
高级篇

Redis 的安装与使用 (单节点)

IP: 192.168.4.111

环境: CentOS 6.6

Redis 版本: redis-3.0 (考虑到 Redis3.0 在集群和性能提升方面的特性, rc 版为正式版的候选版, 而且很快就出正式版)

安装目录: /usr/local/redis

用户: root

编译和安装所需的包:

```
# yum install gcc tcl
```

下载 3.0 版 Redis (当前最新版 redis-3.0.0-rc5.tar.gz, 请学员们在安装时自行选用最新版)

```
# cd /usr/local/src
```

```
# wget https://github.com/antirez/redis/archive/3.0.0-rc5.tar.gz
```

创建安装目录:

```
# mkdir /usr/local/redis
```

解压:

```
# tar -zxvf 3.0.0-rc5.tar.gz
```

```
# mv redis-3.0.0-rc5 redis3.0
```

```
# cd redis3.0
```

安装(使用 PREFIX 指定安装目录):

```
# make PREFIX=/usr/local/redis install
```

安装完成后, 可以看到/usr/local/redis 目录下有一个 bin 目录, bin 目录里就是 redis 的命令脚本:

```
redis-benchmark redis-check-aof redis-check-dump redis-cli redis-server
```

将 Redis 配置成服务:

按上面的操作步骤, Redis 的启动脚本为: /usr/local/src/redis3.0/utils/redis_init_script

将启动脚本复制到/etc/rc.d/init.d/目录下, 并命名为 redis:

```
# cp /usr/local/src/redis3.0/utils/redis_init_script /etc/rc.d/init.d/redis
```

编辑/etc/rc.d/init.d/redis, 修改相应配置, 使之能注册成为服务:

```
# vi /etc/rc.d/init.d/redis
```

```
#!/bin/sh
```

```
#
```

```
# Simple Redis init.d script conceived to work on Linux systems
```

```
# as it does use of the /proc filesystem.
```

```
REDISPORT=6379
```

```
EXEC=/usr/local/bin/redis-server
```

```
CLIEXEC=/usr/local/bin/redis-cli
```



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```
PIDFILE=/var/run/redis_${REDISPORT}.pid
CONF="/etc/redis/${REDISPORT}.conf"

case "$1" in
    start)
        if [ -f $PIDFILE ]
        then
            echo "$PIDFILE exists, process is already running or crashed"
        else
            echo "Starting Redis server..."
            $EXEC $CONF
        fi
        ;;
    stop)
        if [ ! -f $PIDFILE ]
        then
            echo "$PIDFILE does not exist, process is not running"
        else
            PID=$(cat $PIDFILE)
            echo "Stopping ..."
            $CLIEXEC -p $REDISPORT shutdown
            while [ -x /proc/${PID} ]
            do
                echo "Waiting for Redis to shutdown ..."
                sleep 1
            done
            echo "Redis stopped"
        fi
        ;;
    *)
        echo "Please use start or stop as first argument"
        ;;
esac
```

查看以上 redis 服务脚本，关注标为橙色的几个属性，做如下几个修改的准备：

- (1) 在脚本的第一行后面添加一行内容如下：

```
#chkconfig: 2345 80 90
```

(如果不添加上面的内容，在注册服务时会提示：`service redis does not support chkconfig`)

- (2) REDISPORT 端口保持 6379 不变；(注意，端口名将与下面的配置文件名有关)
- (3) EXEC=/usr/local/bin/redis-server 改为 EXEC=/usr/local/redis/bin/redis-server
- (4) CLIEXEC=/usr/local/bin/redis-cli 改为 CLIEXEC=/usr/local/redis/bin/redis-cli
- (5) 配置文件设置：

创建 redis 配置文件目录



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```
# mkdir /usr/local/redis/conf
```

复制 redis 配置文件 `/usr/local/src/redis3.0/redis.conf` 到 `/usr/local/redis/conf` 目录并按端口号重命名为 `6379.conf`

```
# cp /usr/local/src/redis3.0/redis.conf /usr/local/redis/conf/6379.conf
```

做了以上准备后, 再对 CONF 属性作如下调整:

```
CONF="/etc/redis/${REDISPORT}.conf" 改为 CONF="/usr/local/redis/conf/${REDISPORT}.conf"
```

(6) 更改 redis 开启的命令, 以后台运行的方式执行:

```
$EXEC $CONF & # “&” 作用是将服务转到后面运行
```

修改后的 `/etc/rc.d/init.d/redis` 服务脚本内容为:

```
#!/bin/sh
```

```
#chkconfig: 2345 80 90
```

```
#
```

```
# Simple Redis init.d script conceived to work on Linux systems
```

```
# as it does use of the /proc filesystem.
```

```
REDISPORT=6379
```

```
EXEC=/usr/local/redis/bin/redis-server
```

```
CLIEXEC=/usr/local/redis/bin/redis-cli
```

```
PIDFILE=/var/run/redis_${REDISPORT}.pid
```

```
CONF="/usr/local/redis/conf/${REDISPORT}.conf"
```

```
case "$1" in
```

```
start)
```

```
if [ -f $PIDFILE ]
```

```
then
```

```
    echo "$PIDFILE exists, process is already running or crashed"
```

```
else
```

```
    echo "Starting Redis server..."
```

```
    $EXEC $CONF &
```

```
fi
```

```
::
```

```
stop)
```

```
if [ ! -f $PIDFILE ]
```

```
then
```

```
    echo "$PIDFILE does not exist, process is not running"
```

```
else
```

```
    PID=$(cat $PIDFILE)
```

```
    echo "Stopping ..."
```

```
    $CLIEXEC -p $REDISPORT shutdown
```

```
    while [ -x /proc/${PID} ]
```

```
do
```

```
    echo "Waiting for Redis to shutdown ..."
```



```
        sleep 1
    done
    echo "Redis stopped"

fi
;;
*)
    echo "Please use start or stop as first argument"
    ;;
esac
```

以上配置操作完成后, 便可将 Redis 注册成为服务:

```
# chkconfig --add redis
```

防火墙中打开对应的端口

```
# vi /etc/sysconfig/iptables
```

添加:

```
-A INPUT -m state --state NEW -m tcp -p tcp --dport 6379 -j ACCEPT
```

重启防火墙:

```
# service iptables restart
```

修改 redis 配置文件设置:

```
# vi /usr/local/redis/conf/6379.conf
```

修改如下配置

```
daemonize no 改为> daemonize yes
```

```
pidfile /var/run/redis.pid 改为> pidfile /var/run/redis_6379.pid
```

启动 Redis 服务

```
# service redis start
```

将 Redis 添加到环境变量中:

```
# vi /etc/profile
```

在最后添加以下内容:

```
## Redis env
```

```
export PATH=$PATH:/usr/local/redis/bin
```

使配置生效:

```
# source /etc/profile
```

现在就可以直接使用 redis-cli 等 redis 命令了:

```
[root@edu-cache-01 bin]# redis-cli
127.0.0.1:6379> set wusc WuShuicheng
OK
127.0.0.1:6379> get wusc
"WuShuicheng"
127.0.0.1:6379>
```

关闭 Redis 服务



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```
# service redis stop
```

默认情况下，Redis 开启安全认证，可以通过/usr/local/redis/conf/6379.conf 的 requirepass 指定一个验证密码。

Redis 的使用的 Demo 样例讲解与演示：

具体内容请参考样例代码和视频教程

