

集群的扩容:

1. 首先查看集群中节点的状态, 确认是不是已经开启

```
[root@localhost ~]# ps -ef | grep redis
root      2107      1    0 06:38 ?        00:00:00 redis-server *:7000 [cluster]
root      2115      1    0 06:38 ?        00:00:00 redis-server *:7001 [cluster]
root      2122      1    0 06:38 ?        00:00:00 redis-server *:7002 [cluster]
root      2129      1    0 06:38 ?        00:00:00 redis-server *:7003 [cluster]
root      2137      1    0 06:38 ?        00:00:00 redis-server *:7004 [cluster]
root      2145      1    0 06:39 ?        00:00:00 redis-server *:7005 [cluster]
root      2157    2072    0 06:42 pts/0    00:00:00 redis-server *:6379
root      2186    2167    0 06:43 pts/1    00:00:00 grep --color=auto redis
```

```
[root@localhost ~]# redis-cli -p 7000 cluster nodes
c3ae0a2e67e55bc392b3bef87a2017d9ad42cc87 127.0.0.1:7000@17000 myself,master - 0
1530539078000 1 connected 0-5460
a2db10e4cf1da8f1569feb8cff0a07cb9a66a9be 127.0.0.1:7005@17005 slave 0b5c90031a61
f1894d4c6daa39d39198c1779ad6 0 1530539078000 6 connected
9e9fab23b10c3c98842713301cc8bcaeee8ba434 127.0.0.1:7004@17004 slave dff4f14fd8b2
d48af689901c506b89fa41c4b300 0 1530539079646 5 connected
0b5c90031a61f1894d4c6daa39d39198c1779ad6 127.0.0.1:7002@17002 master - 0 1530539
077000 3 connected 10923-16383
dff4f14fd8b2d48af689901c506b89fa41c4b300 127.0.0.1:7001@17001 master - 0 1530539
080676 2 connected 5461-10922
3b2572e086ec1358635fa4c1c399f6ed83b3a3da 127.0.0.1:7003@17003 slave c3ae0a2e67e5
5bc392b3bef87a2017d9ad42cc87 0 1530539078620 4 connected
```

```
root@localhost config# sed 's/7000/7006/g' redis-7000.conf > redis-7006.conf
root@localhost config# ls
redis-7000.conf redis-7002.conf redis-7004.conf redis-7006.conf
redis-7001.conf redis-7003.conf redis-7005.conf
root@localhost config# sed 's/7000/7007/g' redis-7000.conf > redis-7007.conf
root@localhost config# ls
redis-7000.conf redis-7002.conf redis-7004.conf redis-7006.conf
redis-7001.conf redis-7003.conf redis-7005.conf redis-7007.conf
root@localhost config# cat redis-7006.conf
port 7006
daemonize yes
dir "/tmp/redis-4.0.10/data"
logfile "7006.log"
dbfilename "dump-7006.rdb"
cluster-enabled yes
cluster-config-file nodes-7006.conf
cluster-require-full-coverage no
root@localhost config# redis-server redis-7006.conf
```

```
[root@localhost config]# redis-server redis-7007.conf
[root@localhost config]# ps -ef | grep redis
root      2107      1    0 06:38 ?        00:00:00 redis-server *:7000 [cluster]
root      2115      1    0 06:38 ?        00:00:00 redis-server *:7001 [cluster]
root      2122      1    0 06:38 ?        00:00:00 redis-server *:7002 [cluster]
root      2129      1    0 06:38 ?        00:00:00 redis-server *:7003 [cluster]
root      2137      1    0 06:38 ?        00:00:00 redis-server *:7004 [cluster]
root      2145      1    0 06:39 ?        00:00:00 redis-server *:7005 [cluster]
root      2157    2072    0 06:42 pts/0    00:00:00 redis-server *:6379
root      2235      1    0 06:48 ?        00:00:00 redis-server *:7006 [cluster]
root      2242      1    0 06:49 ?        00:00:00 redis-server *:7007 [cluster]
root      2247    2167    0 06:49 pts/1    00:00:00 grep --color=auto redis
```

```

[root@localhost config]# redis-cli -p 7006
127.0.0.1:7006> cluster nodes
0b5c90031a61f1894d4c6daa39d39198c1779ad6 127.0.0.1:7002@17002 master - 0 1530539457778 3 connected 10
923-16383
dff4f14fd8b2d48af689901c506b89fa41c4b300 127.0.0.1:7001@17001 master - 0 1530539456000 2 connected 54
61-10922
9e9fab23b10c3c98842713301cc8bcaeee8ba434 127.0.0.1:7004@17004 slave dff4f14fd8b2d48af689901c506b89fa4
1c4b300 0 1530539456750 2 connected
a2db10e4cf1da8f1569feb8cff0a07cb9a66a9be 127.0.0.1:7005@17005 slave 0b5c90031a61f1894d4c6daa39d39198c
1779ad6 0 1530539455718 3 connected
3b2572e086ec1358635fa4c1c399f6ed83b3a3da 127.0.0.1:7003@17003 slave c3ae0a2e67e55bc392b3bef87a2017d9a
d42cc87 0 1530539457000 1 connected
f70ade74e364adeaafef78df7428430f9e33884c 127.0.0.1:7006@17006 myself,master - 0 1530539458000 0 conne
cted
186c803fdc8a116fd47e6ed798165ff5e16e2a88 127.0.0.1:7007@17007 master - 0 1530539458806 7 connected
c3ae0a2e67e55bc392b3bef87a2017d9ad42cc87 127.0.0.1:7000@17000 master - 0 1530539459830 1 connected 0-
5460

[root@localhost config]# redis-cli -p 7000 cluster nodes
c3ae0a2e67e55bc392b3bef87a2017d9ad42cc87 127.0.0.1:7000@17000 myself,master - 0 1530539589000 1 conne
cted 0-5460
a2db10e4cf1da8f1569feb8cff0a07cb9a66a9be 127.0.0.1:7005@17005 slave 0b5c90031a61f1894d4c6daa39d39198c
1779ad6 0 1530539588229 6 connected
f70ade74e364adeaafef78df7428430f9e33884c 127.0.0.1:7006@17006 master - 0 1530539590000 0 connected
186c803fdc8a116fd47e6ed798165ff5e16e2a88 127.0.0.1:7007@17007 slave f70ade74e364adeaafef78df7428430f9
e33884c 0 1530539591261 7 connected
9e9fab23b10c3c98842713301cc8bcaeee8ba434 127.0.0.1:7004@17004 slave dff4f14fd8b2d48af689901c506b89fa4
1c4b300 0 1530539592280 5 connected
0b5c90031a61f1894d4c6daa39d39198c1779ad6 127.0.0.1:7002@17002 master - 0 1530539589239 3 connected 10
923-16383
dff4f14fd8b2d48af689901c506b89fa41c4b300 127.0.0.1:7001@17001 master - 0 1530539591000 2 connected 54
61-10922
3b2572e086ec1358635fa4c1c399f6ed83b3a3da 127.0.0.1:7003@17003 slave c3ae0a2e67e55bc392b3bef87a2017d9a
d42cc87 0 1530539591000 4 connected

```

查看 redis-trib.rb

```

[root@localhost src]# ./redis-trib.rb
Usage: redis-trib <command> <options> <arguments ...>

create          host1:port1 ... hostN:portN
                --replicas <arg>
check           host:port
info            host:port
fix             host:port
                --timeout <arg>
reshard         host:port
                --from <arg>
                --to <arg>
                --slots <arg>
                --yes
                --timeout <arg>
                --pipeline <arg>
rebalance       host:port
                --weight <arg>
                --auto-weights
                --use-empty-masters
                --timeout <arg>
                --simulate
                --pipeline <arg>
                --threshold <arg>
add-node        new_host:new_port existing_host:existing_port
                --slave
                --master-id <arg>
del-node        host:port node_id
set-timeout     host:port milliseconds
call            host:port command arg arg .. arg
import          host:port
                --from <arg>

```

```

[root@localhost src]# ./redis-trib.rb reshard 127.0.0.1:7000
>>> Performing Cluster Check (using node 127.0.0.1:7000)
M: c3ae0a2e67e55bc392b3bef87a2017d9ad42cc87 127.0.0.1:7000
  slots:0-5460 (5461 slots) master
  1 additional replica(s)
S: a2db10e4cf1da8f1569feb8cff0a07cb9a66a9be 127.0.0.1:7005
  slots: (0 slots) slave
  replicates 0b5c90031a61f1894d4c6daa39d39198c1779ad6
M: f70ade74e364adeaafef78df7428430f9e33884c 127.0.0.1:7006
  slots: (0 slots) master
  1 additional replica(s)
S: 186c803fdc8a116fd47e6ed798165ff5e16e2a88 127.0.0.1:7007
  slots: (0 slots) slave
  replicates f70ade74e364adeaafef78df7428430f9e33884c
S: 9e9fab23b10c3c98842713301cc8bcaeee8ba434 127.0.0.1:7004
  slots: (0 slots) slave
  replicates dff4f14fd8b2d48af689901c506b89fa41c4b300
M: 0b5c90031a61f1894d4c6daa39d39198c1779ad6 127.0.0.1:7002
  slots:10923-16383 (5461 slots) master
  1 additional replica(s)
M: dff4f14fd8b2d48af689901c506b89fa41c4b300 127.0.0.1:7001
  slots:5461-10922 (5462 slots) master
  1 additional replica(s)
S: 3b2572e086ec1358635fa4c1c399f6ed83b3a3da 127.0.0.1:7003
  slots: (0 slots) slave
  replicates c3ae0a2e67e55bc392b3bef87a2017d9ad42cc87
[OK] All nodes agree about slots configuration.
>>> Check for open slots...
>>> Check slots coverage...
[OK] All 16384 slots covered.
How many slots do you want to move (from 1 to 16384)? yes
How many slots do you want to move (from 1 to 16384)? 4096
What is the receiving node ID? 7006
*** The specified node is not known or not a master, please retry.

```

```

Moving slot 1364 from c3ae0a2e67e55bc392b3bef87a2017d9ad42cc87
Do you want to proceed with the proposed reshard plan (yes/no)? yes
Moving slot 5461 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5462 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5463 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5464 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5465 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5466 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5467 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5468 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5469 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5470 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5471 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5472 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5473 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5474 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5475 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5476 from 127.0.0.1:7001 to 127.0.0.1:7006:
Moving slot 5477 from 127.0.0.1:7001 to 127.0.0.1:7006:

```

```
[root@localhost src]# redis-cli -p 7000 cluster nodes | grep master
c3ae0a2e67e55bc392b3bef87a2017d9ad42cc87 127.0.0.1:7000@17000 myself,master - 0 1530540054000 1 connec
cted 1365-5460
f70ade74e364adeaafefb78df7428430f9e33884c 127.0.0.1:7006@17006 master - 0 1530540052000 8 connected 0-
1364 5461-6826 10923-12287
0b5c90031a61f1894d4c6daa39d39198c1779ad6 127.0.0.1:7002@17002 master - 0 1530540053049 3 connected 12
288-16383
dfff4f14fd8b2d48af689901c506b89fa41c4b300 127.0.0.1:7001@17001 master - 0 1530540052046 2 connected 68
27-10922
[root@localhost src]#
```