

Centos7 安装 CDH6 文档

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<https://blog.csdn.net/jato333>

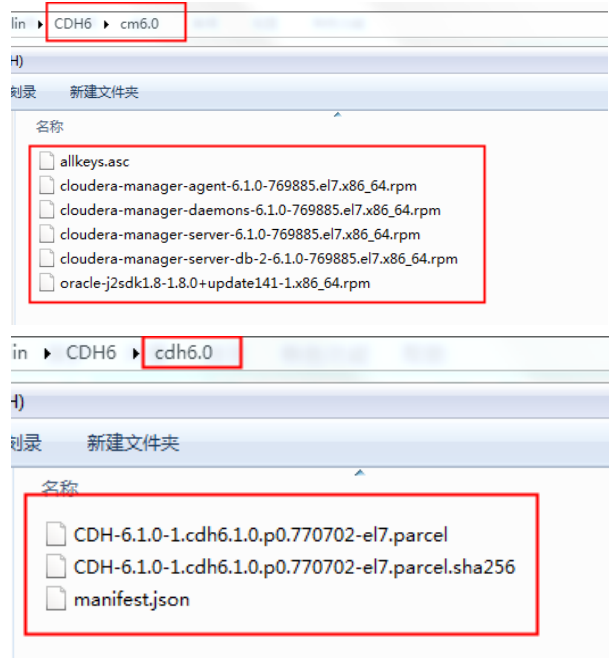
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1 软件需求

- 1) vagrant_1.9.6_x86_64.msi
- 2) VirtualBox-5.1.24-117012-Win.exe
- 3) vagrant-centos-7.2.box
- 4) mysql-connector-java-5.1.47.tar.gz
- 5) CDH6 相关软件包(cm6.0 和 cdh6.0)，如下



2 集群规划

Ip	Hostname	Software
192.168.56.11	hbase1	Mysql、httpd、cm server
192.168.56.12	Hbase2	Cm Agent、hdfs、hbase
192.168.56.13	Hbase3	Cm Agent、hdfs、hbase
192.168.56.14	Hbase4	Cm Agent、hdfs、hbase

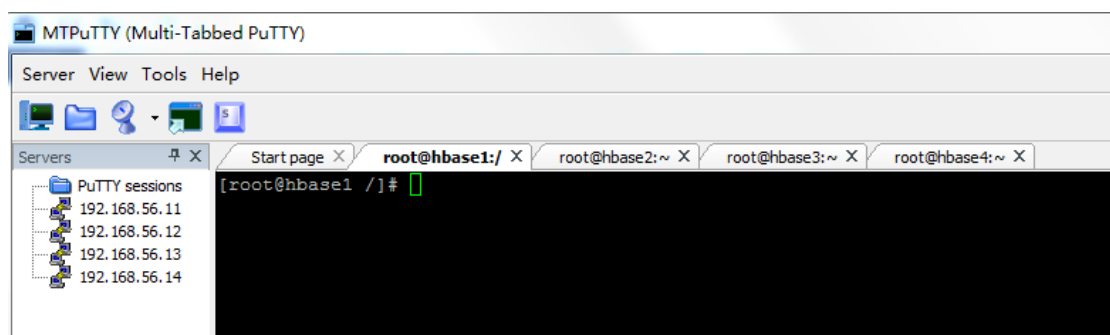
3 创建虚拟机

通过 vagrant+visual box 创建上述 4 个虚拟机

```
E:\vmos>vagrant up
==> vagrant: A new version of Vagrant is available: 2.2.3 (installed version: 2.
2.2)!
==> vagrant: To upgrade visit: https://www.vagrantup.com/downloads.html

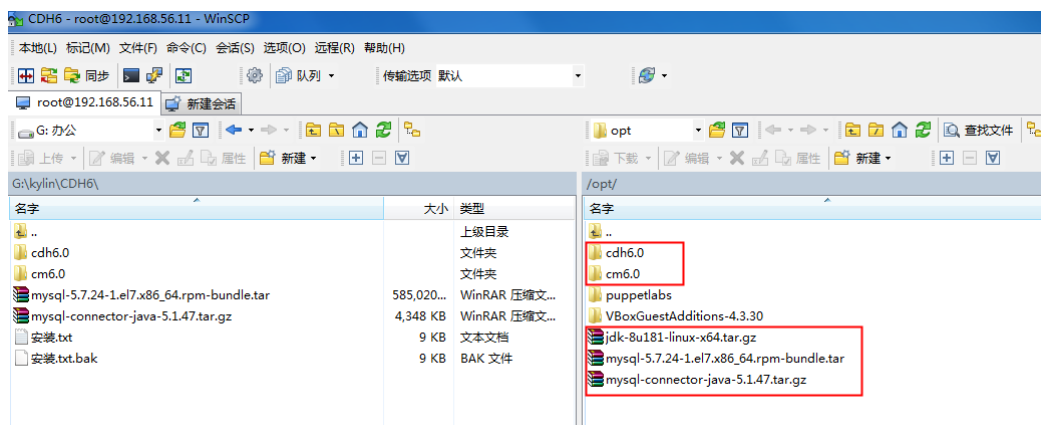
Bringing machine 'hbase1' up with 'virtualbox' provider...
Bringing machine 'hbase2' up with 'virtualbox' provider...
Bringing machine 'hbase3' up with 'virtualbox' provider...
Bringing machine 'hbase4' up with 'virtualbox' provider...
==> hbase1: Importing base box 'centos7' ...
==> hbase1: Matching MAC address for NAT networking...
==> hbase1: Setting the name of the VM: vmos_hbase1_1547863482847_63542
==> hbase1: Vagrant has detected a configuration issue which exposes a
==> hbase1: vulnerability with the installed version of VirtualBox. The
==> hbase1: current guest is configured to use an E1000 NIC type for a
==> hbase1: network adapter which is vulnerable in this version of VirtualBox.
==> hbase1: Ensure the guest is trusted to use this configuration or update
==> hbase1: the NIC type using one of the methods below:
==> hbase1:
==> hbase1: https://www.vagrantup.com/docs/virtualbox/configuration.html#defau
lt-nic-type
==> hbase1: https://www.vagrantup.com/docs/virtualbox/networking.html#virtualb
ox-nic-type
==> hbase1: Clearing any previously set network interfaces...
```

连接到 4 个终端



4 上传软件

将软件需求的软件全部上传至 hbase1 中



5 安装 CDH6

5.1 修改 hosts 文件

范围：hbase1/hbase2/hbase3/hbase4

命令：vi /etc/hosts

```
127.0.0.1 localhost
192.168.56.11 hbase1
192.168.56.12 hbase2
192.168.56.13 hbase3
192.168.56.14 hbase4
```

5.2 修改 hostname

范围：hbase1/hbase2/hbase3/hbase4

命令：vi /etc/hostname

hbase1

5.3 SSH 免密登录

5.3.1 创建私钥文件

范围：hbase1/hbase2/hbase3/hbase4

命令如下：

```
mkdir -p ~/.ssh
```

```
chmod 700 -R ~/.ssh
```

```
cd ~/.ssh
```

```
ssh-keygen -t rsa
```


范围：hbase4

命令：scp id_rsa.pub [root@hbase1:~/ssh/id_rsa.pub.hbase4](#)

```
Start page X / root@hbase1:~/.ssh X / root@hbase2:~/.ssh X / root@hbase3:~/.ssh X / root@hbase4:~/.ssh X
Using username "root".
Last login: Thu Nov 8 11:46:17 2018 from 192.168.56.1
[root@hbase4 ~]# rm -rf /tools/
[root@hbase4 ~]# vi /etc/profile
[root@hbase4 ~]# source /etc/profile
[root@hbase4 ~]# java -version
-bash: java: command not found
[root@hbase4 ~]# vi /etc/hosts
[root@hbase4 ~]# hostname
hbase4
[root@hbase4 ~]# mkdir -p ~/.ssh
[root@hbase4 ~]# chmod 700 ~/.ssh
[root@hbase4 ~]# cd ~/.ssh
[root@hbase4 .ssh]# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
7a164711b1a904c8c690d58c461403d364 root@hbase4
The key's randomart image is:
[ RSA 2048]
+-----+
| .o.o. |
| .o.o. |
| o .+.o |
| S .o.o |
| .E .+ |
| .      |
|        |
+-----+
[root@hbase4 .ssh]# scp id_rsa.pub root@hbase1:~/ssh/id_rsa.pub.hbase4
The authenticity of host 'hbase1 (192.168.56.1)' can't be established.
ECDSA key fingerprint is 7a164711b1a904c8c690d58c461403d364.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'hbase1,192.168.56.1' (ECDSA) to the list of known hosts.
root@hbase1's password:
id_rsa.pub
root@hbase4 .ssh]#
```

5.3.3 合并秘钥文件

范围：hbase1

命令：

cat id_rsa.pub >> authorized_keys

cat id_rsa.pub.hbase2 >> authorized_keys

cat id_rsa.pub.hbase3 >> authorized_keys

cat id_rsa.pub.hbase4 >> authorized_keys

chmod 600 ~/.ssh/authorized_keys

```
[root@hbase1 .ssh]# cat id_rsa.pub >> authorized_keys
[root@hbase1 .ssh]# cat id_rsa.pub.hbase2 >> authorized_keys
[root@hbase1 .ssh]# cat id_rsa.pub.hbase3 >> authorized_keys
[root@hbase1 .ssh]# cat id_rsa.pub.hbase4 >> authorized_keys
[root@hbase1 .ssh]# chmod 600 ~/.ssh/authorized_keys
[root@hbase1 .ssh]# ll
total 24
-rw----- 1 root root 1572 Jan 19 03:08 authorized_keys
-rw----- 1 root root 1679 Jan 19 02:59 id_rsa
-rw-r--r-- 1 root root 393 Jan 19 02:59 id_rsa.pub
-rw-r--r-- 1 root root 393 Jan 19 03:02 id_rsa.pub.hbase2
-rw-r--r-- 1 root root 393 Jan 19 03:03 id_rsa.pub.hbase3
-rw-r--r-- 1 root root 393 Jan 19 03:03 id_rsa.pub.hbase4
[root@hbase1 .ssh]#
```


5.3.4 分发公钥文件

范围： hbase1

命令：

scp authorized_keys root@hbase2:~/.ssh/authorized_keys

scp authorized_keys root@hbase3:~/.ssh/authorized_keys

scp authorized_keys [root@hbase4:~/.ssh/authorized_keys](#)

```
[root@hbase1 ~]# scp authorized_keys root@hbase2:~/.ssh/authorized_keys
The authenticity of host 'hbase2 (192.168.56.12)' can't be established.
ECDSA key fingerprint is 7a:f6:47:1b:a9:04:c8:c6:90:d5:8c:48:14:03:d3:64.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'hbase2,192.168.56.12' (ECDSA) to the list of known hosts.
root@hbase2's password:
authorized_keys
[root@hbase1 ~]# scp authorized_keys root@hbase3:~/.ssh/authorized_keys
The authenticity of host 'hbase3 (192.168.56.13)' can't be established.
ECDSA key fingerprint is 7a:f6:47:1b:a9:04:c8:c6:90:d5:8c:48:14:03:d3:64.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'hbase3,192.168.56.13' (ECDSA) to the list of known hosts.
root@hbase3's password:
authorized_keys
[root@hbase1 ~]# scp authorized_keys root@hbase4:~/.ssh/authorized_keys
The authenticity of host 'hbase4 (192.168.56.14)' can't be established.
ECDSA key fingerprint is 7a:f6:47:1b:a9:04:c8:c6:90:d5:8c:48:14:03:d3:64.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'hbase4,192.168.56.14' (ECDSA) to the list of known hosts.
root@hbase4's password:
authorized_keys
[root@hbase1 ~]#
```

5.3.5 验证 ssh 免密登录

范围： hbase1/hbase2/hbase3/hbase4

命令：

ssh hbase1

ssh hbase2

ssh hbase3

ssh hbase4

```
[root@hbase1 ~]# ssh hbase1
The authenticity of host 'hbase1 (192.168.56.11)' can't be established.
ECDSA key fingerprint is 7a:f6:47:1b:a9:04:c8:c6:90:d5:8c:48:14:03:d3:64.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'hbase1,192.168.56.11' (ECDSA) to the list of known hosts.
Last login: Sat Jan 19 02:12:08 2019 from 192.168.56.1
[root@hbase1 ~]# exit
logout
Connection to hbase1 closed.
[root@hbase1 ~]# ssh hbase2
Last login: Sat Jan 19 02:12:09 2019 from 192.168.56.1
[root@hbase2 ~]# exit
logout
Connection to hbase2 closed.
[root@hbase1 ~]# ssh hbase3
Last login: Sat Jan 19 02:12:11 2019 from 192.168.56.1
[root@hbase3 ~]# exit
logout
Connection to hbase3 closed.
[root@hbase1 ~]# ssh hbase4
Last login: Sat Jan 19 02:12:12 2019 from 192.168.56.1
[root@hbase4 ~]# exit
logout
Connection to hbase4 closed.
[root@hbase1 ~]#
```

5.4 集群时钟同步

5.4.1 安装 ntp 包

范围：hbase1/hbase2/hbase3/hbase4

命令：yum install -y ntp

5.4.2 主节点配置

5.4.1 修改配置文件

范围：hbase1

命令：vi /etc/ntp.conf

修改以下内容：

#server 0.rhel.pool.ntp.org iburst

#server 1.rhel.pool.ntp.org iburst

#server 2.rhel.pool.ntp.org iburst

#server 3.rhel.pool.ntp.org iburst

server 127.127.1.0 # local clock

fudge 127.127.1.0 stratum 10

```
Startpage X root@hbase1:~/ssh X root@hbase2:~/ssh X root@hbase3:~/ssh X root@hbase4:~/ssh X
# For more information about this file, see the man pages
# ntp.conf(5), ntp_acc(5), ntp_auth(5), ntp_clock(5), ntp_misc(5), ntp_mon(5).

driftfile /var/lib/ntp/drift

# Permit time synchronization with our time source, but do not
# permit the source to query or modify the service on this system.
restrict default nomodify notrap nopeer noquery

# Permit all access over the loopback interface. This could
# be tightened as well, but to do so would affect some of
# the administrative functions.
restrict 127.0.0.1
restrict ::1

# Hosts on local network are less restricted.
restrict 192.168.1.0 mask 255.255.255.0 nomodify notrap

# Use public servers from the pool.ntp.org project.
# Please consider joining the pool (http://www.pool.ntp.org/join.html).
#server 0.centos.pool.ntp.org iburst
#server 1.centos.pool.ntp.org iburst
#server 2.centos.pool.ntp.org iburst
#server 3.centos.pool.ntp.org iburst
server 127.127.1.0 # local clock
fudge 127.127.1.0 stratum 10

#broadcast 192.168.1.255 autokey # broadcast server
#broadcastclient # broadcast client
#multicast 224.0.0.1 autokey # multicast server
#multicastclient 224.0.0.1 # multicast client
#manyastserver 239.255.254.254 # manycast server
#manyastclient 239.255.254.254 autokey # manycast client

# Enable public key cryptography.
crypto
```

5.4.2.2 启动 ntp 服务

范围：hbase1

命令：

systemctl start ntpd

systemctl enable ntpd

systemctl status ntpd

```
[root@hbase1 .ssh]# vi /etc/ntp.conf
[root@hbase1 .ssh]# systemctl start ntpd
[root@hbase1 .ssh]# systemctl enable ntpd
Created symlink from /etc/systemd/system/multi-user.target.wants/ntpd.service to /usr/lib/systemd/system/ntpd.service.
[root@hbase1 .ssh]# systemctl status ntpd
● ntpd.service - Network Time Service
   Loaded: loaded (/usr/lib/systemd/system/ntpd.service; enabled; vendor preset: disabled)
   Active: active (running) since Sat 2019-01-19 03:24:42 GMT; 18s ago
     Main PID: 13355 (ntpd)
        CGroup: /system.slice/ntpd.service
                └─13355 /usr/sbin/ntpd -u ntp:ntp -g

Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 3 enp0s3 10.0.2.15 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 4 enp0s8 192.168.56.11 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 5 lo ::1 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 6 enp0s3 fe80::a00:27ff:fe6c:3e95 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 7 enp0s8 fe80::a00:27ff:feb5:cbdd UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listening on routing socket on fd #24 for interface updates
Jan 19 03:24:42 hbase1 ntpd[13355]: 0.0.0.0 c016 06 restart
Jan 19 03:24:42 hbase1 ntpd[13355]: 0.0.0.0 c012 02 freq_set kernel 0.000 PPM
Jan 19 03:24:42 hbase1 ntpd[13355]: 0.0.0.0 c011 01 freq_not_set
Jan 19 03:24:43 hbase1 ntpd[13355]: 0.0.0.0 c514 04 freq_mode
```

5.4.2.3 查看当前 ntp 状态

范围：hbase1

命令：ntpq -p

```
[root@hbase1 .ssh]# ntpq -p
      remote           refid      st t when poll reach  delay  offset  jitter
=====
*LOCAL(0)          .LOCL.         10 1   40   64    1   0.000   0.000   0.000
[root@hbase1 .ssh]#
```

出现*，说明已经开始同步了。

5.4.3 从节点配置

5.4.3.1 修改配置文件

范围：hbase2/hbase3/hbase4

命令：vi /etc/ntp.conf

修改以下内容：

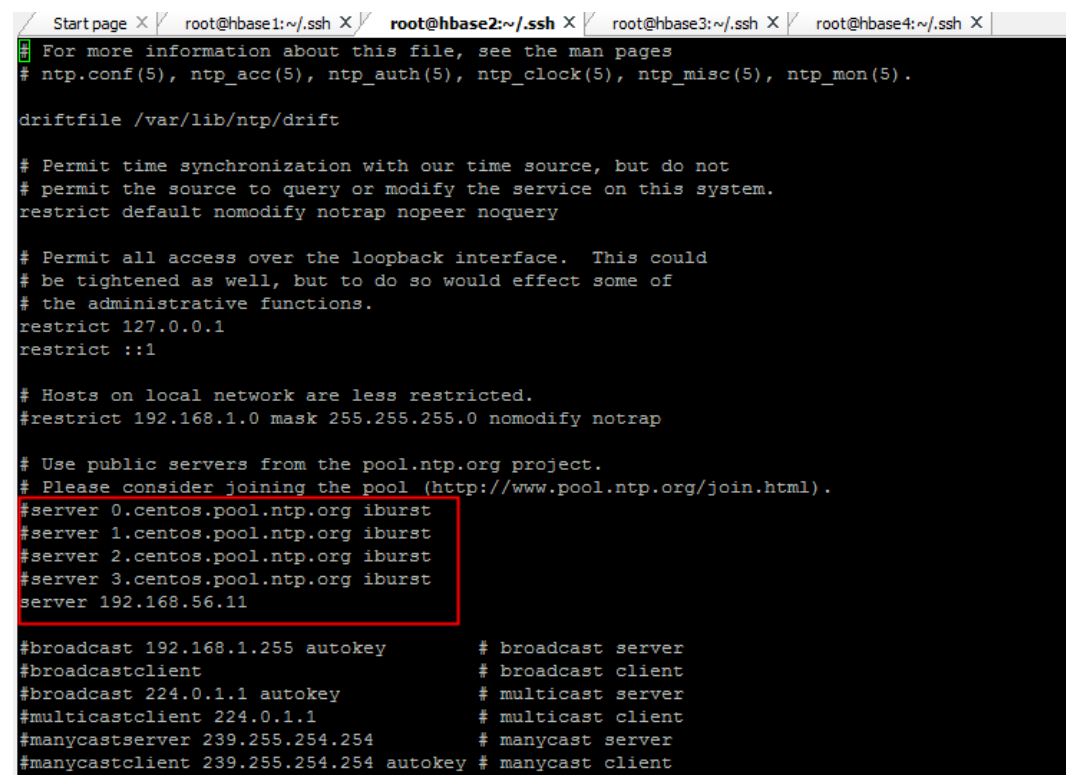
#server 0.rhel.pool.ntp.org iburst

#server 1.rhel.pool.ntp.org iburst

#server 2.rhel.pool.ntp.org iburst

#server 3.rhel.pool.ntp.org iburst

server 192.168.56.11



```
Startpage X root@hbase1:~/ssh X root@hbase2:~/ssh X root@hbase3:~/ssh X root@hbase4:~/ssh X
# For more information about this file, see the man pages
# ntp.conf(5), ntp_acc(5), ntp_auth(5), ntp_clock(5), ntp_misc(5), ntp_mon(5).

driftfile /var/lib/ntp/drift

# Permit time synchronization with our time source, but do not
# permit the source to query or modify the service on this system.
restrict default nomodify notrap nopeer noquery

# Permit all access over the loopback interface. This could
# be tightened as well, but to do so would effect some of
# the administrative functions.
restrict 127.0.0.1
restrict ::1

# Hosts on local network are less restricted.
#restrict 192.168.1.0 mask 255.255.255.0 nomodify notrap

# Use public servers from the pool.ntp.org project.
# Please consider joining the pool (http://www.pool.ntp.org/join.html).
#server 0.centos.pool.ntp.org iburst
#server 1.centos.pool.ntp.org iburst
#server 2.centos.pool.ntp.org iburst
#server 3.centos.pool.ntp.org iburst
server 192.168.56.11

#broadcast 192.168.1.255 autokey # broadcast server
#broadcastclient # broadcast client
#broadcast 224.0.1.1 autokey # multicast server
#multicastclient 224.0.1.1 # multicast client
#manycastserver 239.255.254.254 # manycast server
#manycastclient 239.255.254.254 autokey # manycast client
```

5.4.3.2 启动 ntp 服务

范围：hbase2/hbase3/hbase4

命令：

systemctl start ntpd

systemctl enable ntpd

systemctl status ntpd

```
[root@hbase1 .ssh]# vi /etc/ntp.conf
[root@hbase1 .ssh]# systemctl start ntpd
[root@hbase1 .ssh]# systemctl enable ntpd
Created symlink from /etc/systemd/system/multi-user.target.wants/ntpd.service to /usr/lib/systemd/system/ntpd.service.
[root@hbase1 .ssh]# systemctl status ntpd
● ntpd.service - Network Time Service
   Loaded: loaded (/usr/lib/systemd/system/ntpd.service; enabled; vendor preset: disabled)
   Active: active (running) since Sat 2019-01-19 03:24:42 GMT; 18s ago
     Main PID: 13355 (ntpd)
    CGroup: /system.slice/ntpd.service
            └─13355 /usr/sbin/ntpd -u ntp:ntp -g

Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 3 enp0s3 10.0.2.15 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 4 enp0s8 192.168.56.11 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 5 lo ::1 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 6 enp0s3 fe80::a00:27ff:fe6c:3e95 UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listen normally on 7 enp0s8 fe80::a00:27ff:feb5:cbdd UDP 123
Jan 19 03:24:42 hbase1 ntpd[13355]: Listening on routing socket on fd #24 for interface updates
Jan 19 03:24:42 hbase1 ntpd[13355]: 0.0.0.0 c016 06 restart
Jan 19 03:24:42 hbase1 ntpd[13355]: 0.0.0.0 c012 02 freq_set kernel 0.000 PPM
Jan 19 03:24:42 hbase1 ntpd[13355]: 0.0.0.0 c011 01 freq_not_set
Jan 19 03:24:43 hbase1 ntpd[13355]: 0.0.0.0 c514 04 freq_mode
```

5.4.3.3 查看当前 ntp 状态

范围：hbase2/hbase3/hbase4

命令：ntpq -p

```
[root@hbase2 .ssh]# ntpq -p
      remote           refid      st t when poll reach   delay   offset  jitter
=====
hbase1          LOCAL(0)         11 u   9   64    1    0.548  -141.48   0.031

[root@hbase3 .ssh]# ntpq -p
      remote           refid      st t when poll reach   delay   offset  jitter
=====
hbase1          LOCAL(0)         11 u   1   64    1    0.499  -170.95   0.000

[root@hbase4 .ssh]# ntpq -p
      remote           refid      st t when poll reach   delay   offset  jitter
=====
hbase1          .INIT.           16 u  -   64    0    0.000    0.000   0.000
```

出现*，说明已经开始同步了，此时还未出现，请耐心等待几分钟即可，一般 5 分钟左右。

5.5 安装 JDK

5.5.1 解压文件

范围： hbase1/hbase2/hbase3/hbase4

命令：tar -xvf jdk-8u181-linux-x64.tar.gz

5.5.2 修改配置文件

范围： hbase1/hbase2/hbase3/hbase4

命令：vi /etc/profile

增加以下内容：

```
export JAVA_HOME=/opt/jdk1.8.0_181
```

```
export PATH=$PATH:$JAVA_HOME/bin:$HADOOP_HOME/bin
```

```
export CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar
```

5.5.3 生效配置

范围： hbase1/hbase2/hbase3/hbase4

命令：source /etc/profile

5.5.4 验证 jdk

范围： hbase1/hbase2/hbase3/hbase4

命令：java -version

```
[root@hbase1 opt]# java -version
java version "1.8.0_181"
Java(TM) SE Runtime Environment (build 1.8.0_181-b13)
Java HotSpot(TM) 64-Bit Server VM (build 25.181-b13, mixed mode)
```

5.6 配置 jdbc 驱动

范围： hbase1/hbase2/hbase3/hbase4

命令：

```
tar -xvf mysql-connector-java-5.1.47.tar.gz
```

```
mkdir -p /usr/share/java/
```

```
mv /opt/mysql-connector-java-5.1.47/mysql-connector-java-5.1.47.jar /usr/share/java/
```

```
cd /usr/share/java
```

```
chmod 777 mysql-connector-java-5.1.47.jar
```

```
ln -s mysql-connector-java-5.1.47.jar mysql-connector-java.jar
```

```
[root@hbase1 opt]# mkdir -p /usr/share/java/
[root@hbase1 opt]# mv /opt/mysql-connector-java-5.1.47/mysql-connector-java-5.1.47.jar /usr/share/java/
[root@hbase1 opt]# cd /usr/share/java
[root@hbase1 java]# chmod 777 mysql-connector-java-5.1.47.jar
[root@hbase1 java]# ln -s mysql-connector-java-5.1.47.jar mysql-connector-java.jar
[root@hbase1 java]# ll
total 984
-rwxrwxrwx 1 root root 1007502 Aug  7 07:59 mysql-connector-java-5.1.47.jar
lrwxrwxrwx 1 root root      31 Jan 19 03:54 mysql-connector-java.jar -> mysql-connector-java-5.1.47.jar
```

5.7 安装 httpd 服务

5.7.1 安装 httpd 包

范围： hbase1

命令：

```
yum -y install httpd createrepo
```

```
mv cm6.0/ cdh6.0/ /var/www/html/
```

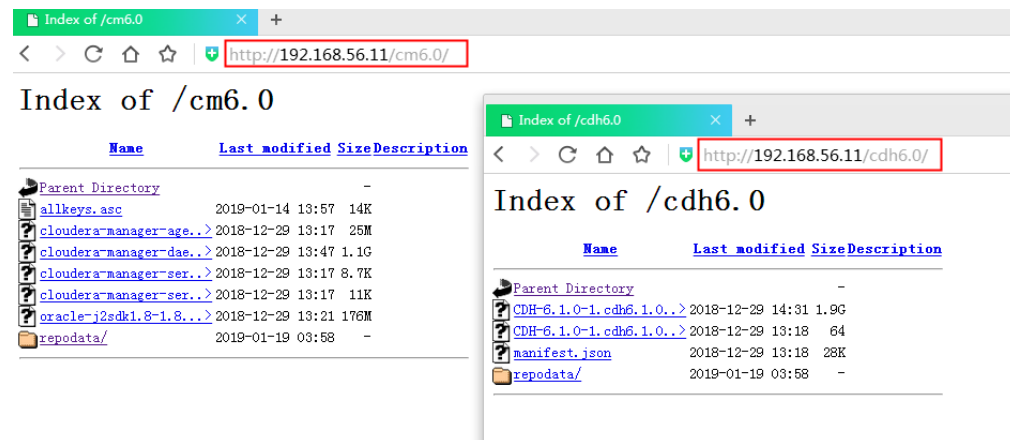
```
cd /var/www/html/cm6.0/
```

```
createrepo ./
```

```
cd /var/www/html/cdh6.0/
```

```
createrepo ./
```

5.7.2 测试 httpd 服务



5.7.3 配置 repo

范围：hbase1/hbase2/hbase3/hbase4

命令：vi /etc/yum.repos.d/cm.repo

增加以下内容：

[cmrepo]

name = cm_repo

baseurl = http://192.168.56.11/cm6.0

enable = true

gpgcheck = false

5.7.4 查看仓库

范围：hbase1/hbase2/hbase3/hbase4

命令：yum repolist

```
[root@hbase1 cdh6.0]# vi /etc/yum.repos.d/cm.repo
[root@hbase1 cdh6.0]# yum repolist
Loaded plugins: fastestmirror
cmrepo
cmrepo/primary_db
Loading mirror speeds from cached hostfile
 * base: mirrors.aliyun.com
 * epel: mirrors.tuna.tsinghua.edu.cn
 * extras: mirrors.aliyun.com
 * updates: mirrors.aliyun.com
repo id                               repo name
base/7/x86_64                         CentOS-7 - Base - mirrors.aliyun.com
cmrepo                                cm_repo
*epel/x86_64                           Extra Packages for Enterprise Linux 7 - x86_64
extras/7/x86_64                       CentOS-7 - Extras - mirrors.aliyun.com
puppetlabs-pcl/x86_64                 Puppet Labs PCL Repository el 7 - x86_64
updates/7/x86_64                      CentOS-7 - Updates - mirrors.aliyun.com
repolist: 24,037
[root@hbase1 cdh6.0]#
```


5.8 安装 oracle-JDK

范围： hbase1/hbase2/hbase3/hbase4

命令：yum -y install oracle-j2sdk1.8-1.8.0+update141-1.x86_64

```
[root@hbase1 ~]# yum -y install oracle-j2sdk1.8-1.8.0+update141-1.x86_64
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirrors.aliyun.com
 * epel: mirrors.tuna.tsinghua.edu.cn
 * extras: mirrors.aliyun.com
 * updates: mirrors.aliyun.com
Resolving Dependencies
--> Running transaction check
--> Package oracle-j2sdk1.8.x86_64 0:1.8.0+update141-1 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
Package                               Arch                                Version                               Repository                               Size
=====================================================================================================================================
Installing:
oracle-j2sdk1.8                       x86_64                             1.8.0+update141-1                   cmrepo                                  176 M
Transaction Summary
-----
Install 1 Package

Total download size: 176 M
Installed size: 359 M
Downloading packages:
oracle-j2sdk1.8-1.8.0+update141-1.x86_64.rpm                                | 176 MB  00:00:01
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : oracle-j2sdk1.8-1.8.0+update141-1.x86_64                        1/1
  Verifying   : oracle-j2sdk1.8-1.8.0+update141-1.x86_64                      1/1
Installed:
oracle-j2sdk1.8.x86_64 0:1.8.0+update141-1
Complete!
```

5.9 设置 swap

范围： hbase1/hbase2/hbase3/hbase4

命令：echo "vm.swappiness=10" >> /etc/sysctl.conf

5.10 设置透明大页面

范围： hbase1/hbase2/hbase3/hbase4

命令：

echo never > /sys/kernel/mm/transparent_hugepage/defrag

echo never > /sys/kernel/mm/transparent_hugepage/enabled

5.11 安装 mysql

5.11.1 卸载 mariadb

范围：hbase1

命令：

`rpm -qa|grep mariadb`

`rpm -e --nodeps mariadb-libs-5.5.44-2.el7.centos.x86_64`

```
[root@hbase1 cdh6.0]# rpm -qa|grep mariadb
mariadb-libs-5.5.44-2.el7.centos.x86_64
[root@hbase1 cdh6.0]# rpm -e --nodeps mariadb-libs-5.5.44-2.el7.centos.x86_64
```

5.11.2 下载 mysql 源安装包

范围：hbase1

命令：`wget http://dev.mysql.com/get/mysql57-community-release-el7-8.noarch.rpm`

```
[root@hbase1 ~]# wget http://dev.mysql.com/get/mysql57-community-release-el7-8.noarch.rpm
--2018-01-18 04:19:19-- http://dev.mysql.com/get/mysql57-community-release-el7-8.noarch.rpm
Connecting to dev.mysql.com [dev.mysql.com] (137.204.60.11):80... connected.
HTTP request sent, awaiting response... 200 OK [application/x-rpm]
Location: http://dev.mysql.com/get/mysql57-community-release-el7-8.noarch.rpm [following]
--2018-01-18 04:19:19-- http://dev.mysql.com/get/mysql57-community-release-el7-8.noarch.rpm
Connecting to dev.mysql.com [dev.mysql.com] (137.204.60.11):80... connected.
HTTP request sent, awaiting response... 200 OK [application/x-rpm]
Location: http://repo.mysql.com/mysql57-community-release-el7-8.noarch.rpm [following]
--2018-01-18 04:19:19-- http://repo.mysql.com/mysql57-community-release-el7-8.noarch.rpm
Connecting to repo.mysql.com [repo.mysql.com] (137.204.60.11):80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 816 (8.0K) [application/x-rpm]
Saving to: 'mysql57-community-release-el7-8.noarch.rpm'

mysql57-community-release-el7-8.noarch.rpm 8.0K 100% 0.0KB/s 0s

2018-01-18 04:19:20 (8.0 KB/s) - 'mysql57-community-release-el7-8.noarch.rpm' saved [816/816]
```

5.11.3 安装 mysql 源

范围：hbase1

命令：`yum -y localinstall mysql57-community-release-el7-8.noarch.rpm`

```
[root@hbase1 ~]# yum -y localinstall mysql57-community-release-el7-8.noarch.rpm
Loaded plugins: fastestmirror
Resolving MySQL57-community-release-el7-8.noarch.rpm: mysql57-community-release-el7-8.noarch
Warning: MySQL57-community-release-el7-8.noarch.rpm to be installed
Resolving Dependencies
--> Running transaction check
--> Package mysql57-community-release.noarch 0:el7-8 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
Package                               Arch                               Version                               Repository                               Size
=====================================================================================================================================
Installing:
mysql57-community-release             noarch                             el7-8                               /mysql57-community-release-el7-8.noarch 8.2 K
Transaction Summary
--
Install 1 Package

Total size: 8.2 K
Installed size: 8.2 K
Downloading packages
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Warning: RPMDB altered outside of yum.
+ Parsed 2 pre-existing rpm problems, 'rpm check' output follows:
+ glibc-2.15-1-4.el7.x86_64 has missing require of libmngclient.so.1()(64bit)
+ glibc-2.15-1-4.el7.x86_64 has missing require of libmngclient.so.1()(libmngclient_10)(64bit)
Installing : mysql57-community-release-el7-8.noarch
Verifying : mysql57-community-release-el7-8.noarch

Installed:
mysql57-community-release.noarch 0:el7-8
Complete!
```

5.11.4 安装 MySQL

范围：hbase1

命令：yum -y install mysql-community-server

```
[root@hbase1 opt]# yum -y install mysql-community-server
Loaded plugins: fastestmirror
mysql-connectors-community                                | 2.5 kB  00:00:00
mysql-tools-community                                    | 2.5 kB  00:00:00
mysql57-community                                         | 2.5 kB  00:00:00
(1/3): mysql-connectors-community/x86_64/primary_db      | 29 kB  00:00:00
(2/3): mysql-tools-community/x86_64/primary_db          | 48 kB  00:00:00
(3/3): mysql57-community/x86_64/primary_db              | 162 kB  00:00:00
Loading mirror speeds from cached hostfile
 * base: mirrors.aliyun.com
 * epel: mirrors.tuna.tsinghua.edu.cn
 * extras: mirrors.aliyun.com
 * updates: mirrors.aliyun.com
Resolving Dependencies
--> Running transaction check
--> Package mysql-community-server.x86_64 0:5.7.24-1.el7 will be installed
--> Processing Dependency: mysql-community-common(x86-64) = 5.7.24-1.el7 for package: mysql-community-server-5.7.24-1.el7.x86_64
--> Processing Dependency: mysql-community-client(x86-64) >= 5.7.9 for package: mysql-community-server-5.7.24-1.el7.x86_64
--> Processing Dependency: net-tools for package: mysql-community-server-5.7.24-1.el7.x86_64
--> Running transaction check
--> Package mysql-community-client.x86_64 0:5.7.24-1.el7 will be installed
--> Processing Dependency: mysql-community-libs(x86-64) = 5.7.9 for package: mysql-community-client-5.7.24-1.el7.x86_64
--> Package mysql-community-common.x86_64 0:5.7.24-1.el7 will be installed
--> Package net-tools.x86_64 0:2.0-0.24.20131004git.el7 will be installed
--> Running transaction check
--> Package mysql-community-libs.x86_64 0:5.7.24-1.el7 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
 Package Arch Version Repository Size
=====================================================================================================================================
Installing:
mysql-community-server x86_64 5.7.24-1.el7 mysql57-community 165 M
Installing for dependencies:
mysql-community-client x86_64 5.7.24-1.el7 mysql57-community 24 M
mysql-community-common x86_64 5.7.24-1.el7 mysql57-community 274 k
mysql-community-libs x86_64 5.7.24-1.el7 mysql57-community 2.2 M
net-tools x86_64 2.0-0.24.20131004git.el7 base 306 k
Transaction Summary
-----
Install 1 Package (+4 Dependent packages)

Total download size: 192 M
Installed size: 864 M
Downloading packages:
warning: /var/cache/yum/x86_64/7/mysql57-community/packages/mysql-community-common-5.7.24-1.el7.x86_64.rpm: Header V3 DSA/SHA1 Signature, key ID 5072e1f5: NOKEY
Public key for mysql-community-common-5.7.24-1.el7.x86_64.rpm is not installed
(1/5): mysql-community-common-5.7.24-1.el7.x86_64.rpm | 274 kB 00:00:00
(2/5): mysql-community-libs-5.7.24-1.el7.x86_64.rpm | 2.2 MB 00:00:01
(3/5): net-tools-2.0-0.24.20131004git.el7.x86_64.rpm | 306 kB 00:00:00
(4/5): mysql-community-client-5.7.24-1.el7.x86_64.rpm | 24 MB 00:00:13
(5/5): mysql-community-server-5.7.24-1.el7.x86_64.rpm 94% [=====] 1 3.7 MB/s | 181 MB 00:00:02 ETA
```

5.11.5 启动 MySQL 服务

范围：hbase1

命令：systemctl start mysqld

5.11.6 查看初始化密码

范围：hbase1

命令：grep 'temporary password' /var/log/mysqld.log

```
complete.
[root@hbase1 opt]# systemctl start mysqld
[root@hbase1 opt]# grep 'temporary password' /var/log/mysqld.log
2019-01-19T04:45:39.848509Z 1 [Note] A temporary password is generated for root@localhost: 0ix$dTq$mYrL
```

5.11.7 设置 mysql 数据库

范围：hbase1

命令：

```
mysql -u root -p
set global validate_password_policy=0;
set global validate_password_mixed_case_count=0;
set global validate_password_number_count=3;
set global validate_password_special_char_count=0;
set global validate_password_length=3;
set password for 'root'@'localhost'=password('hive');
GRANT ALL PRIVILEGES ON *.* TO root@'%' IDENTIFIED BY 'hive' WITH GRANT OPTION;
SHOW VARIABLES LIKE 'validate_password%';
create database cm DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
create database hive DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
create database amon DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
create database rman DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
FLUSH PRIVILEGES;
exit;
```

```
[root@hbase1 opt]# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2
Server version: 5.7.24

Copyright (c) 2000, 2018, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> set global validate_password_policy=0;
Query OK, 0 rows affected (0.00 sec)

mysql> set global validate_password_mixed_case_count=0;
Query OK, 0 rows affected (0.00 sec)

mysql> set global validate_password_number_count=3;
Query OK, 0 rows affected (0.00 sec)

mysql> set global validate_password_special_char_count=0;
Query OK, 0 rows affected (0.00 sec)

mysql> set global validate_password_length=3;
Query OK, 0 rows affected (0.00 sec)

mysql> set password for 'root'@'localhost'=password('hive');
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> GRANT ALL PRIVILEGES ON *.* TO root@'%' IDENTIFIED BY 'hive' WITH GRANT OPTION;
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> SHOW VARIABLES LIKE 'validate_password%';
+-----+-----+
| Variable name | Value |
+-----+-----+
| validate_password_check_user_name | OFF |
| validate_password_dictionary_file | |
| validate_password_length | 3 |
| validate_password_mixed_case_count | 0 |
| validate_password_number_count | 3 |
| validate_password_policy | LOW |
| validate_password_special_char_count | 0 |
+-----+-----+
7 rows in set (0.01 sec)

mysql> create database cm DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected (0.00 sec)

mysql> create database hive DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected (0.00 sec)

mysql> create database amon DEFAULT CHARSET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected (0.01 sec)
```

5.12 安装 Cloudera Manager

范围：hbase1

命令：yum -y install cloudera-manager-server

```
[root@hbase1 opt]# yum -y install cloudera-manager-server
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
* base: mirrors.aliyun.com
* epel: mirrors.tuna.tsinghua.edu.cn
* extras: mirrors.aliyun.com
* updates: mirrors.aliyun.com
Resolving Dependencies
--> Running transaction check
--> Package cloudera-manager-server.x86_64 0:6.1.0-769885.el7 will be installed
--> Processing Dependency: cloudera-manager-daemons = 6.1.0 for package: cloudera-manager-server-6.1.0-769885.el7.x86_64
--> Running transaction check
--> Package cloudera-manager-daemons.x86_64 0:6.1.0-769885.el7 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
Package                               Arch                               Version                               Repository                               Size
=====================================================================================================================================
Installing:
 cloudera-manager-server              x86_64                             6.1.0-769885.el7                     cmrepo                                   8.7 k
Installing for dependencies:
 cloudera-manager-daemons            x86_64                             6.1.0-769885.el7                     cmrepo                                   1.1 G
Transaction Summary
-----
Install 1 Package (+1 dependent package)

Total download size: 1.1 G
Installed size: 1.3 G
Downloading packages:
(1/2) cloudera-manager-server-6.1.0-769885.el7.x86_64.rpm                                | 8.7 KB 00:00:00
(2/2) cloudera-manager-daemons-6.1.0-769885.el7.x86_64.rpm                            368 [-----] 51 MB/s | 394 MB 00:00:13 ETA

```

5.13 初始化数据库

范围：hbase1

命令：

/opt/cloudera/cm/schema/scm_prepare_database.sh mysql cm root hive

```
[root@hbase1 opt]# /opt/cloudera/cm/schema/scm_prepare_database.sh mysql cm root hive
JAVA_HOME=/opt/jdk1.8.0_181
Verifying that we can write to /etc/cloudera-scm-server
Creating SCM configuration file in /etc/cloudera-scm-server
Executing: /opt/jdk1.8.0_181/bin/java -cp /usr/share/java/mysql-connector-java.jar:/usr/share/java/oracle-connector-java.jar:/usr/share/java/postgresql-connector-java.jar:/opt/cloudera/cm/schema/.../lib/* com.cloudera.enterprise.dbutil.DbCommandExecutor /etc/cloudera-scm-server/db.properties cm.cloudera.conf.db
Sat Jan 19 04:54:41 GMT 2019 WARN: Establishing SSL connection without server's identity verification is not recommended. According to MySQL 5.5.45+, 5.6.26+ and 5.7.6+ requirements SSL connection must be established by default if explicit option isn't set. For compliance with existing applications not using SSL the verifyServerCertificate property is set to 'false'. You need either to explicitly disable SSL by setting useSSL=false, or set useSSL=true and provide truststore for server certificate verification.
INFO: Successfully connected to database.
All done, your SCM database is configured correctly!
[root@hbase1 opt]#
```

5.14 启动 Cloudera Manager Server

范围：hbase1

命令：

systemctl start cloudera-scm-server

systemctl status cloudera-scm-server

```
[root@hbase1 opt]# systemctl start cloudera-scm-server
[root@hbase1 opt]# systemctl status cloudera-scm-server
● cloudera-scm-server.service - Cloudera CM Server Service
   Loaded: loaded (/usr/lib/systemd/system/cloudera-scm-server.service; enabled; vendor preset: disabled)
   Active: active (running) since Sat 2019-01-19 04:58:52 GMT; 6s ago
     Main PID: 13835 (java)
    CGroup: /system.slice/cloudera-scm-server.service
            └─13835 /usr/java/jdk1.8.0_141-cloudera/bin/java -cp ./usr/share/java/mysql-connector-java.jar:/usr/share/java/oracle-connector-java.jar:/usr/share/java/postgresql-...

Jan 19 04:58:52 hbase1 systemd[1]: Started Cloudera CM Server Service.
Jan 19 04:58:52 hbase1 systemd[1]: Starting Cloudera CM Server Service:..
Jan 19 04:58:53 hbase1 cm-server[13835]: JAVA_HOME=/usr/java/jdk1.8.0_141-cloudera
Jan 19 04:58:53 hbase1 cm-server[13835]: Java HotSpot(TM) 64-Bit Server VM warning: ignoring option MaxPermSize=256m; support was removed in 8.0
Jan 19 04:58:56 hbase1 cm-server[13835]: ERROR StatusLogger No log4j2 configuration file found. Using default configuration: logging only errors to the console. Set ...on logging.
Hint: Some lines were ellipsized, use -l to show in full.
[root@hbase1 opt]#
```

5.15 检查端口是否监听

范围：hbase1

命令：netstat -lnpt | grep 7180

启动的过程需要一段时间，大约 2 分钟左右，请耐心等待。。。

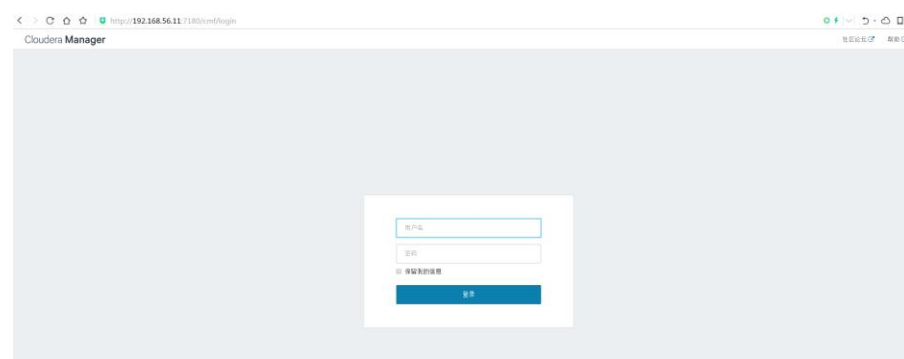
```
[root@hbase1 opt]# netstat -lnpt | grep 7180
tcp        0      0 0.0.0.0:7180        0.0.0.0:*          LISTEN     13835/java
```

5.16 访问 Cloudera Manager Server

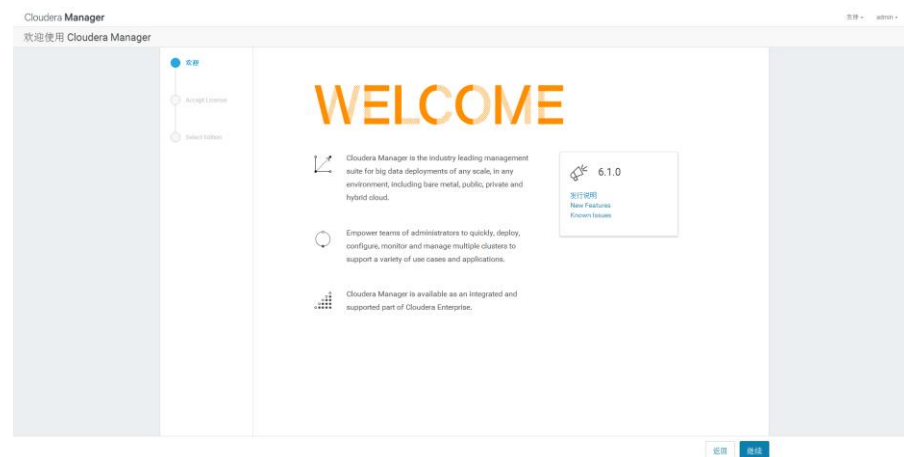
5.16.1 登录到 CM

访问 <http://192.168.56.11:7180/cmfd/login> ,

默认用户名/密码为：admin/admin



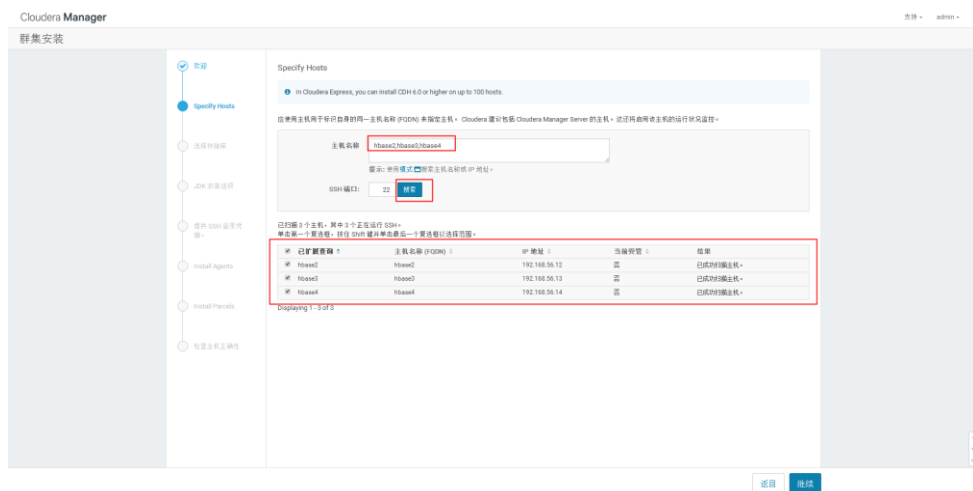
接下来，一路 next



这里我们选择 “Cloudera Express”

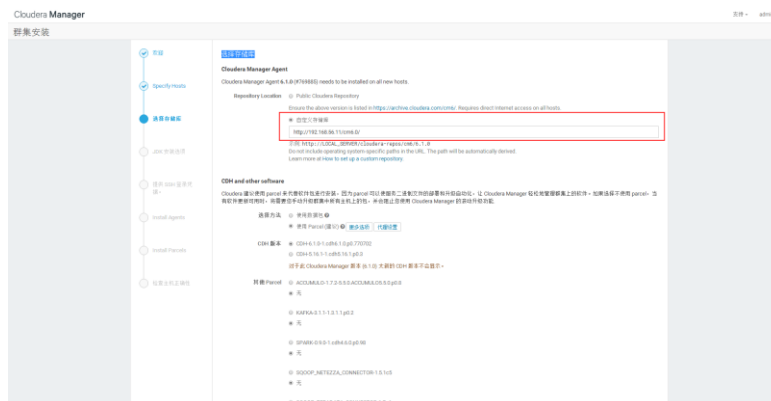


5.16.2 添加主机



5.16.3 设置存储库

选择“自定义存储库”，输入：<http://192.168.56.11/cm6.0/>



使用 parcel 选择，点击“更多选项”，点击“-”删除其它所有地址，

欢迎

Specify Hosts

选择存储库

JDK 安装选项

提供 SSH 登录凭据

Install Agents

Install Parcels

配置主机正确性

选择存储库

Cloudera Manager Agent

Cloudera Manager Agent 6.1.0 (#769885) needs to be installed on all new hosts.

Repository Location

Public Cloudera Repository

Ensure the above version is listed in <https://archive.cloudera.com/cm6/>. Requires direct Internet access on all hosts.

* 自定义存储库

示例: http://LOCAL_SERVER/cloudera-repos/cm6/6.1.0
Do not include operating system-specific paths in the URL. The path will be automatically derived.
[Learn more at How to set up a custom repository.](#)

CDH and other software

Cloudera 建议使用 parcel 来代替软件包进行安装，因为 parcel 可以使服务器二进制文件的部署和升级自动化，让 Cloudera Manager 轻松地管理群集上的软件。如果选择不使用 parcel，当有软件更新可用时，将需要手动升级群集中所有主机上的包，并会阻止您使用 Cloudera Manager 的自动升级功能。

选择方法

使用 Parcel (建议)

更多选项

代理设置

CDH 版本

CDH-6.1.0-1.cdh6.1.0.p0.770702

CDH-5.16.1-1.cdh5.16.1.p0.3

对于此 Cloudera Manager 版本 (6.1.0) 支持的 CDH 版本不会显示。

构建 Parcel

ACCUMULO-1.7.2-5.0.ACCUMULO5.5.0.p0.8

无

KAFKA-3.1.1-1.3.1.1.p0.2

无

SPARK-0.9.0-1.cdh4.6.0.p0.98

无

SQOOP_NETEZZA_CONNECTOR-1.5.1.c5

无

Parcel 存储库设置

Parcel 目录

需要更改吗?

本地 Parcel 存储库路径

远程 Parcel 存储库 URL

https://archive.cloudera.com/cdh/latest_supported/parcels/

https://archive.cloudera.com/cdh/parcels/5.16/

https://parcels.repo.intel.com/cm6/latest

https://archive.cloudera.com/accumulo-5/parcels/latest/

https://archive.cloudera.com/accumulo-6/parcels/latest/

https://archive.cloudera.com/kafka/parcels/latest/

http://archive.cloudera.com/tud/parcels/latest/

https://archive.cloudera.com/spark/parcels/latest/

https://archive.cloudera.com/sqoop-heredata-connector/latest/

https://archive.cloudera.com/sqoop-connector/parcels/latest/

取消

保存更改

输入 `http://192.168.56.11/cdh6.0/`，点击“保存更改”

Parcel 存储库设置

Parcel 目录

需要更改吗?

本地 Parcel 存储库路径

远程 Parcel 存储库 URL

http://192.168.56.11/cdh6.0/

取消

保存更改

Cloudera Manager

集群安装

欢迎

Specify Hosts

选择存储库

JDK 安装选项

提供 SSH 登录凭据

Install Agents

Install Parcels

配置主机正确性

选择存储库

Cloudera Manager Agent

Cloudera Manager Agent 6.1.0 (#769885) needs to be installed on all new hosts.

Repository Location

Public Cloudera Repository

Ensure the above version is listed in <https://archive.cloudera.com/cm6/>. Requires direct Internet access on all hosts.

* 自定义存储库

示例: http://LOCAL_SERVER/cloudera-repos/cm6/6.1.0
Do not include operating system-specific paths in the URL. The path will be automatically derived.
[Learn more at How to set up a custom repository.](#)

CDH and other software

Cloudera 建议使用 parcel 来代替软件包进行安装，因为 parcel 可以使服务器二进制文件的部署和升级自动化，让 Cloudera Manager 轻松地管理群集上的软件。如果选择不使用 parcel，当有软件更新可用时，将需要手动升级群集中所有主机上的包，并会阻止您使用 Cloudera Manager 的自动升级功能。

选择方法

使用 Parcel (建议)

更多选项

代理设置

CDH 版本

CDH-6.1.0-1.cdh6.1.0.p0.770702

对于此 Cloudera Manager 版本 (6.1.0) 支持的 CDH 版本不会显示。

取消

继续

5.16.4 安装jdk

Cloudera Manager

支持 - admin

群集安装

欢迎

Specify Hosts

选择存储库

JDK 安装选项

提供 SSH 登录凭据

Install Agents

Install Parcels

检查主机正确性

JDK 安装选项

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☒ 安装 Oracle Java SE 开发工具包 (JDK)

选中此复选框以接受"Oracle 二进制代码许可证"并安装 JDK。取消选中以使用当前安装的 JDK。

WARNING: This Cloudera offering includes Oracle's Unlimited Strength Java(TM) Cryptography Extension (JCE) Policy Files for the Java(TM) Platform, Standard Edition (Java SE) Runtime Environment. Due to import restrictions of some countries, the version of the JCE Policy Files that are bundled in the Java Runtime Environment, or JRE(TM), allow "strong" but limited cryptography to be used. The Unlimited Strength JCE Policy Files included in this Cloudera offering, however, provides "unlimited strength" policy files which contain no restrictions on cryptographic strengths. Please note that some countries may legally prohibit the import of unlimited encryption strength policy files. You are responsible for determining whether you are subject to legal restrictions on cryptographic strength, and if so, you should not download this file. If legally permitted, you may configure the transport-layer security to reduce the cryptographic strength available with the default policy files. Additional information may be found at www.oracle.com. You are advised to consult your export/import control counsel or attorney to determine the exact requirements.

☐ 安装 Java 无限制强度加密政策文件

如果当地法律禁止安装无限制强度加密，并且您正在运行安全的群集，则选中此复选框。

返回

继续

Cloudera Manager

支持 - admin

群集安装

欢迎

Specify Hosts

选择存储库

JDK 安装选项

提供 SSH 登录凭据

Install Agents

Install Parcels

检查主机正确性

提供 SSH 登录凭据。

安装 Cloudera 时需要主机的 root 访问权限。此安装程序将通过 SSH 连接到选定的主机，然后尝试以 root 用户身份登录，或者以另一个具有 root 用户权限的用户身份登录。

登录到所有主机，作为

root

 为：

其他用户

对以上选定的用户，您将通过密码或公钥身份验证连接。

身份验证方法：

所有主机使用相同密码

所有主机使用相同私钥

输入密码:

确认密码:

SSH 端口:

同时安装的数量:

输入 root 账号的密码

(同时运行多个安装时将耗大量的网络带宽和其他操作系统资源)

返回

继续

Cloudera Manager

支持 - admin

群集安装

欢迎

Specify Hosts

选择存储库

JDK 安装选项

提供 SSH 登录凭据

Install Agents

Install Parcels

检查主机正确性

Install Agents

正在安装。

已成功完成 3 个主机中的 0 个。

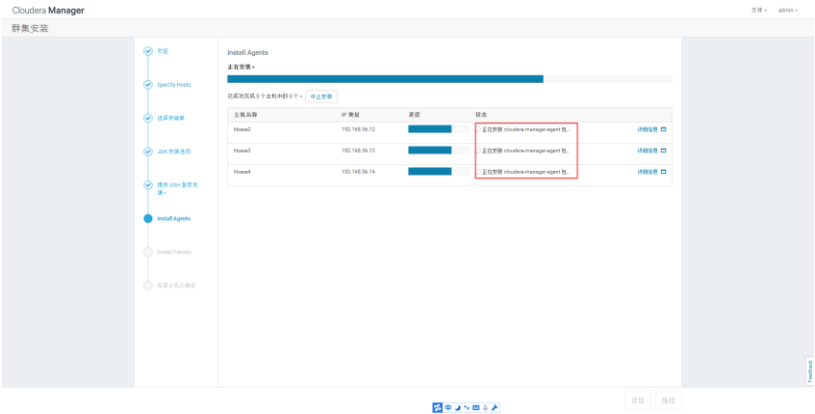
中止安装

主机名称	IP 地址	进度	状态	
hbase2	192.168.56.12		<div><input type="radio"/> 正在安装 oracle-jdk1.8 包。</div>	详细情况
hbase3	192.168.56.13		<div><input type="radio"/> 正在安装 oracle-jdk1.8 包。</div>	详细情况
hbase4	192.168.56.14		<div><input type="radio"/> 正在安装 oracle-jdk1.8 包。</div>	详细情况

返回

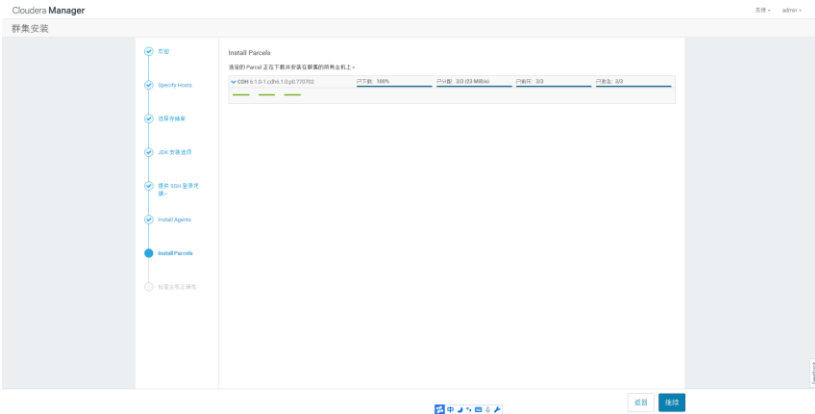
继续

5.16.5 安装 Install Agents



此步的时间会长一些

5.16.6 分配\解压\激活



5.16.7 检查主机正确性



这里报了两个警告，需要处理一下。

1) 处理 swappiness

❗ Cloudera 建议将 `/proc/sys/vm/swappiness` 设置为最大值 10。当前设置为 30。使用 `sysctl` 命令在运行时更改该设置并编辑 `/etc/sysctl.conf`，以在重启后保存该设置。您可以继续进行安装，但 Cloudera Manager 可能会报告您的主机由于交换而运行状况不良。以下主机将受到影响：
➤ 查看详细信息

范围： hbase2/hbase3/hbase4

命令： `echo 0 > /proc/sys/vm/swappiness`

运行上述命令后，点击：“重新运行”，已解决。



检查主机正确性 [重新运行](#)

验证

- 检查器在所有 3 个主机上运行。
- 个别主机正确地解析了自己的主机名称。
- 查询存在冲突的初始脚本时未发现错误。
- 检查 `/etc/hosts` 时未发现错误。
- 所有主机均将 `localhost` 解析为 `127.0.0.1`。
- 检查过的所有主机均正确且及时地解析了彼此的主机名称。
- 主机时钟几乎同步（10 分钟内）。
- 整个群集中的主机时区一致。
- 无用户或组缺失。
- 软件包和 `parcel` 之间未检测到冲突。
- 没有存在已知错误的内核版本在运行。
- 所有主机上的 `/proc/sys/vm/swappiness` 都未发现问题。
- 没有任何性能与“透明大页面”设置有关。
- 已满足 CDH 5 Hue Python 版本依赖关系。
- ❗ Starting with CDH 6, PostgreSQL-backed Hue requires the Psycopg2 version to be at least 2.5.4, see the [documentation](#) for more information. This warning can be ignored if hosts will not run CDH 6, or will not run Hue with PostgreSQL, or is not RHEL 6 compatible. The following hosts have an incompatible Psycopg2 version of 2.5.1:
➤ 查看详细信息
- 0 hosts are running CDH 5 and 3 hosts are running CDH 6.
- 每个群集中检查过的所有主机均在运行相同版本的组件。
- 所有托管的主机都拥有不一致的 Java 版本。
- 所检查的所有 Cloudera Management Daemon 版本与服务器一致。
- 所检查的所有 Cloudera 管理代理版本与服务器一致。

2) 升级 Psycopg2

❗ Starting with CDH 6, PostgreSQL-backed Hue requires the Psycopg2 version to be at least 2.5.4, see the [documentation](#) for more information. This warning can be ignored if hosts will not run CDH 6, or will not run Hue with PostgreSQL, or is not RHEL 6 compatible. The following hosts have an incompatible Psycopg2 version of 2.5.1:
➤ 查看详细信息

范围： hbase2/hbase3/hbase4

命令：

```
yum -y install python-devel mysql-devel zlib-devel openssl-devel gcc-c++ postgresql-devel*
```

```
cd /opt
```

```
wget https://pypi.python.org/packages/source/p/psycopg2/psycopg2-2.5.4.tar.gz
```

```
tar zxvf psycopg2-2.5.4.tar.gz
```

```
cd psycopg2-2.5.4
```

```
python setup.py build
```

```
python setup.py install
```

```
byte-compiling /usr/lib64/python2.7/site-packages/psycopg2/tests/test_cursor.py to test_cursor.pyc
byte-compiling /usr/lib64/python2.7/site-packages/psycopg2/tests/test_connection.py to test_connection.pyc
byte-compiling /usr/lib64/python2.7/site-packages/psycopg2/tests/test_notify.py to test_notify.pyc
byte-compiling /usr/lib64/python2.7/site-packages/psycopg2/tests/test_bugX000.py to test_bugX000.pyc
running install_egg_info
Writing /usr/lib64/python2.7/site-packages/psycopg2-2.5.4-py2.7.egg-info
[root@hbase2 psycopg2-2.5.4]#
```

运行上述命令后，点击：“重新运行”，已解决。

检查主机正确性

重新运行

验证

✓

检查器在所有 3 个主机上运行。

✓

个别主机正确地解析了自己的主机名称。

✓

查询存在冲突的初始脚本时未发现错误。

✓

检查 /etc/hosts 时未发现错误。

✓

所有主机均将 localhost 解析为 127.0.0.1。

✓

检查过的所有主机均正确且及时地解析了彼此的主机名称。

✓

主机时移几乎同步（10 分钟内）。

✓

整个群集中的主机时区一致。

✓

无用户或组缺失。

✓

软件包和 parcel 之间未检测到冲突。

✓

没有存在已知错误的内核版本在运行。

✓

所有主机上的 /proc/sys/vm/swappiness 都未发现有问题。

✓

没有任何性能与“透明大页面”设置有关。

✓

已满足 CDH 5 Hue Python 版本依赖关系。

✓

Hue Psycopg2 version for PostgreSQL is satisfied for both CDH 5 and CDH 6.

✓

0 hosts are running CDH 5 and 3 hosts are running CDH 6.

✓

每个群集中检查过的所有主机均在运行相同版本的组件。

✓

所有托管的主机都拥有一款 Java 版本。

✓

所检查的所有 Cloudera Management Daemon 版本与服务器一致。

✓

所检查的所有 Cloudera 管理代理版本与服务器一致。

5.16.8 选择服务

Cloudera Manager

群集设置

Select Services

选择要安装的服务组件。

Essentials

Management and support for Cloudera's distribution including Hadoop.

服务: HDFS - YARN (含 MapReduce 2) - ZooKeeper - Ozone - Hive 和 Hue

Data Engineering

Provision, identify, and control production models.

服务: HDFS - YARN (含 MapReduce 2) - ZooKeeper - Ozone - Hive - Hue 和 Spark

Data Warehouse

The modern data warehouse for today, tomorrow, and beyond.

服务: HDFS - YARN (含 MapReduce 2) - ZooKeeper - Ozone - Hive - Hue 和 Impala

Operational Database

Real-time insights for modern data-driven business.

服务: HDFS - YARN (含 MapReduce 2) - ZooKeeper - Ozone - Hive - Hue 和 HBase

所有服务

Everything you need to become information-driven, with complete use of the platform.

服务: HDFS - YARN (含 MapReduce 2) - ZooKeeper - Ozone - Hive - Hue - HBase - Impala - Solr - Spark 和 Key-Value Store Indexer

自定义服务

选择自己的服务。将自动包含的服务所需的组件。只有在配置了初始群集之后才能添加 Flume。

本向导将安装 Cloudera Management Service。有一系列组件可用监控、报告、事件和警报。这些组件需要存储库来管理。这将在下一页面上配置。

返回

继续

我选择了“自定义服务“

群集设置

定制

自定义服务

选择自己的服务。将自动包含的服务所需的组件。只有在配置了初始群集之后才能添加 Flume。

服务类型

说明

✓

Hive

Apache Hive 是跨大型数据集的数据库。它的数据与访问视图（需要 HDFS 和 ZooKeeper）。

✓

HDFS

Apache Hadoop 分布式文件系统 (HDFS) 是 Hadoop 应用程序使用的主要存储系统。HDFS 将多个数据块副本并跨它们分布在多个数据节点的计算机上。它同时管理数据和块副本的分配。

✓

Hue

Hue 是一种 Web 浏览器界面，提供名为 Hue+UI 的 UI 界面。

✓

Hue

Hue 是与 Hive 一起使用的 Apache Hadoop 的 Cloudera Distribution 版本使用的图形用户界面 (HDFS、MapReduce 和 Hive)。

✓

Impala

Impala 为存储在 HDFS 和 HBase 中的数据提供了一站式 SQL 查询接口。Impala 需要 Hue 服务。它与 Hue 一起使用 Hive Metastore。

✓

Impala

EMC Isilon 是一个分布式的操作系统。

✓

Kafka

Apache Kafka 是用于构建可扩展消息系统或分布式的消息队列。

✓

Key-Value Store Indexer

键值 (Store Indexer) 是 Hue 中用于索引的数据库。它使用 Hue 为构建索引。

✓

Kudu

Kudu 是一个列式存储用于 Hadoop 生态系统。

✓

Ozone

Ozone 是数据集中存储和管理多租户的工作流引擎。

✓

Solr

Solr 是一个分布式服务。用于管理和索引文档和元数据。

✓

Spark

Apache Spark 是一个开源数据分析和处理引擎。This service runs Spark as an application on YARN.

✓

YARN (HDFS Included)

Apache Hadoop MapReduce 2.0 (HDFS) 是 Hadoop 生态系统的核心组件 (需要 HDFS)。

✓

ZooKeeper

Apache ZooKeeper 是用于维护分布式系统的协调服务。

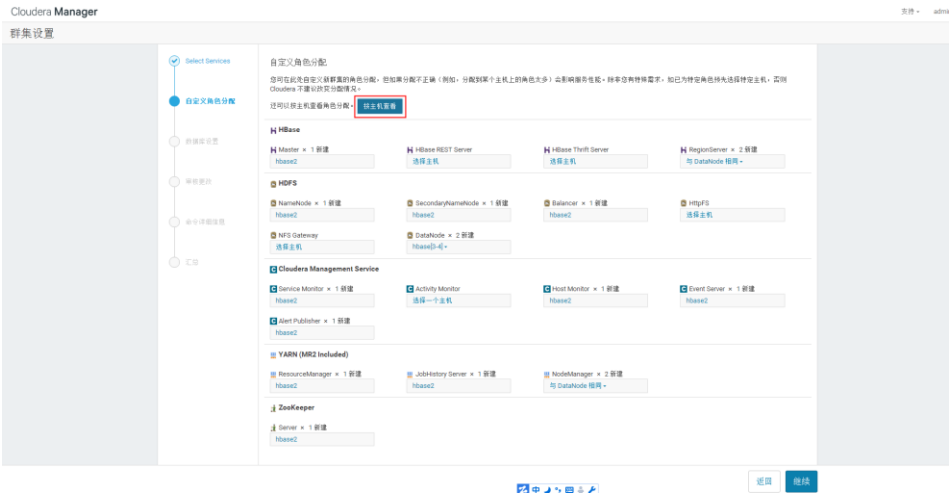
本向导将安装 Cloudera Management Service。有一系列组件可用监控、报告、事件和警报。这些组件需要存储库来管理。这将在下一页面上配置。

返回

继续

也可以在以后需要的时候，再添加服务。

5.16.9 自定义角色分配

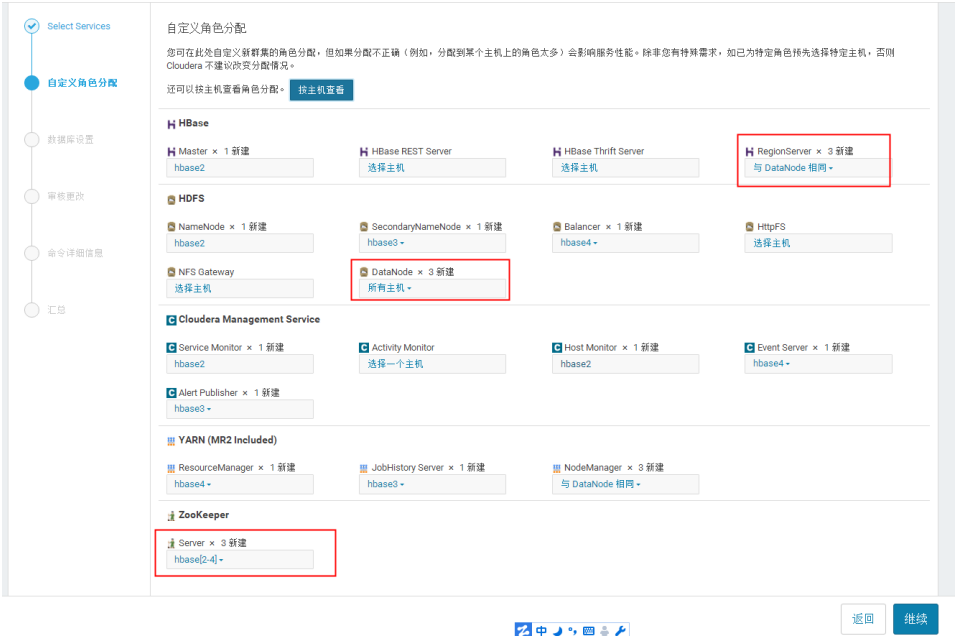


为了更加均衡的分配资源，我们”按主机查看“一下角色分配的具体情况

按主机查看		
主机	计算	现有角色
hbase2	1	M NN SNN B SM HNM ES AP RM JHS S
hbase2-4	2	RS DN NM

此表格分配了相同角色的主机分组。

尤其要注意 zookeeper 的选择，至少 3 个以上



Hbase2 的角色比较多，再选择角色的时候，尽量分散开，选择完之后的角色分配情况。

按主机查看		
主机	计算	现有角色
hbase2	1	M RS DN SNN SM HNM ES AP RM JHS S
hbase3	1	RS DN SNN AP NM JHS S
hbase4	1	RS DN B ES RM NM S

此表格分配了相同角色的主机分组。

选择好之后，继续进行安装

Cloudera Manager

群集设置

Select Services

自定义角色分配

等待更改

命令详细配置

汇总

首次运行 命令

状态 已成功 1月18, 6:15:39早上 4m

Finished First Run of the following services successfully: ZooKeeper, HDFS, HBase, YARN (MR2 Included), Cloudera Management Service.

已安装1个步骤 (共1个)

Show All Steps Show Only Failed Steps Show Only Running Steps

Run is set of services for the first time 已完成5个步骤

首次运行 5个步骤 已完成5个步骤

Ensuring that the expected software releases are installed on hosts. 1月18, 6:15:39早上 5.15s

并行运行 4个步骤 1月18, 6:15:44早上 36.42s

并行运行 2个步骤 1月18, 6:16:20早上 63.3s

并行运行 3个步骤 1月18, 6:17:24早上 111.35s

并行运行 2个步骤 1月18, 6:19:15早上 10.97s

Verifying successful startup of services 1月18, 6:19:28早上 10.38s

返回

继续

至此，CDH6.1.0 已经成功安装成功了，点击”完成“，主界面就出现了。

Cloudera Manager

群集 • 主机 • 诊断 • 审核 • 图表 • 管理 •

语言 帮助 支持 admin

主页 状态 所有运行状况问题 配置 所有最新命令 添加群集 试用 Cloudera Enterprise 60 天

请关闭 Host Monitor 超时。这可能会导致页面响应缓慢。请查看 Host Monitor 的状态。

Cluster 1 (CDH 6.1.0, Parrot)

图表 30分钟 1小时 2小时 6小时 12小时 1天 7d 30d

主机

HBase

HDFS

YARN (MR2 In...

ZooKeeper

Cloudera Management Service

Cloudera Man...

查看 Host Monitor 时发生内部错误

群集 CPU 查询错误

群集磁盘 IO 查询错误

群集网络 IO 查询错误