

Redis - sentinel模式集群配置文档

Redis 哨兵模式集群 是官方推荐的高可用 高效率 集群模式

搭建环境 ubuntu16.04.4 Redis4.0.1(目前官方最新稳定版本)

采用命令行方式安装 - 打开终端:

//下载Redis源码包

```
$>wget http://download.redis.io/releases/redis-4.0.1.tar.gz
```

//源码包下载到本地的路径为home文件夹下的用户下面,在usr下创建一个根目录

```
$>sudo mkdir /usr/redis-cluster
```

//将安装包复制到根目录下

```
$>sudo cp redis-4.0.1.tar.gz /usr/redis-cluster/
```

```
$>cd /usr/redis-cluster/
```

//改变一下权限,否则后面会出现解压缩错误,权限不足

```
$>sudo chmod -R a+w /usr/redis-cluster/
```

//解压

```
$>tar -zxf redis-4.0.1.tar.gz
```

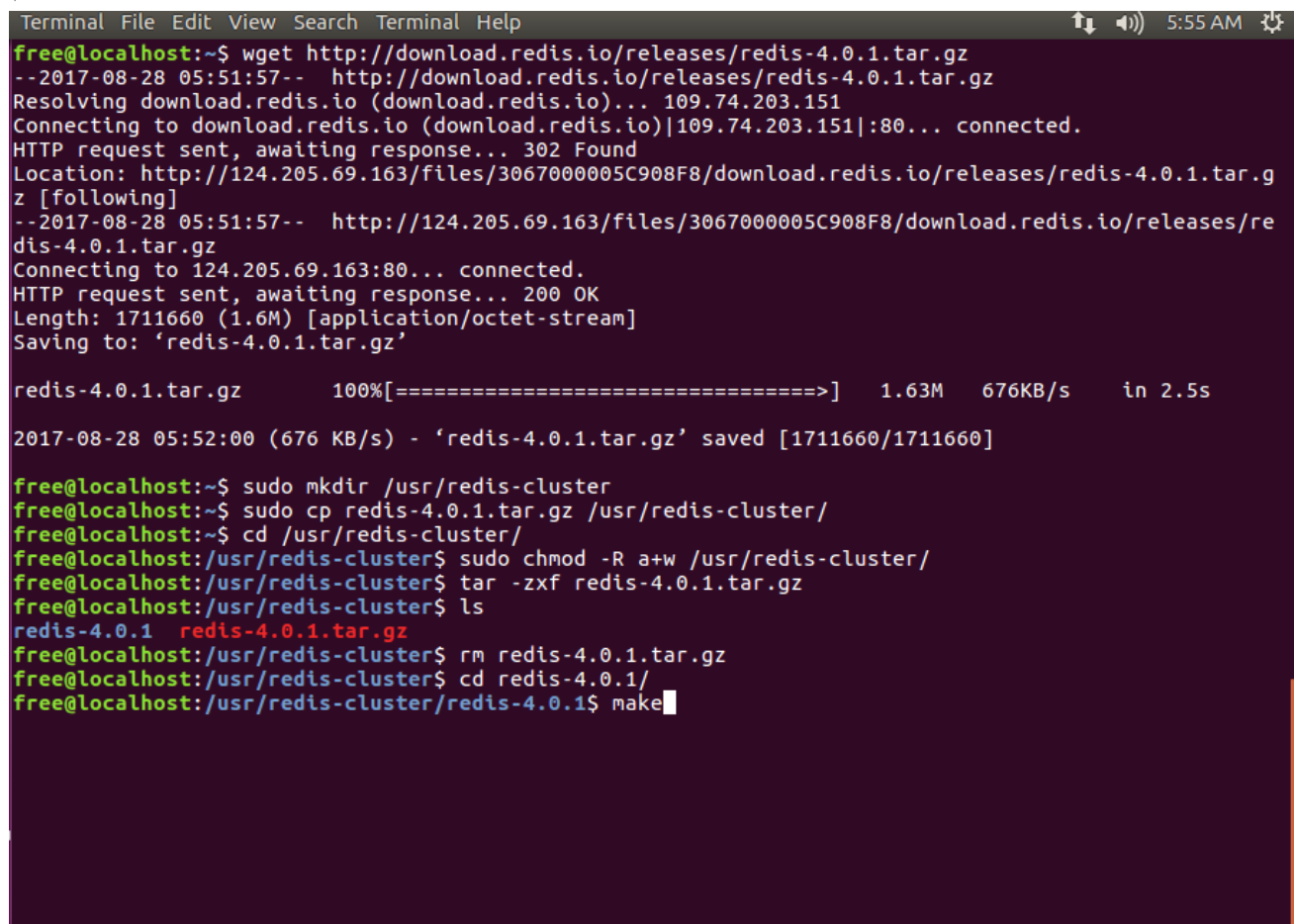
//解压完成 删除压缩包

```
$>rm redis-4.0.1.tar.gz
```

```
$>cd redis-4.0.1/
```

//编译

```
$>make
```



```
Terminal File Edit View Search Terminal Help 5:55 AM
free@localhost:~$ wget http://download.redis.io/releases/redis-4.0.1.tar.gz
--2017-08-28 05:51:57-- http://download.redis.io/releases/redis-4.0.1.tar.gz
Resolving download.redis.io (download.redis.io)... 109.74.203.151
Connecting to download.redis.io (download.redis.io)|109.74.203.151|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://124.205.69.163/files/3067000005C908F8/download.redis.io/releases/redis-4.0.1.tar.g
z [following]
--2017-08-28 05:51:57-- http://124.205.69.163/files/3067000005C908F8/download.redis.io/releases/re
dis-4.0.1.tar.gz
Connecting to 124.205.69.163:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1711660 (1.6M) [application/octet-stream]
Saving to: 'redis-4.0.1.tar.gz'

redis-4.0.1.tar.gz      100%[=====] 1.63M  676KB/s  in 2.5s

2017-08-28 05:52:00 (676 KB/s) - 'redis-4.0.1.tar.gz' saved [1711660/1711660]

free@localhost:~$ sudo mkdir /usr/redis-cluster
free@localhost:~$ sudo cp redis-4.0.1.tar.gz /usr/redis-cluster/
free@localhost:~$ cd /usr/redis-cluster/
free@localhost:/usr/redis-cluster$ sudo chmod -R a+w /usr/redis-cluster/
free@localhost:/usr/redis-cluster$ tar -zxf redis-4.0.1.tar.gz
free@localhost:/usr/redis-cluster$ ls
redis-4.0.1  redis-4.0.1.tar.gz
free@localhost:/usr/redis-cluster$ rm redis-4.0.1.tar.gz
free@localhost:/usr/redis-cluster$ cd redis-4.0.1/
free@localhost:/usr/redis-cluster/redis-4.0.1$ make
```

等待编译完成

```
CC pubsub.o
CC multi.o
CC debug.o
CC sort.o
CC intset.o
CC syncio.o
CC cluster.o
CC crc16.o
CC endianconv.o
CC slowlog.o
CC scripting.o
CC bio.o
CC rio.o
CC rand.o
CC memtest.o
CC crc64.o
CC bitops.o
CC sentinel.o
CC notify.o
CC setproctitle.o
CC blocked.o
CC hyperloglog.o
CC latency.o
CC sparkline.o
CC redis-check-rdb.o
CC redis-check-aof.o
CC geo.o
CC lazyfree.o
CC module.o
CC evict.o
CC expire.o
CC geohash.o
CC geohash_helper.o
CC childinfo.o
CC defrag.o
CC siphash.o
CC rax.o
LINK redis-server
INSTALL redis-sentinel
CC redis-cli.o
LINK redis-cli
CC redis-benchmark.o
LINK redis-benchmark
INSTALL redis-check-rdb
INSTALL redis-check-aof
```

Hint: It's a good idea to run 'make test' ;)

```
make[1]: Leaving directory '/usr/redis-cluster/redis-4.0.1/src'
free@localhost: /usr/redis-cluster/redis-4.0.1$
```

//创建工作目录

```
$>sudo mkdir data
```

```
$>cd ..
```

//创建一个主节点 和 从节点 [服务器资源充足的话 可以采用 一主多从]

```
$>mv redis-4.0.1/ redis-master
```

```
$>cp -R redis-master/ redis-slave
```

```
$>sudo chmod -R a+w /usr/redis-cluster/
```

//修改主节点配置项

```
$>gedit redis-master/redis.conf
```

```

free@localhost:/usr/redis-cluster/redis-4.0.1$ sudo mkdir data
free@localhost:/usr/redis-cluster/redis-4.0.1$ cd ..
free@localhost:/usr/redis-cluster$ mv redis-4.0.1/ redis-master
free@localhost:/usr/redis-cluster$ cp -R redis-master/ redis-slave
free@localhost:/usr/redis-cluster$ sudo chmod -R a+w /usr/redis-cluster/
free@localhost:/usr/redis-cluster$ ls
redis-master  redis-slave
free@localhost:/usr/redis-cluster$ gedit redis-master/redis.conf

```

查看服务器ip地址

```

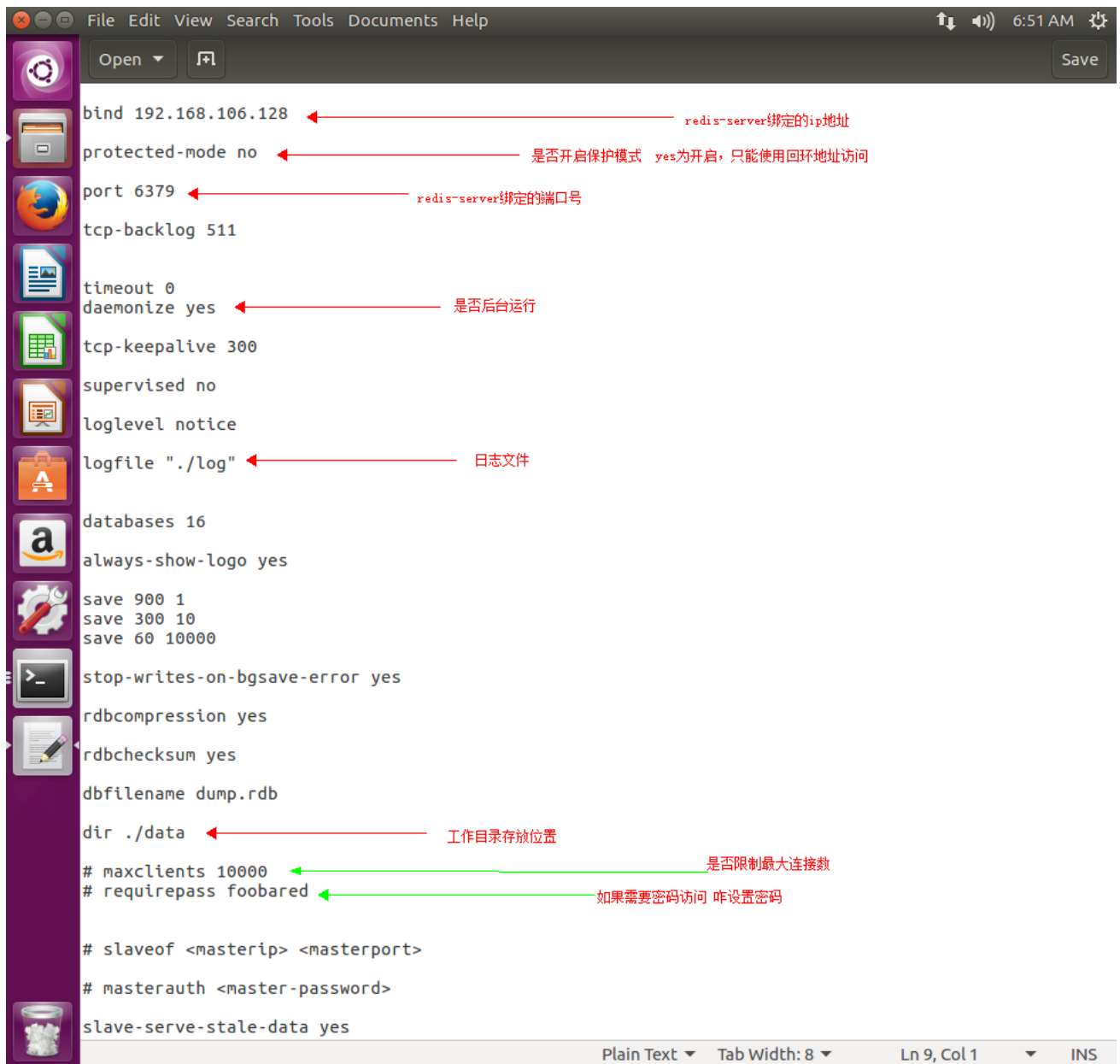
free@localhost: /usr/redis-cluster
free@localhost:/usr/redis-cluster$ ifconfig
ens33      Link encap:Ethernet  HWaddr 00:0c:29:a4:d1:6e
           inet addr:192.168.106.128  Bcast:192.168.106.255  Mask:255.255.255.0
           inet6 addr: fe80::4c89:624c:975:6b1c/64 Scope:Link
           UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
           RX packets:28771006 errors:0 dropped:0 overruns:0 frame:0
           TX packets:28158484 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1000
           RX bytes:4154833456 (4.1 GB)  TX bytes:4897729971 (4.8 GB)

lo         Link encap:Local Loopback
           inet addr:127.0.0.1  Mask:255.0.0.0
           inet6 addr: ::1/128 Scope:Host
           UP LOOPBACK RUNNING  MTU:65536  Metric:1
           RX packets:13601899 errors:0 dropped:0 overruns:0 frame:0
           TX packets:13601899 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1000
           RX bytes:1924508727 (1.9 GB)  TX bytes:1924508727 (1.9 GB)

free@localhost:/usr/redis-cluster$

```

redis.conf配置项



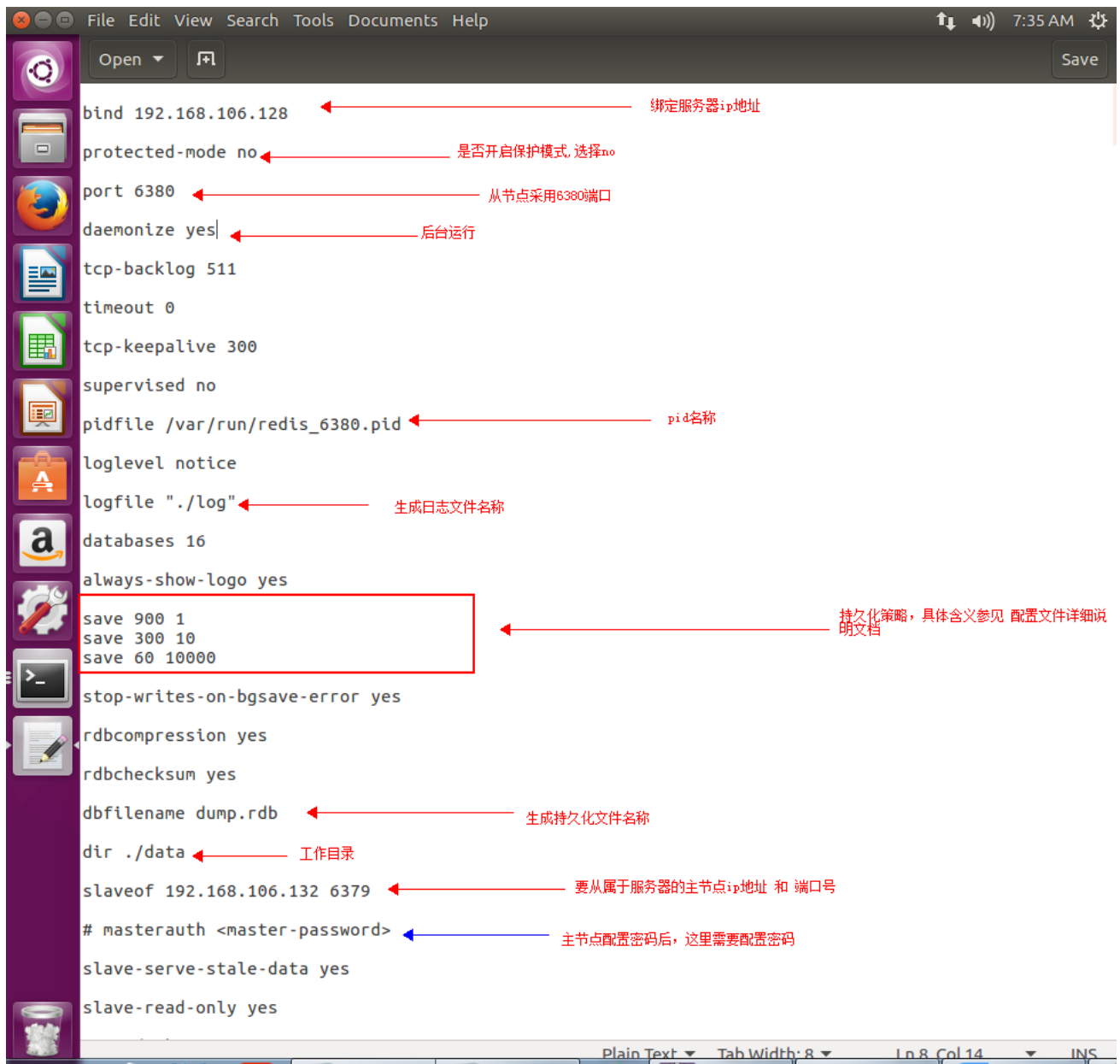
修改完配置参数，主服务器已经搭建完成 先启动主服务器

```
$>cd redis-master/
```

```
$>src/redis-server redis.conf
```

其余两台服务器全采用相同配置参数 只有ip地址需要更换，本文档其余两台地址为192.168.106.132 和 192.168.106.133

配置完其它两台服务器的主节点，开始配置从节点



配置完从节点后 进到从节点目录启动 从节点

```
$>cd ../redis-slave
```

```
$>src/redis-server redis.conf
```

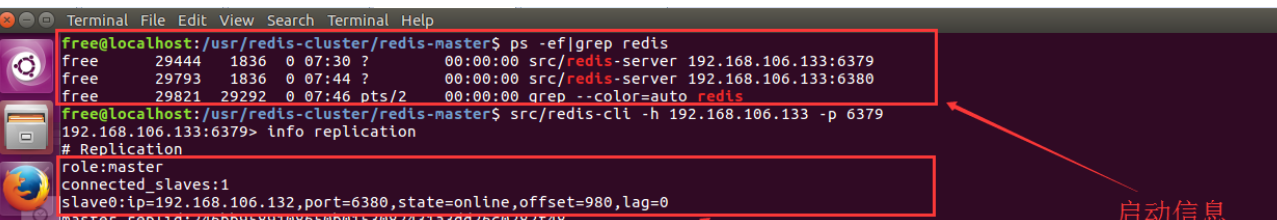
查看三台服务器的启动状况和主从信息

```
free@localhost: /usr/redis-cluster/redis-master
free@localhost: /usr/redis-cluster$ clear

free@localhost: /usr/redis-cluster$ ps -ef|grep redis
free      18286    1630    0  07:29 ?        00:00:00 src/redis-server 192.168.106.128:6379
free      18533    1630    0  07:40 ?        00:00:00 src/redis-server 192.168.106.128:6380
free      18559   14109    0  07:44 pts/18   00:00:00 grep --color=auto redis

free@localhost: /usr/redis-cluster$ cd redis-master/
free@localhost: /usr/redis-cluster/redis-master$ src/redis-cli -h 192.168.106.128 -p 6379
192.168.106.128:6379> info replication
# Replication
role:master
connected_slaves:1
slave0:ip=192.168.106.133,port=6380,state=online,offset=560,lag=0
master_replid:53aed12a2b42830e61f3ea2dd1e6e436f80a134f
master_replid2:0000000000000000000000000000000000000000000000000000000000000000
master_repl_offset:560
second_repl_offset:-1
repl_backlog_active:1
repl_backlog_size:1048576
repl_backlog_first_byte_offset:1
repl_backlog_histlen:560
192.168.106.128:6379> 
```

```
free@localhost: /usr/redis-cluster/redis-master
free@localhost:/usr/redis-cluster/redis-master$ ps -ef|grep redis
free      14252   1929    0  07:30 ?           00:00:00 src/redis-server 192.168.106.132:6379
free      14468   1929    0  07:42 ?           00:00:00 src/redis-server 192.168.106.132:6380
free      14492  13985    0  07:45 pts/2     00:00:00 grep --color=auto redis
free@localhost:/usr/redis-cluster/redis-master$ src/redis-cli -h 192.168.106.132 -p 6379
192.168.106.132:6379> info replication
# Replication
role:master
connected_slaves:1
slave0:ip=192.168.106.128,port=6380,state=online,offset=1106,lag=1
master_replid:ac1c18cdae1717184987ab958804649137c4100
master_replid2:0000000000000000000000000000000000000000
master_repl_offset:1106
second_repl_offset:-1
repl_backlog_active:1
repl_backlog_size:1048576
repl_backlog_first_byte_offset:1
repl_backlog_histlen:1106
192.168.106.132:6379>
```



```
Terminal File Edit View Search Terminal Help
free@localhost: /usr/redis-cluster/redis-master$ ps -ef|grep redis
free    29444    1836    0 07:30 ?        00:00:00 src/redis-server 192.168.106.133:6379
free    29793    1836    0 07:44 ?        00:00:00 src/redis-server 192.168.106.133:6380
free    29821    29292    0 07:46 pts/2    00:00:00 grep  --color=auto  redis

free@localhost: /usr/redis-cluster/redis-master$ src/redis-cli -h 192.168.106.133 -p 6379
192.168.106.133:6379> info replication
# Replication
role:master
connected_slaves:1
slave0:ip=192.168.106.132,port=6380,state=online,offset=980,lag=0
master_replid:2466b9589108650b0153082431a3dd26c0282f48
master_replid2:0000000000000000000000000000000000000000000000000000000000000000
master_repl_offset:980
second_repl_offset:-1
repl_backlog_active:1
repl_backlog_size:1048576
repl_backlog_first_byte_offset:1
repl_backlog_histlen:980
192.168.106.133:6379>
```

下面配置哨兵

```
sentinel.conf (/usr/redis-cluster/redis-slave) - gedit
Open Save
bind 192.168.106.128哨兵ip
port 26379哨兵端口
dir ./sentineldata
#logfile ./logs配置log路径后将不在控制台打印，这里先配置为空，生产环境配上路径
logfile ""
#sentinel monitor groupname ip port number
sentinel monitor mymaster1 192.168.106.128 6379 2
sentinel monitor mymaster2 192.168.106.132 6379 2
sentinel monitor mymaster3 192.168.106.133 6379 2
sentinel down-after-milliseconds mymaster1 30000
sentinel down-after-milliseconds mymaster2 30000
sentinel down-after-milliseconds mymaster3 30000
sentinel parallel-syncs mymaster1 1
sentinel parallel-syncs mymaster2 1
sentinel parallel-syncs mymaster3 1
sentinel failover-timeout mymaster1 180000
sentinel failover-timeout mymaster2 180000
sentinel failover-timeout mymaster3 180000
protected-mode no
Plain Text Tab Width: 8 Ln 9, Col 43 INS
```

groupname为集群名称
ip为要监视的主节点ip
port为要监视的主节点端口号
2为最少需要几个哨兵投票同意进行故障转移

服务器down掉之后 最多可以有几个从节点同步数据，配置为1
则同一时刻最多只有一个从节点处于阻塞状态

关闭保护模式

```
sentinel.conf (/usr/redis-cluster/redis-slave) - gedit
Open Save
bind 192.168.106.132
protected-mode no
port 26379
dir "/tmp"
sentinel myid 6b781cf451d036265d487fc3881dceaa297ff94a
sentinel monitor mymaster1 192.168.106.128 6379 2
sentinel monitor mymaster2 192.168.106.132 6379 2
# Generated by CONFIG REWRITE
sentinel monitor mymaster3 192.168.106.133 6379 2
Plain Text Tab Width: 8 Ln 15, Col 43 INS
```

配置完哨兵后启动哨兵


```
free@localhost: /usr/redis-cluster/redis-slave$ gedit sentinel.conf
free@localhost: /usr/redis-cluster/redis-slave$ src/redis-sentinel sentinel.conf
14662:X 28 Aug 08:33:54.021 # 000000000000 Redis is starting 000000000000
14662:X 28 Aug 08:33:54.021 # Redis version=4.0.1, bits=64, commit=00000000, modified=0, pid=14662, just started
14662:X 28 Aug 08:33:54.021 # Configuration loaded
14662:X 28 Aug 08:33:54.022 * Increased maximum number of open files to 10032 (it was originally set to 1024).

Redis 4.0.1 (00000000/0) 64 bit

Running in sentinel mode
Port: 26379
PID: 14662

http://redis.io

14662:X 28 Aug 08:33:54.022 # WARNING: The TCP backlog setting of 511 cannot be enforced because /proc/sys/net/core/somaxconn is set to the lower value of 128.
14662:X 28 Aug 08:33:54.024 # Sentinel ID is 6b781cf451d036265d487fc3881dceaa297ff94a
14662:X 28 Aug 08:33:54.024 # +monitor master mymaster2 192.168.106.133 6379 quorum 2
14662:X 28 Aug 08:33:54.024 # +monitor master mymaster1 192.168.106.132 6379 quorum 2
14662:X 28 Aug 08:33:54.024 # +monitor master mymaster3 192.168.106.128 6379 quorum 2
14662:X 28 Aug 08:33:54.048 * +slave slave 192.168.106.128:6380 192.168.106.128 6380 @ mymaster1 192.168.106.132 6379
14662:X 28 Aug 08:33:54.050 * +slave slave 192.168.106.133:6380 192.168.106.133 6380 @ mymaster3 192.168.106.128 6379
14662:X 28 Aug 08:33:54.050 * +slave slave 192.168.106.132:6380 192.168.106.132 6380 @ mymaster2 192.168.106.133 6379
14662:X 28 Aug 08:33:54.139 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster1 192.168.106.132 6379
14662:X 28 Aug 08:33:54.141 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster2 192.168.106.133 6379
14662:X 28 Aug 08:33:54.142 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster3 192.168.106.128 6379
14662:X 28 Aug 08:37:18.300 * +sentinel sentinel 2a9b2e5cdfb247e6b9180c6157be08311cd6bd72 192.168.106.133 26379 @ mymaster2 192.168.106.133 6379
14662:X 28 Aug 08:37:18.303 * +sentinel sentinel 2a9b2e5cdfb247e6b9180c6157be08311cd6bd72 192.168.106.133 26379 @ mymaster1 192.168.106.132 6379
14662:X 28 Aug 08:37:18.304 * +sentinel sentinel 2a9b2e5cdfb247e6b9180c6157be08311cd6bd72 192.168.106.133 26379 @ mymaster3 192.168.106.128 6379
```

```
free@localhost: /usr/redis-cluster/redis-slave

Redis 4.0.1 (00000000/0) 64 bit

Running in sentinel mode
Port: 26379
PID: 18930

http://redis.io

18930:X 28 Aug 08:26:41.527 # WARNING: The TCP backlog setting of 511 cannot be enforced because /proc/sys/net/core/somaxconn is set to the lower value of 128.
18930:X 28 Aug 08:26:41.529 # Sentinel ID is b0ae48e53525bb5841c3c90223a0248708b179ce
18930:X 28 Aug 08:26:41.529 # +monitor master mymaster1 192.168.106.128 6379 quorum 2
18930:X 28 Aug 08:26:41.529 # +monitor master mymaster2 192.168.106.132 6379 quorum 2
18930:X 28 Aug 08:26:41.529 # +monitor master mymaster3 192.168.106.133 6379 quorum 2
18930:X 28 Aug 08:26:41.531 * +slave slave 192.168.106.133:6380 192.168.106.133 6380 @ mymaster1 192.168.106.128 6379
18930:X 28 Aug 08:26:41.532 * +slave slave 192.168.106.128:6380 192.168.106.128 6380 @ mymaster2 192.168.106.132 6379
18930:X 28 Aug 08:26:41.534 * +slave slave 192.168.106.132:6380 192.168.106.132 6380 @ mymaster3 192.168.106.133 6379
18930:X 28 Aug 08:33:55.821 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster1 192.168.106.128 6379
18930:X 28 Aug 08:33:55.823 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster2 192.168.106.132 6379
18930:X 28 Aug 08:33:55.824 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster3 192.168.106.133 6379
18930:X 28 Aug 08:37:18.105 * +sentinel sentinel 2a9b2e5cdfb247e6b9180c6157be08311cd6bd72 192.168.106.133 26379 @ mymaster1 192.168.106.128 6379
18930:X 28 Aug 08:37:18.107 * +sentinel sentinel 2a9b2e5cdfb247e6b9180c6157be08311cd6bd72 192.168.106.133 26379 @ mymaster2 192.168.106.132 6379
18930:X 28 Aug 08:37:18.109 * +sentinel sentinel 2a9b2e5cdfb247e6b9180c6157be08311cd6bd72 192.168.106.133 26379 @ mymaster3 192.168.106.133 6379
```

哨兵通过监视主节点，可以发现从节点和监视同一节点的其他哨兵

从节点信息

其他哨兵

```
free@localhost: /usr/redis-cluster/redis-master$ cd ../redis-slave/
free@localhost: /usr/redis-cluster/redis-slave$ gedit sentinel.conf
free@localhost: /usr/redis-cluster/redis-slave$ src/redis-sentinel sentinel.conf
30005:X 28 Aug 08:37:16.089 # 000000000000 Redis is starting 000000000000
30005:X 28 Aug 08:37:16.089 # Redis version=4.0.1, bits=64, commit=00000000, modified=0, pid=30005, just started
30005:X 28 Aug 08:37:16.089 # Configuration loaded
30005:X 28 Aug 08:37:16.089 * Increased maximum number of open files to 10032 (it was originally set to 1024).

Redis 4.0.1 (00000000/0) 64 bit

Running in sentinel mode
Port: 26379
PID: 30005

http://redis.io

30005:X 28 Aug 08:37:16.090 # WARNING: The TCP backlog setting of 511 cannot be enforced because /proc/sys/net/core/somaxconn is set to the lower value of 128.
30005:X 28 Aug 08:37:16.091 # Sentinel ID is 2a9b2e5cdfb247e6b9180c6157be08311cd6bd72
30005:X 28 Aug 08:37:16.091 # +monitor master mymaster2 192.168.106.128 6379 quorum 2
30005:X 28 Aug 08:37:16.091 # +monitor master mymaster1 192.168.106.133 6379 quorum 2
30005:X 28 Aug 08:37:16.091 # +monitor master mymaster3 192.168.106.132 6379 quorum 2
30005:X 28 Aug 08:37:16.092 * +slave slave 192.168.106.133:6380 192.168.106.133 6380 @ mymaster2 192.168.106.128 6379
30005:X 28 Aug 08:37:16.093 * +slave slave 192.168.106.132:6380 192.168.106.132 6380 @ mymaster1 192.168.106.133 6379
30005:X 28 Aug 08:37:16.095 * +slave slave 192.168.106.128:6380 192.168.106.128 6380 @ mymaster3 192.168.106.132 6379
30005:X 28 Aug 08:37:16.407 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster1 192.168.106.133 6379
30005:X 28 Aug 08:37:16.409 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster2 192.168.106.133 6379
30005:X 28 Aug 08:37:17.454 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster1 192.168.106.128 6379
30005:X 28 Aug 08:37:17.455 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster2 192.168.106.132 6379
30005:X 28 Aug 08:37:17.681 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster3 192.168.106.128 6379
30005:X 28 Aug 08:37:17.990 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster2 192.168.106.128 6379
```

从上图可以看出 三台服务器哨兵启动正常 - 通信正常，也可以通过登录哨兵 查看监视情况

连接哨兵 - 查看哨兵状态 [h为host 哨兵ip,p为port 哨兵端口号]

\$>src/redis-cli -h 192.168.106.128 -p 26379

#查看master的状态

sentinel master mymaster

#查看salves的状态

SENTINEL slaves mymaster

#查看哨兵的状态

SENTINEL sentinels mymaster

#获取当前master的地址

SENTINEL get-master-addr-by-name mymaster

#查看哨兵信息 - 哨兵所监测的 主服务器状态

info sentinel

```
Terminal File Edit View Search Terminal Help
free@localhost: /usr/redis-cluster/redis-slave$ src/redis-cli -h 192.168.106.128 -p 26379
192.168.106.128:26379> info sentinel
# Sentinel
sentinel_masters:3
sentinel_tilt:0
sentinel_running_scripts:0
sentinel_scripts_queue_length:0
sentinel_simulate_failure_flags:0
master0:name=mymaster1,status=ok,address=192.168.106.128:6379,slaves=1,sentinels=3
master1:name=mymaster2,status=ok,address=192.168.106.132:6379,slaves=1,sentinels=3
master2:name=mymaster3,status=ok,address=192.168.106.133:6379,slaves=1,sentinels=3
192.168.106.128:26379> sentinel master mymaster1
1) "name"
2) "mymaster1"
3) "ip"
4) "192.168.106.128"
5) "port"
6) "6379"
7) "runid"
8) "812279d63eaa2e618d1620d943557c3fdc69359f"
9) "flags"
10) "master"
11) "link-pending-commands"
12) "0"
13) "link-refcount"
14) "1"
15) "last-ping-sent"
16) "0"
17) "last-ok-ping-reply"
18) "531"
19) "last-ping-reply"
20) "531"
21) "down-after-milliseconds"
22) "30000"
23) "info-refresh"
24) "4932"
25) "role-reported"
26) "master"
27) "role-reported-time"
28) "1249501"
29) "config-epoch"
30) "0"
31) "num-slaves"
32) "1"
33) "num-other-sentinels"
34) "2"
35) "quorum"
36) "2"
37) "failover-timeout"
38) "180000"
39) "parallel-syncs"
40) "1"
192.168.106.128:26379>
```

```
192.168.106.128:26379> SENTINEL slaves mymaster1
1) 1) "name"
2) "192.168.106.133:6380"
3) "ip"
4) "192.168.106.133"
5) "port"
6) "6380"
7) "runid"
8) "dc72c8357566e43db8eccc8f2d8a9f2b08224e13"
9) "flags"
10) "slave"
11) "link-pending-commands"
12) "0"
13) "link-refcount"
14) "1"
15) "last-ping-sent"
16) "0"
17) "last-ok-ping-reply"
18) "571"
19) "last-ping-reply"
20) "571"
21) "down-after-milliseconds"
22) "30000"
23) "info-refresh"
24) "6088"
25) "role-reported"
26) "slave"
27) "role-reported-time"
28) "1381181"
29) "master-link-down-time"
30) "0"
31) "master-link-status"
32) "ok"
33) "master-host"
34) "192.168.106.128"
35) "master-port"
36) "6379"
37) "slave-priority"
38) "100"
39) "slave-repl-offset"
40) "264655"
192.168.106.128:26379>
```

192.168.106.128:26379> SENTINEL sentinels mymaster1

```
1) 1) "name"
2) "2a9b2e5cdfb247e6b9180c6157be08311cd6bd72"
3) "ip"
4) "192.168.106.133"
5) "port"
6) "26379"
7) "runid"
8) "2a9b2e5cdfb247e6b9180c6157be08311cd6bd72"
9) "flags"
10) "sentinel"
11) "link-pending-commands"
12) "0"
13) "link-refcount"
14) "3"
15) "last-ping-sent"
16) "0"
17) "last-ok-ping-reply"
18) "284"
19) "last-ping-reply"
20) "284"
21) "down-after-milliseconds"
22) "30000"
23) "last-hello-message"
24) "1733"
25) "voted-leader"
26) "?"
27) "voted-leader-epoch"
28) "0"
2) 1) "name"
2) "6b781cf451d036265d487fc3881dceaa297ff94a"
3) "ip"
4) "192.168.106.132"
5) "port"
6) "26379"
7) "runid"
8) "6b781cf451d036265d487fc3881dceaa297ff94a"
9) "flags"
10) "sentinel"
11) "link-pending-commands"
12) "0"
13) "link-refcount"
14) "3"
15) "last-ping-sent"
16) "0"
17) "last-ok-ping-reply"
18) "284"
19) "last-ping-reply"
20) "284"
21) "down-after-milliseconds"
22) "30000"
23) "last-hello-message"
```

登录的是128，可以看到其他的两个哨兵信息

说明哨兵配置完毕

测试下哨兵的监测 - 故障转移功能

结束掉192.168.106.133 上面的主节点

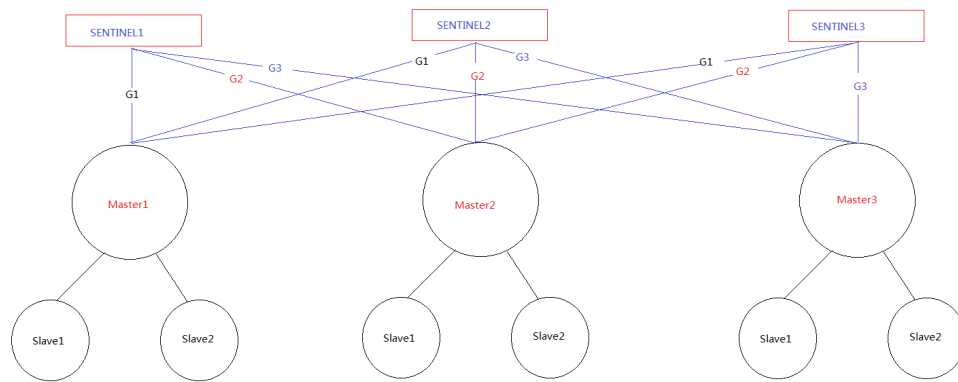
```
free@localhost: /usr/redis-cluster/redis-master
free@localhost: /usr/redis-cluster/redis-master$ src/redis-server redis.conf
free@localhost: /usr/redis-cluster/redis-master$ ps -ef|grep redis
free 29444 1836 0 07:30 ? 00:00:03 src/redis-server 192.168.106.133:6379
free 29793 1836 0 07:44 ? 00:00:03 src/redis-server 192.168.106.133:6380
free 30005 29292 0 09:37 pts/2 00:00:02 src/redis-sentinel 192.168.106.133:26379 [sentinel]
free 30083 29430 0 08:56 pts/9 00:00:00 grep --color=auto redis
free@localhost: /usr/redis-cluster/redis-master$ kill -9 29444
free@localhost: /usr/redis-cluster/redis-master$ ps -ef|grep redis
free 29793 1836 0 07:44 ? 00:00:03 src/redis-server 192.168.106.133:6380
free 30005 29292 0 08:37 pts/2 00:00:02 src/redis-sentinel 192.168.106.133:26379 [sentinel]
free 30085 29430 0 08:56 pts/9 00:00:00 grep --color=auto redis
free@localhost: /usr/redis-cluster/redis-master$
```

结束掉
192.168.106.133:26379

哨兵检测到故障后，开始故障转移
从日志中可以看出整个过程

```
30005:X 28 Aug 08:37:16.407 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster3 192.168.106.132 6379
30005:X 28 Aug 08:37:16.409 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster1 192.168.106.133 6379
30005:X 28 Aug 08:37:17.454 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster2 192.168.106.128 6379
30005:X 28 Aug 08:37:17.455 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster1 192.168.106.133 6379
30005:X 28 Aug 08:37:17.681 * +sentinel sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster3 192.168.106.132 6379
30005:X 28 Aug 08:37:17.990 * +sentinel sentinel b0ae48e53525bb5841c3c90223a0248708b179ce 192.168.106.128 26379 @ mymaster2 192.168.106.128 6379
30005:X 28 Aug 08:57:21.348 # +sdown master mymaster1 192.168.106.133 6379
30005:X 28 Aug 08:57:21.406 # +new-epoch 1
30005:X 28 Aug 08:57:21.407 # +vote-for-leader 6b781cf451d036265d487fc3881dceaa297ff94a 1
30005:X 28 Aug 08:57:21.410 # +odown master mymaster1 192.168.106.133 6379 #quorum 3/2
30005:X 28 Aug 08:57:21.410 # Next failover delay: I will not start a failover before Mon Aug 28 09:03:21 2017
30005:X 28 Aug 08:57:22.204 # +config-update-from sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster2 192.168.106.128 6379
30005:X 28 Aug 08:57:22.204 # +switch-master mymaster2 192.168.106.128 6379 192.168.106.132 6380
30005:X 28 Aug 08:57:22.204 * +slave slave 192.168.106.133:6380 192.168.106.132 6380 @ mymaster2 192.168.106.132 6380
30005:X 28 Aug 08:57:22.204 * +slave slave 192.168.106.128:6379 192.168.106.128 6379 @ mymaster2 192.168.106.132 6380
30005:X 28 Aug 08:57:32.264 * +convert-to-slave slave 192.168.106.128:6379 192.168.106.128 6379 @ mymaster2 192.168.106.132 6380
30005:X 28 Aug 08:57:40.959 * +slave slave 192.168.106.132:6379 192.168.106.132 6379 @ mymaster2 192.168.106.132 6380
30005:X 28 Aug 08:58:29.573 # +new-epoch 2
30005:X 28 Aug 08:58:30.709 # +config-update-from sentinel 6b781cf451d036265d487fc3881dceaa297ff94a 192.168.106.132 26379 @ mymaster3 192.168.106.132 6379
30005:X 28 Aug 08:58:30.709 # +swtch-master mymaster3 192.168.106.132 6379 192.168.106.133 6380
30005:X 28 Aug 08:58:30.709 * +slave slave 192.168.106.128:6380 192.168.106.128 6380 @ mymaster3 192.168.106.133 6380
30005:X 28 Aug 08:58:30.709 * +slave slave 192.168.106.132:6379 192.168.106.132 6379 @ mymaster3 192.168.106.133 6380
30005:X 28 Aug 08:58:30.801 # -odown master mymaster1 192.168.106.133 6379
```

其他哨兵打印信息



redis 哨兵集群模式 配置完毕