

Cloudera CDH 6.0.0 Hadoop Cluster Installation Guide (standalone mode) [Kyligence]

1. Enable Root Login

```
$ vim /etc/ssh/sshd_config
#add "PermitRootLogin yes" to the file
$ service ssh reload
```

2. Set hostname in /etc/hostname
3. Add <ip><hostname> to /etc/hosts
4. Add cloudera 6.0.0 repository

```
$ cd /etc/apt/sources.list.d/
$ wget https://archive.cloudera.com/cm6/6.0.0/ubuntu1604/apt/cloudera-manager.list
$ cd ~/
```

5. Add Cloudera archive key

```
$ wget https://archive.cloudera.com/cm6/6.0.0/ubuntu1604/apt/archive.key
$ sudo apt-key add archive.key
$ sudo apt-get update
```

6. Install Java 8 (if needed) and Cloudera Daemons, Server, Agents (since standalone mode, install all packages on one host)

```
$ sudo apt-get install oracle-j2sdk1.8
$ sudo apt-get install cloudera-manager-daemons cloudera-manager-agent cloudera-manager-server
```

7. Set JAVA_HOME and TLS

```
$ sudo JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64 /opt/cloudera/cm-agent/bin/certmanager setup --
configure-services

# check /var/log/cloudera-scm-agent/certmanager.log to see if tls is enabled
```

8. Install any RDBMS, I uses MYSQL here

```
# give root password 'root'
$ sudo apt-get install mysql-server
```

9. Remove and backup mysql log file

```
$ sudo service mysql stop
$ mkdir /var/lib/mysql/mysql_logfile_backup
$ mv /var/lib/mysql/ib_logfile0 /var/lib/mysql/mysql_logfile_backup/ib_logfile0
$ mv /var/lib/mysql/ib_logfile1 /var/lib/mysql/mysql_logfile_backup/ib_logfile1
```

10. Configure MYSQL my.cnf file for adapting Cloudera

```

#add below Statement to my.cnf
#####Statement Start#####
[mysqld]
datadir=/var/lib/mysql
socket=/var/run/mysqld/mysqld.sock
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_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
#expire_logs_days = 10
#max_binlog_size = 100M

#log_bin should be on a disk with enough free space.
#Replace '/var/lib/mysql/mysql_binary_log' with an appropriate path for your
#system and chown the specified folder to the mysql user.
log_bin=/var/lib/mysql/mysql_binary_log

#In later versions of MySQL, if you enable the binary log and do not set
#a server_id, MySQL will not start. The server_id must be unique within
#the replicating group.
server_id=1

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

[mysqld_safe]
log-error=/var/log/mysqld.log
pid-file=/var/run/mysqld/mysqld.pid

sql_mode=STRICT_ALL_TABLES
#####Statement End#####

```

11. Enable start on boot for MYSQL

```

$ sudo apt-get install sysv-rc-conf
$ sysv-rc-conf mysql on

```

12. Configure MYSQL login mechanism

```
$ sudo service mysql start
$ sudo /usr/bin/mysql_secure_installation
# When prompt for "enter root password" : root
# Answer in order: N Y (enter 'root' Y N Y Y
```

13. Install MYSQL JDBC driver

```
$ sudo apt-get install libmysql-java
```

14. Create Table for CDH

```
#login to the database
$ mysql -u root -p

#Enter below Statement
#####Statement Start#####
CREATE DATABASE scm DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON scm.* TO 'scm'@'%' IDENTIFIED BY 'scm_password';

CREATE DATABASE amon DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON amon.* TO 'amon'@'%' IDENTIFIED BY 'amon_password';

CREATE DATABASE rman DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON rman.* TO 'rman'@'%' IDENTIFIED BY 'rman_password';

CREATE DATABASE hue DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON hue.* TO 'hue'@'%' IDENTIFIED BY 'hue_password';

CREATE DATABASE metastore DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON metastore.* TO 'hive'@'%' IDENTIFIED BY 'hive_password';

CREATE DATABASE sentry DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON sentry.* TO 'sentry'@'%' IDENTIFIED BY 'sentry_password';

CREATE DATABASE nav DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON nav.* TO 'nav'@'%' IDENTIFIED BY 'nav_password';

CREATE DATABASE navms DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON navms.* TO 'navms'@'%' IDENTIFIED BY 'navms_password';

CREATE DATABASE oozie DEFAULT CHARACTER SET utf8 DEFAULT COLLATE utf8_general_ci;
GRANT ALL ON oozie.* TO 'oozie'@'%' IDENTIFIED BY 'oozie_password';
#####Statement End#####
```

15. Auto-prepare the scm table for CDH

```
$ sudo /opt/cloudera/cm/schema/scm_prepare_database.sh mysql scm scm
```

16. Start Cloudera Server

```
$ sudo systemctl start cloudera-scm-server
# visit <hostip>:7180 for Cloudera Manager Web UI
```