# mongodb单机副本集安装部署手册

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# ****一、环境准备****

### 1、安装环境

1台linux服务器  
操作系统：CentOS release 6.5 (Final)

### 2、关闭iptables和selinux

# chkconfig iptables off   
# service iptables stop   
# vi /etc/selinux/config   
SELINUX=disabled

# ****二、安装mongodb（yum安装）****

### 1.安装percona软件库

yum install <https://www.percona.com/redir/downloads/percona-release/redhat/latest/percona-release-0.1-4.noarch.rpm>

### 2.安装percona-server-mongodb

yum -y install Percona-Server-MongoDB-32-3.2.10-3.0.el6.x86\_64  
yum install -y numactl

### 3.创建对应目录，修改权限

mkdir /data/mongodb\_master/log -p  
mkdir /data/mongodb\_master/data –p  
mkdir /data/mongodb\_slave/log -p  
mkdir /data/mongodb\_slave/data –p  
cd /data/  
chown [mongod:mongod](http://mongodmongod/) -R mongodb\*

### 4.修改系统配置

echo "never" > /sys/kernel/mm/transparent\_hugepage/enabled  
echo "never" > /sys/kernel/mm/transparent\_hugepage/defrag  
echo 0 > /proc/sys/vm/zone\_reclaim\_mode  
vim /etc/security/limits.conf  
mongod soft nofile 64000  
mongod hard nofile 64000  
mongod soft nproc 32000  
mongod hard nproc 32000

### 5.mongodb配置文件（两个实例分别配置）

cp /etc/mongod.conf /etc/mongod\_master.conf  
vim /etc/mongod\_master.conf

# mongod.conf, Percona Server for MongoDB

# for documentation of all options, see:

#   http://docs.mongo.org/manual/reference/configuration-options/

# Where and how to store data.

storage:

  dbPath: /data/mongodb\_master/data

  journal:

    enabled: true

  engine: wiredTiger

storage.wiredTiger.engineConfig.cacheSizeGB: 8

systemLog:

  destination: file

  logAppend: true

  path: /data/mongodb\_master/log/mongod.log

  timeStampFormat: iso8601-utc

  quiet: true

processManagement:

  fork: true

  pidFilePath: /data/mongodb\_master/data/mongod.pid

# network interfaces

net:

  port: 27017

  bindIp: 0.0.0.0

#security:

#  keyFile: /data/mongodb\_master/data/mongod.keyfile

#  clusterAuthMode: keyFile

#  authorization: enabled

#operationProfiling:

#replication:

#  oplogSizeMB: 2048

#  replSetName: "cashset"

#  secondaryIndexPrefetch: "all"

#sharding:

## Enterprise-Only Options:

#auditLog:

#snmp:

vim /etc/mongod\_slave.conf

# mongod.conf, Percona Server for MongoDB

# for documentation of all options, see:

#   http://docs.mongo.org/manual/reference/configuration-options/

# Where and how to store data.

storage:

  dbPath: /data/mongodb\_slave/data

  journal:

    enabled: true

  engine: wiredTiger

storage.wiredTiger.engineConfig.cacheSizeGB: 8

systemLog:

  destination: file

  logAppend: true

  path: /data/mongodb\_slave/log/mongod.log

  timeStampFormat: iso8601-utc

  quiet: true

processManagement:

  fork: true

  pidFilePath: /data/mongodb\_slave/data/mongod.pid

# network interfaces

net:

  port: 27018

  bindIp: 0.0.0.0

security:

  keyFile: /data/mongodb\_slave/data/mongod.keyfile

 clusterAuthMode: keyFile

  authorization: enabled

#operationProfiling:

replication:

  oplogSizeMB: 2048

  replSetName: "cashset"

  secondaryIndexPrefetch: "all"

#sharding:

## Enterprise-Only Options:

#auditLog:

#snmp:

### 6.修改mongodb启动文件

cp /etc/init.d/mongod /etc/init.d/mongod\_master  
vim /etc/init.d/mongod\_master

修改内容：

CONFIGFILE="/etc/mongod.conf"  
----------  
CONFIGFILE="/etc/mongod\_master.conf"

SYSCONFIG="/etc/sysconfig/mongod"  
----------  
SYSCONFIG=""  
STDOUT="/var/log/mongo/mongod\_master.stdout"   
STDERR="/var/log/mongo/mongod\_master.stderr"

PIDFILEPATH=/var/run/mongod.pid  
----------  
PIDFILEPATH=/data/mongodb\_master/data/mongod.pid

/usr/bin/percona-server-mongodb-helper.sh  
----------  
/usr/bin/percona-server-mongodb-master-helper.sh

mv /etc/init.d/mongod /etc/init.d/mongod\_slave  
vim /etc/init.d/mongod\_slave

修改内容：

CONFIGFILE="/etc/mongod.conf"  
----------  
CONFIGFILE="/etc/mongod\_slave.conf"

SYSCONFIG="/etc/sysconfig/mongod"  
----------  
SYSCONFIG=""  
STDOUT="/var/log/mongo/mongod\_slave.stdout"   
STDERR="/var/log/mongo/mongod\_slave.stderr"

PIDFILEPATH=/var/run/mongod.pid  
----------  
PIDFILEPATH=/data/mongodb\_slave/data/mongod.pid

/usr/bin/percona-server-mongodb-helper.sh  
----------  
/usr/bin/percona-server-mongodb-slave-helper.sh

cp /usr/bin/percona-server-mongodb-helper.sh /usr/bin/percona-server-mongodb-slave-helper.sh  
cp /usr/bin/percona-server-mongodb-helper.sh /usr/bin/percona-server-mongodb-master-helper.sh  
vim  /usr/bin/percona-server-mongodb-master-helper.sh

修改内容为

[ -z "${CONF}" ] && CONF=/etc/mongod.conf  
----------  
[ -z "${CONF}" ] && CONF=/etc/mongod\_master.conf

vim  /usr/bin/percona-server-mongodb-slave-helper.sh

修改内容为

[ -z "${CONF}" ] && CONF=/etc/mongod.conf  
----------  
[ -z "${CONF}" ] && CONF=/etc/mongod\_slave.conf

### 7.启动mongodb服务（只启动节点1，节点2暂时不启动）

service mongod\_master start

# ****三、开启登录验证模式****

注：只需要在节点1上操作

### 1、创建用户

#mongo  
MongoDB shell version: 3.2.10-3.0  
connecting to: test  
> use admin;  
switched to db admin  
> db.createUser({ "user" : "admin", "pwd": "admin",roles:[{role: "root",db:"admin"}]})

### 2、修改配置文件

vim /etc/mongod\_master.conf

#security:

security:

  keyFile: /data/mongodb\_master/data/mongod.keyfile

  clusterAuthMode: keyFile

  authorization: enabled

replication:

  oplogSizeMB: 51200                          #集群oplog大小（50G）

  replSetName: "repset"                       #集群名称，这个记住，下边集群配置会用到

  secondaryIndexPrefetch: "all"

### 3、创建keyfile

openssl rand -base64 756 > /data/mongodb\_master/data/mongod.keyfile

chmod 400 /data/mongodb\_master/data/mongod.keyfile

chown mongod.mongod /data/mongodb\_master/data/mongod.keyfile

**4、拷贝keyfile到每一个节点**

 cp /data/mongodb\_master/data/mongod.keyfile /data/mongodb\_slave/data/

chown mongod.mongod /data/mongodb\_slave/data/mongod.keyfile

### 5、重启mongodb（节点2第一次启动）

service mongod restart                --节点1重启

service mongod start                   --节点2启动

# ****四、配置见证服务****

### 1、创建对应目录，修改权限

mkdir /data/mongodb\_arbiter/data –p  
mkdir /data/mongodb\_arbiter/log -p  
cd /data   
chown [mongod:mongod](http://mongodmongod/) -R mongodb\_arbiter/

cp /data/mongodb\_master/data/mongod.keyfile /data/mongodb\_arbiter/data/

chown [mongod:mongod](http://mongodmongod) /data/mongodb\_arbiter/data/mongod.keyfile

### 2、创建配置文件

cp /etc/mongod\_master.conf /etc/mongod\_arbiter.conf  
vim /etc/mongod\_arbiter.conf

修改：

1、 注释掉下面两行

#engine: wiredTiger

#storage.wiredTiger.engineConfig.cacheSizeGB: 8

2、

  dbPath: /data/mongodb\_master/data    
----------  
  dbPath: /data/mongodb\_arbiter/data

3、

  path: /data/mongodb\_master/log/mongod.log  
----------  
  path: /data/mongodb\_arbiter/log/mongod.log

4、

  pidFilePath: /data/mongodb\_master/data/mongod.pid  
----------  
  pidFilePath: /data/mongodb\_arbiter/data/mongod.pid

5、

  port: 27017  
----------  
  port: 27019

6、

  keyFile: /data/mongodb\_master/data/mongod.keyfile  
----------  
  keyFile: /data/mongodb\_arbiter/data/mongod.keyfile

7、

  oplogSizeMB: 5120  
----------  
  oplogSizeMB: 512

### 3、创建启动文件

cp /etc/init.d/mongod\_master /etc/init.d/mongod\_arbiter  
vim /etc/init.d/mongod\_arbiter

修改内容：

CONFIGFILE="/etc/mongod\_master.conf"  
----------  
CONFIGFILE="/etc/mongod\_arbiter.conf"

STDOUT="/var/log/mongo/mongod\_master.stdout"   
STDERR="/var/log/mongo/mongod\_master.stderr"  
----------  
STDOUT="/var/log/mongo/mongod\_arbiter.stdout"   
STDERR="/var/log/mongo/mongod\_arbiter.stderr"

PIDFILEPATH=/data/mongodb\_master/data/mongod.pid  
----------  
PIDFILEPATH=/data/mongodb\_arbiter/data/mongod.pid

/usr/bin/percona-server-mongodb-master-helper.sh  
----------  
/usr/bin/percona-server-mongodb-arbiter-helper.sh

cp /usr/bin/percona-server-mongodb-helper.sh /usr/bin/percona-server-mongodb-arbiter-helper.sh   
vim  /usr/bin/percona-server-mongodb-master-helper.sh

修改内容为

[ -z "${CONF}" ] && CONF=/etc/mongod.conf  
----------  
[ -z "${CONF}" ] && CONF=/etc/mongod\_arbiter.conf

### 4、启动见证服务

service mongod\_arbiter start

# ****五、集群配置****

#mongo –port 27017  
>use admin  
>db.auth('admin','admin')  
>cfg={ \_id:"repset", members:[ {\_id:0,host:'[localhost:27017](http://localhost:27017)'}] };  
>rs.initiate(cfg);  
>rs.addArb("127.0.0.1:27019")  
> rs.add("[localhost:27018](http://localhost:27018)")  
>rs.status();

[mongodb单机副本集安装部署手册.pdf](/download/attachments/5932882/mongodb%E5%8D%95%E6%9C%BA%E5%89%AF%E6%9C%AC%E9%9B%86%E5%AE%89%E8%A3%85%E9%83%A8%E7%BD%B2%E6%89%8B%E5%86%8C.pdf?version=1&modificationDate=1506064887000&api=v2)