_HADOOP

Volume group "LV\_HADOOP" not found

Skipping volume group LV\_HADOOP

1. [root@hadoop ~]# lvdisplay /dev/VG\_HADOOP/LV\_HADOOP

--- Logical volume ---

LV Path /dev/VG\_HADOOP/LV\_HADOOP

LV Name LV\_HADOOP

VG Name VG\_HADOOP

LV UUID KsN5F1-mVGA-ipiq-Y3KB-jscg-EfaU-OV6NeR

LV Write Access read/write

LV Creation host, time hadoop, 2014-08-27 01:36:15 +0800

LV Status available

# open 0

LV Size 2.73 TiB

Current LE 714715

Segments 5

Allocation inherit

Read ahead sectors auto

- currently set to 256

Block device 253:5

1. [root@hadoop ~]# mkfs -t ext4 /dev/VG\_HADOOP/LV\_HADOOP

mke2fs 1.41.12 (17-May-2010)

Filesystem label=

OS type: Linux

Block size=4096 (log=2)

Fragment size=4096 (log=2)

Stride=0 blocks, Stripe width=0 blocks

182968320 inodes, 731868160 blocks

36593408 blocks (5.00%) reserved for the super user

First data block=0

Maximum filesystem blocks=4294967296

22335 block groups

32768 blocks per group, 32768 fragments per group

8192 inodes per group

Superblock backups stored on blocks:

32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,

4096000, 7962624, 11239424, 20480000, 23887872, 71663616, 78675968,

102400000, 214990848, 512000000, 550731776, 644972544

Writing inode tables: done

Creating journal (32768 blocks): done

Writing superblocks and filesystem accounting information: done

This filesystem will be automatically checked every 27 mounts or

180 days, whichever comes first. Use tune2fs -c or -i to override.

1. [root@hadoop ~]# mkdir /hadoopdata
2. [root@hadoop ~]# mount /dev/VG\_HADOOP/LV\_HADOOP /hadoopdata/
3. [root@hadoop ~]# df -h

Filesystem Size Used Avail Use% Mounted on

/dev/mapper/VG00-lv\_root 50G 1.3G 46G 3% /

tmpfs 16G 0 16G 0% /dev/shm

/dev/sda1 194M 34M 150M 19% /boot

/dev/mapper/VG00-lv\_data 387G 199M 367G 1% /data

/dev/mapper/VG00-lv\_opt 50G 180M 47G 1% /opt

/dev/mapper/VG00-lv\_usr\_local 50G 180M 47G 1% /usr/local

/dev/mapper/VG\_HADOOP-LV\_HADOOP 2.7T 201M 2.6T 1% /hadoopdata

修改fstab：

## 二．配置机器名

[root@hadoop ~]# vim /etc/hosts

添加：

10.110.0.202 nn01.hadoop nn01

10.110.0.203 nn02.hadoop nn02

10.110.0.204 dn01.hadoop dn01

10.110.0.215 dn02.hadoop dn02

10.110.0.216 dn03.hadoop dn03

10.110.0.217 dn04.hadoop dn04

修改各机器主机名与上面一致

[root@hadoop data]# vim /etc/sysconfig/network

## 三．禁用SWAP

[root@hadoop ~]# echo 0 > /proc/sys/vm/swappiness

[root@hadoop data]# vim /etc/sysctl.conf

添加：vm.swappiness = 0

## 四．安装JDK

上传jdk-7u67-linux-x64.tar.gz

[root@hadoop data]# tar zxvf jdk-7u67-linux-x64.tar.gz

[root@hadoop ~]# mv /data/jdk1.7.0\_67/ /var/jdk1.7

[root@hadoop ~]# vim /etc/profile

添加：

# env for jdk

JAVA\_HOME=/var/jdk1.7

PATH=$JAVA\_HOME/bin:$PATH

CLASSPATH=.:$JAVA\_HOME/lib/dt.jar:$JAVA\_HOME/lib/tools.jar:$CLASSPATH

## 五．添加本地YUM源

Cm本地源

下载cm5.1.1-centos6.tar.gz，地址：<http://archive-primary.cloudera.com/cm5/repo-as-tarball/5.1.1/>；

[hadoop@physical ~]$ cd /var/www/html/

[hadoop@physical html]$ sudo tar zxvf cm5.1.1-centos6.tar.gz

[hadoop@physical html]$ sudo vim /etc/yum.repos.d/my-cm.repo

[mycmrepo]

name=mycmrepo

baseurl=http://dn04.hadoop/cm/5

enabled=1

gpgcheck=0

Cdh本地源：

下载[CDH-5.1.0-1.cdh5.1.0.p0.53-el6.parcel](http://archive.cloudera.com/cdh5/parcels/latest/CDH-5.1.0-1.cdh5.1.0.p0.53-el6.parcel)和[manifest.json](http://archive.cloudera.com/cdh5/parcels/latest/manifest.json)，地址：<http://archive.cloudera.com/cdh5/parcels/latest/>；

[hadoop@physical html]$ sudo mkdir cdh5.1

[hadoop@physical html]$ sudo mv manifest. json cdh5.1/manifest.json

## 六．安装MYSQL

在dn04上安装MYSQL服务器，修改/etc/my.cnf如下：

[root@dn04 ~]# vim /etc/my.cnf

[mysqld]

transaction-isolation=READ-COMMITTED

# Disabling symbolic-links is recommended to prevent assorted security risks;

# to do so, uncomment this line:

# symbolic-links=0

key\_buffer = 16M

key\_buffer\_size = 32M

max\_allowed\_packet = 32M

thread\_stack = 256K

thread\_cache\_size = 64

query\_cache\_limit = 8M

query\_cache\_size = 64M

query\_cache\_type = 1

max\_connections = 550

# log-bin should be on a disk with enough free space

# NOTE: replace '/x/home/mysql/logs/binary' below with

# an appropriate path for your system.

log-bin=/data/mysql/logs/binary/mysql\_binary\_log

# For MySQL version 5.1.8 or later. Comment out binlog\_format for older versions.

binlog\_format = mixed

read\_buffer\_size = 2M

read\_rnd\_buffer\_size = 16M

sort\_buffer\_size = 8M

join\_buffer\_size = 8M

# InnoDB settings

innodb\_file\_per\_table = 1

innodb\_flush\_log\_at\_trx\_commit = 2

innodb\_log\_buffer\_size = 64M

innodb\_buffer\_pool\_size = 4G

innodb\_thread\_concurrency = 8

innodb\_flush\_method = O\_DIRECT

innodb\_log\_file\_size = 512M

datadir=/data/mysql

socket=/data/mysql/mysql.sock

user=mysql

# Disabling symbolic-links is recommended to prevent assorted security risks

# symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mysqld.log

pid-file=/var/run/mysqld/mysqld.pid

[root@dn04 ~]# mysql\_install\_db --user=mysql --ldata=/data/mysql/

[root@dn04 ~]# ln -s /data/mysql/mysql.sock /var/lib/mysql/mysql.sock

[root@dn04 ~]# mysql\_secure\_installation

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MySQL

SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!

In order to log into MySQL to secure it, we'll need the current

password for the root user. If you've just installed MySQL, and

you haven't set the root password yet, the password will be blank,

so you should just press enter here.

Enter current password for root (enter for none):

OK, successfully used password, moving on...

Setting the root password ensures that nobody can log into the MySQL

root user without the proper authorisation.

Set root password? [Y/n] yes

New password:

Re-enter new password:

Password updated successfully!

Reloading privilege tables..

... Success!

By default, a MySQL installation has an anonymous user, allowing anyone

to log into MySQL without having to have a user account created for

them. This is intended only for testing, and to make the installation

go a bit smoother. You should remove them before moving into a

production environment.

Remove anonymous users? [Y/n] Y

... Success!

Normally, root should only be allowed to connect from 'localhost'. This

ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] Y

... Success!

By default, MySQL comes with a database named 'test' that anyone can

access. This is also intended only for testing, and should be removed

before moving into a production environment.

Remove test database and access to it? [Y/n] Y

- Dropping test database...

... Success!

- Removing privileges on test database...

... Success!

Reloading the privilege tables will ensure that all changes made so far

will take effect immediately.

Reload privilege tables now? [Y/n] Y

... Success!

Cleaning up...

All done! If you've completed all of the above steps, your MySQL

installation should now be secure.

Thanks for using MySQL!

Mysql建表：

mysql> create database amon DEFAULT CHARACTER SET utf8;

Query OK, 1 row affected (0.00 sec)

mysql> create database rman DEFAULT CHARACTER SET utf8;

Query OK, 1 row affected (0.00 sec)

mysql> create database nav DEFAULT CHARACTER SET utf8;

Query OK, 1 row affected (0.00 sec)

mysql> create database metastore DEFAULT CHARACTER SET utf8;

Query OK, 1 row affected (0.00 sec)

mysql> grant all on amon.\* TO 'amon'@'%' IDENTIFIED BY 'amon';

Query OK, 0 rows affected (0.00 sec)

mysql> grant all on rman.\* TO 'rman'@'%' IDENTIFIED BY 'rman';

Query OK, 0 rows affected (0.00 sec)

mysql> grant all on nav.\* TO 'nav'@'%' IDENTIFIED BY 'nav';

Query OK, 0 rows affected (0.01 sec)

mysql> grant all on metastore.\* TO 'hive'@'%' IDENTIFIED BY 'hive';

Query OK, 0 rows affected (0.00 sec)

## 七．安装cloudera-manager

下载cloudera-manager-installer.bin

[root@da04 data]# ./cloudera-manager-installer.bin

Da04上安装apache服务器

[root@da04 data]# yum install httpd

## 八．添加用户

1．[root@hadoop ~] chattr -i /etc/passwd;chattr -i /etc/shadow;chattr -i /etc/group;chattr -i /etc/gshadow

2．[root@hadoop ~]# useradd flume;useradd hadoop;useradd hbase;useradd hdfs;useradd hive;useradd httpfs;useradd hue;useradd impala;useradd llama;useradd mapred;useradd oozie;useradd solr;useradd spark;useradd sqoop;useradd sqoop2;useradd yarn;useradd zookeeper;

3．[root@nn01 ~]# usermod -a -G hdfs impala

[root@nn01 ~]# usermod -a -G hive impala

[root@nn01 ~]# usermod -a -G hadoop hdfs

[root@nn01 ~]# usermod -a -G hadoop mapred

[root@nn01 ~]# usermod -a -G sqoop sqoop2

## 九．开启NTPD服务

[root@nn01 ~]# service ntpd start

[root@nn01 ~]# chkconfig ntpd on

## 十．服务部署



说明：

A: Flume Agent

M: HBase Master

RS: HBase RegionServer

DN: HDFS DataNode

NN: HDFS NameNode

JN: HDFS JournalNode

FC: HDFS Failover Controller

S: Zookeeper Server

Cloudera Manage Service

AP: Alert Publisher

ES: Event Server

HM: Host Monitor

SM: Service Monitor