

Redis

Redis3集群安装

1. 什么是Redis

Redis是目前一个非常优秀的key-value存储系统。和Memcached类似，它支持存储的value类型相对更多，包括string(字符串)、list(链表)、set(集合)、zset(sorted set有序集合)和hash（哈希类型）。

2. 为什么要安装Redis3集群

Redis3.x支持集群模式，更加可靠！

3. 安装Redis3集群（6台Linux）

参考文章：<http://blog.csdn.net/myrainblues/article/details/25881535>

1. 下载redis3的稳定版本，下载地址<http://download.redis.io/releases/redis-3.0.7.tar.gz>

2. 上传redis-3.0.7.tar.gz到服务器

3. 解压redis源码包

```
tar -zxvf redis-3.0.7.tar.gz -C /usr/local/src/
```

4. 进入到源码包中，编译并安装redis

```
cd /usr/local/src/redis-3.0.7/ make && make install
```

5. 报错，缺少依赖的包

```
(echo "" > .make-ct-flags)
MAKE hiredis
cd hiredis && make static
make[3]: Entering directory `/usr/local/src/redis-3.0.7/deps/hiredis'
gcc -std=c99 -pedantic -c -O3 -fPIC -Wall -W -Wstrict-prototypes -Wwrite-strings -g -ggdb net.c
make[3]: gcc: Command not found
make[3]: *** [net.o] Error 127
make[3]: Leaving directory `/usr/local/src/redis-3.0.7/deps/hiredis'
make[2]: *** [hiredis] Error 2
make[2]: Leaving directory `/usr/local/src/redis-3.0.7/deps'
make[1]: [persist-settings] Error 2 (ignored)
cc adlist.o
/bin/sh: cc: command not found
make[1]: *** [adlist.o] Error 127
make[1]: Leaving directory `/usr/local/src/redis-3.0.7/src'
make: *** [all] Error 2
```

6. 配置本地YUM源并安装redis依赖的rpm包

```
yum -y install gcc
```

7.编译并安装

```
make && make install
```

8.报错，原因是没有安装jemalloc内存分配器，可以安装jemalloc或直接输入

```
make MALLOC=libc && make install [root@redis-01 redis-3.0.7]# make && make install
cd src && make all
make[1]: Entering directory `/usr/local/src/redis-3.0.7/src'
  CC adlist.o
In file included from adlist.c:34:
zmalloc.h:50:31: error: jemalloc/jemalloc.h: No such file or directory
zmalloc.h:55:2: error: #error "Newer version of jemalloc required"
make[1]: *** [adlist.o] Error 1
make[1]: Leaving directory `/usr/local/src/redis-3.0.7/src'
make: *** [all] Error 2
[root@redis-01 redis-3.0.7]#
```

9.重新编译安装

```
make MALLOC=libc && make install
```

10.用同样的方式在其他的机器上编译安装redis

11.在所有机器的/usr/local/下创建一个redis目录，然后拷贝redis自带的配置文件redis.conf到/usr/local/redis

```
mkdir /usr/local/redis cp /usr/local/src/redis-3.0.7/redis.conf /usr/local/redis
```

12.修改所有机器的配置文件redis.conf

```
daemonize yes #redis后台运行 cluster-enabled yes #开启集群把注释去掉 appendonly yes
#开启aof日志，它会每次写操作都记录一条日志
```

```
sed -i 's/daemonize no/daemonize yes/' /usr/local/redis/redis.conf sed -i 's/# cluster-enabled yes/cluster-enabled
yes/' /usr/local/redis/redis.conf sed -i 's/appendonly no/appendonly yes/' /usr/local/redis/redis.conf sed -i 's/#
cluster-node-timeout 15000/cluster-node-timeout 5000/' /usr/local/redis/redis.conf
```

13.启动所有的redis节点

```
cd /usr/local/redis redis-server redis.conf
```

14.查看redis进程状态

```
ps -ef | grep redis root      2400      1   0 01:17 ?        00:00:00 redis-server *:6379 [cluster]
```

15.配置集群：安装ruby和ruby gem工具（redis3集群配置需要ruby的gem工具，类似yum）

yum -y install ruby rubygems (centos6.5的光盘可能缺失rubygems包，需要这样处理：先安装yum -y install ruby，再安装rubygems的依赖：yum install -y ruby-irb yum install -y ruby-rdoc
再用rpm命令安装rubygems包 rpm -ivh /root/rubygems-1.3.7-5.el6.noarch.rpm)

16.使用gem下载redis集群的配置脚本

```
gem install redis ERROR: http://rubygems.org/ does not appear to be a repository  
ERROR: could not find a valid gem 'redis' (>= 0) in any repository
```

17.gem需要上网才能下载，由于安装redis的服务器可能无法访问外网，可以找一台可以上网的服务器执行下面的命令

```
yum -y install ruby rubygems gem install redis
```

将下载好的redis gem（/usr/lib/ruby/gems/1.8/cache/redis-3.2.2.gem）拷贝到其他服务器

```
cd /usr/lib/ruby/gems/1.8/cache for n in {2..6}; do scp redis-3.2.2.gem 192.168.0.3$n:$PWD; done
```

18.使用gem本地模式安装redis-3.2.2.gem

```
gem install --local /usr/lib/ruby/gems/1.8/cache/redis-3.2.2.gem
```

19.使用脚本配置redis集群（在一台机器上执行即可，想要把哪些节点配置成Master节点就放在后面）

```
cd /usr/local/src/redis-3.0.7/src/ service iptables stop ./redis-trib.rb create --replicas 1 192.168.0.34:6379  
192.168.0.35:6379 192.168.0.36:6379 192.168.0.31:6379 192.168.0.32:6379 192.168.0.33:6379
```

20.测试

```
redis-cli -c -p 6379 127.0.0.1:6379> set "hello" 123
-> Redirected to slot [866] located at 192.168.0.33:6379
OK
192.168.0.33:6379> set 123 111
-> Redirected to slot [5970] located at 192.168.0.32:6379
OK
192.168.0.32:6379> get 123
"111"
192.168.0.32:6379> get hello
-> Redirected to slot [866] located at 192.168.0.33:6379
"123"
```

4. Redis3伪分布式安装（1台Linux）

1.下载redis3的稳定版本，下载地址<http://download.redis.io/releases/redis-3.0.7.tar.gz>

2.上传redis-3.0.7.tar.gz到服务器

3.解压redis源码包

```
tar -zxvf redis-3.0.7.tar.gz -C /usr/local/src/
```

4.进入到源码包中，编译并安装redis

```
cd /usr/local/src/redis-3.0.7/ make && make install
```

5.在/usr/local/下创建一个redis目录，然后分别在/usr/local/redis目录创建6个文件夹7000,7001,7002,7003,7004,7005然后拷贝redis自带的配置文件redis.conf到这六个目录中

```
mkdir /usr/local/redis mkdir /usr/local/redis/{7000,7001,7002,7003,7004,7005} cp
/usr/local/src/redis-3.0.7/redis.conf /usr/local/redis/7000 cp /usr/local/src/redis-3.0.7/redis.conf
/usr/local/redis/7001 cp /usr/local/src/redis-3.0.7/redis.conf /usr/local/redis/7002 cp
/usr/local/src/redis-3.0.7/redis.conf /usr/local/redis/7003 cp /usr/local/src/redis-3.0.7/redis.conf
/usr/local/redis/7004 cp /usr/local/src/redis-3.0.7/redis.conf /usr/local/redis/7005
```

6.分别修改这六个目录中的配置文件

```
port 7000 #端口要与其所在的文件名一致 pidfile /var/run/redis-7000.pid #pid要与其所在的文件名一致
daemonize yes cluster-enabled yes appendonly yes
```

7.分别进入到这六个目录启动redis进程

```
cd /usr/local/redis/7000 redis-server redis.conf cd /usr/local/redis/7001 redis-server redis.conf cd  
/usr/local/redis/7002 redis-server redis.conf cd /usr/local/redis/7003 redis-server redis.conf cd  
/usr/local/redis/7004 redis-server redis.conf cd /usr/local/redis/7005 redis-server redis.conf
```