

## Docker 虚拟化（Ubuntu 14.04 64 位）

### 文档更改记录

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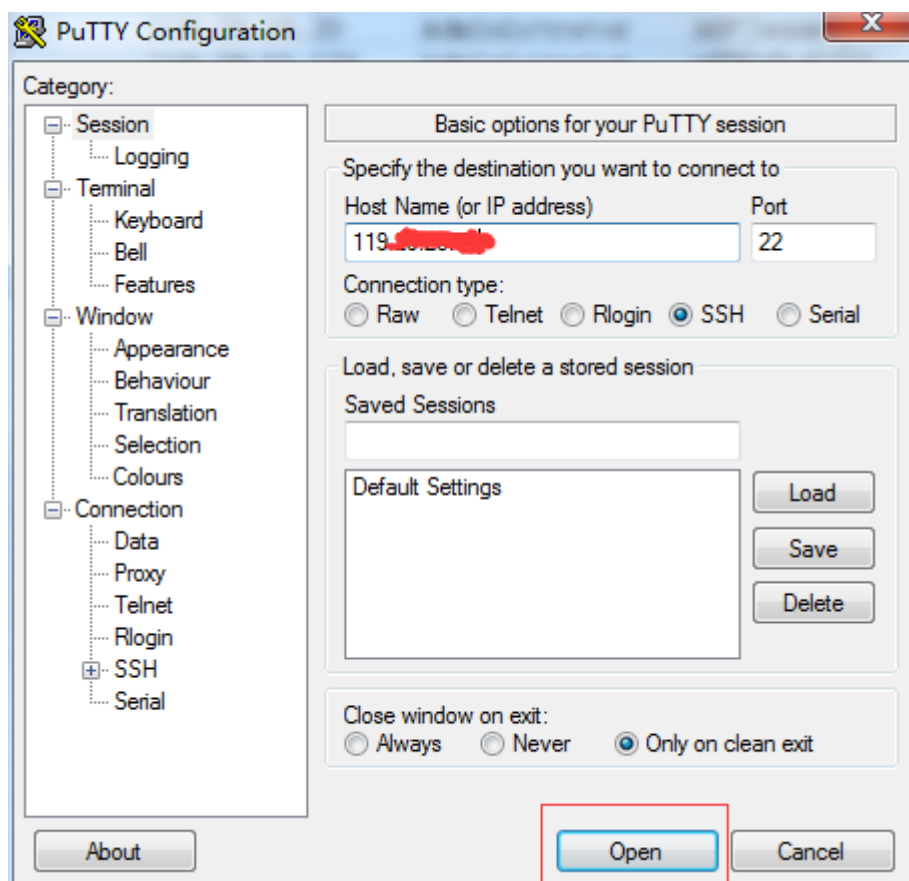
## 常见问题说明：

操作系统为 ubuntu 12.04 64 位，感谢您支持康展云计算。

### 1、远程登录服务器：

下载 linux 端的远程工具 putty

下载后解压并打开 putty.exe，并输入您的服务器 IP 及端口，端口一般默认为 22。



注意：

(1)腾讯云装有 ubuntu 系统的云服务器首次用 ubuntu 的账户远程登陆，不能用 root 账号远程登陆。

```
ubuntu@VM115-5-ubuntu: ~  
login as: ubuntu  
ubuntu@115-5-ubuntu:~$ sudo passwd root  
Welcome to Ubuntu 14.04.1 LTS (GNU/Linux 3.13.0-36-generic x86_64)  
  
* Documentation:  https://help.ubuntu.com/  
  
System information as of Thu Nov 29 11:59:12 CST 2018  
  
System load: 0.0                Memory usage: 7%   Processes:      95  
Usage of /:  4.2% of 49.09GB    Swap usage:   0%   Users logged in: 0  
  
Graph this data and manage this system at:  
https://landscape.canonical.com/  
Last login: Wed Jun 17 11:15:18 2015 from 115.238.88.202  
ubuntu@VM115-5-ubuntu:~$
```

(2) 用 ubuntu 账户登录服务器后，命令行执行 `sudo passwd root` 回车设置 root 超级用户密码。

(需 2 次输入相同密码，密码不显示)

```
ubuntu@VM115-5-ubuntu:~$ sudo passwd root  
Enter new UNIX password:  
Retype new UNIX password:  
passwd: password updated successfully
```

再输入 `su` 回车，默认切换到 root 用户，输入 root 用户密码，即可使用超级权限 root 用户操作服务器。

```
ubuntu@VM115-5-ubuntu:~$ su  
Password:  
root@VM115-5-ubuntu:/home/ubuntu#
```

(3) 默认使用 ubuntu 账户登录后操作服务器时，因为是普通用户，涉及到修改、执行等命令前需加 `sudo` 命令。

## 2、软件安装方式

(以下命令为 ubuntu 用户下，操作命令)

镜像版本：ubuntu 12.04 64 位/docker 1.8.2

```
$ sudo apt-get update

$ sudo apt-get install docker.io
```

### 3、云服务器配置要求

镜像需要云服务器最低配置要求：1 核/512M 及以上

具体云服务器配置要求，根据您的业务情况来定。比如您的容器应用不多，可以选择中低配云主机来使用镜像。如果您的容器应用多，则需要选择中高配云主机来使用镜像。

### 4、软件版本号、开源协议列表

#### docker

版本：1.8.2

开源协议：apache2

协议链接：<http://www.apache.org/licenses/LICENSE-2.0.txt>

### 5、软件目录及配置列表

软件配置目录：/etc/default/docker.io

软件数据存储目录：/var/lib/docker

## 6、软件操作命令汇总

服务启动，停止，重启操作

docker:           sudo service docker start/stop/restart

默认用命令安装后是自动启动，可用命令 `ps -axf | grep docker` 查看 docker 进程

```
ubuntu@VM-10-10-10-10:~$ ps -axf | grep docker
Warning: bad ps syntax, perhaps a bogus '-'? See http://procps.sf.net/faq.html
 6834 pts/0    S+      0:00 |          \_ grep docker
 6614 ?        Ssl     0:00 /usr/bin/docker daemon
```

## 7、开机自启动

已将相关软件启动脚本加入/etc/rc.local 开机自启动。

## 8、系统变更列表

安装软件，系统安装过的一些依赖包如下：

ufs-tools cgroup-lite git git-man liberror-perl

## 9、关于卸载

如何卸载镜像环境中安装的软件，可以参考如下命令完成卸载：

sudo apt-get remove docker.io

## 10、附录教程：制作 Docker Redis

(当前操作均在 ubuntu 用户、家目录/home/ubuntu/，若切换为其他目录操作，命令前需加 sudo)

### 1. 创建 Redis 目录

命令行输入：mkdir redis

```
ubuntu@VM-106-ubuntu:~$ mkdir redis
ubuntu@VM-106-ubuntu:~$ ls
redis
```

### 2. 制作 Dockerfile

命令行输入：cd redis (进 redis 目录)

```
ubuntu@VM-106-ubuntu:~$ cd redis
```

命令行输入：vi Dockerfile (创建 Dockerfile 文件)

```
ubuntu@VM-106-ubuntu:~/redis$ vi Dockerfile
```

在文件中加入如下内容：

```
FROM centos:centos6
```

```
MAINTAINER bryan weigang.zwg@kzyjs-inc.com
```

```
# install redis
```

```
RUN yum install -y curl tar make gcc wget
```

```
RUN cd /usr/local/src && \
```

```
  wget http://download.redis.io/redis-stable.tar.gz && \
```

```
  tar xf redis-stable.tar.gz && \
```

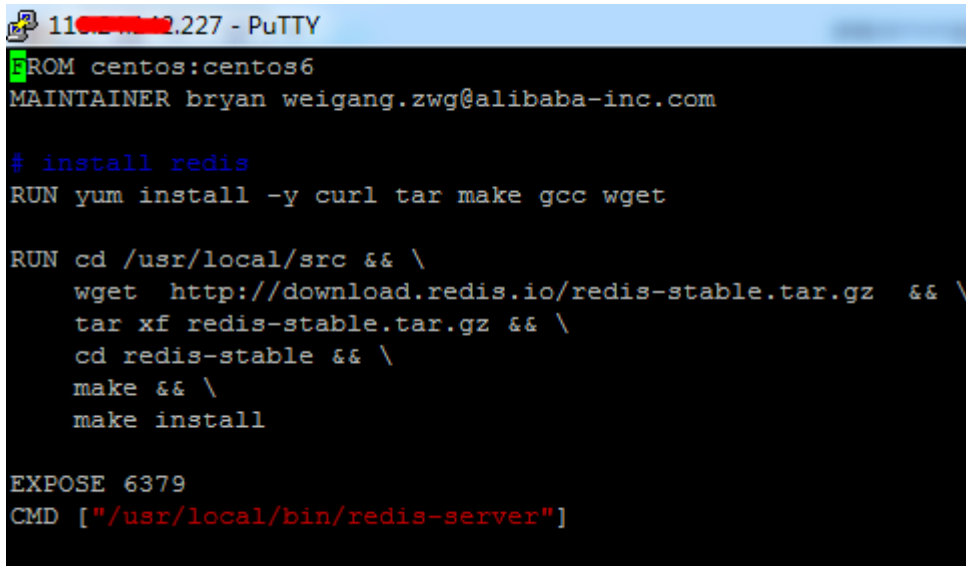
```
  cd redis-stable && \
```

```
  make && \
```

make install

EXPOSE 6379

CMD ["/usr/local/bin/redis-server"]



```
11:22:22 - PuTTY
FROM centos:centos6
MAINTAINER bryan weigang.zwg@alibaba-inc.com

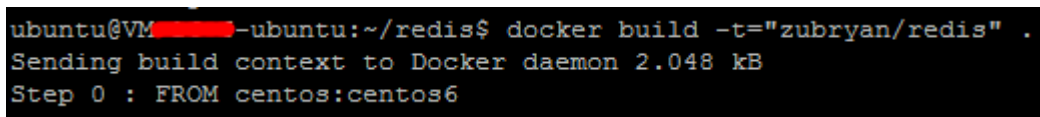
# install redis
RUN yum install -y curl tar make gcc wget

RUN cd /usr/local/src && \
  wget http://download.redis.io/redis-stable.tar.gz && \
  tar xf redis-stable.tar.gz && \
  cd redis-stable && \
  make && \
  make install

EXPOSE 6379
CMD ["/usr/local/bin/redis-server"]
```

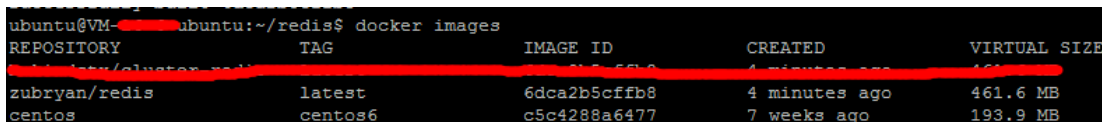
### 3. 构造 docker image

命令行输入命令 : docker build -t="zubryan/redis" .



```
ubuntu@VM-100-1-ubuntu:~/redis$ docker build -t="zubryan/redis" .
Sending build context to Docker daemon 2.048 kB
Step 0 : FROM centos:centos6
```

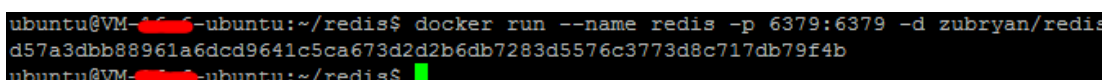
等待镜像制作完成 , 命令行输入 : docker images ( 查看镜像 )



```
ubuntu@VM-100-1-ubuntu:~/redis$ docker images
REPOSITORY          TAG          IMAGE ID          CREATED          VIRTUAL SIZE
zubryan/redis       latest      6dca2b5cffb8     4 minutes ago   461.6 MB
centos               centos6     c5c4288a6477     7 weeks ago     193.9 MB
```

### 4. 运行 Redis 容器

命令行输入 : docker run --name redis -p 6379:6379 -d zubryan/redis



```
ubuntu@VM-100-1-ubuntu:~/redis$ docker run --name redis -p 6379:6379 -d zubryan/redis
d57a3dbb88961a6dcd9641c5ca673d2d2b6db7283d5576c3773d8c717db79f4b
ubuntu@VM-100-1-ubuntu:~/redis$
```

命令行输入 : docker ps -l

```
ubuntu@VM-100-ubuntu:~/redis$ docker ps -l
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
d57a3dbb8896	zubryan/redis	"/usr/local/bin/redis"	3 minutes ago	Up 3 minutes	0.0.0.0:6379->6379/tcp	redis

## 5. 验证 Redis 容器运行

命令行输入：sudo apt-get install redis-server

```
ubuntu@VM-100-ubuntu:~/redis$ sudo apt-get install redis-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libjpeg-turbo8 libjpeg8 libxslt1.1 libgd2-noxpm
Use 'apt-get autoremove' to remove them.
The following NEW packages will be installed:
  redis-server
0 upgraded, 1 newly installed, 0 to remove and 108 not upgraded.
Need to get 204 kB of archives.
After this operation, 523 kB of additional disk space will be used.
Get:1 http://mirrors.tencentyun.com/ubuntu/ precise/universe redis-server amd64 2:2.2.12-1build1 [204 kB]
Fetched 204 kB in 0s (553 kB/s)
Selecting previously unselected package redis-server.
(Reading database ... 60816 files and directories currently installed.)
Unpacking redis-server (from ../redis-server_2%3a2.2.12-1build1_amd64.deb) ...
Processing triggers for ureadahead ...
Processing triggers for man-db ...
Setting up redis-server (2:2.2.12-1build1) ...
Starting redis-server: redis-server.
```

命令行输入：redis-cli

```
ubuntu@VM-100-ubuntu:~/redis$ redis-cli
redis 127.0.0.1:6379>
```

redis 127.0.0.1:6379> info

```
redis 127.0.0.1:6379> info
DENIED Redis is running in protected mode because protected mode is enabled, no bind address was specified, no authentication password is requested to clients. In this mode connections are only accepted from the loopback interface. If you want to connect from external computers to Redis you may adopt one of the following solutions: 1) Just disable protected mode sending the command 'CONFIG SET protected-mode no' from the loopback interface by connecting to Redis from the same host the server is running, however MAKE SURE Redis is not publicly accessible from internet if you do so. Use CONFIG REWRITE to make this change permanent. 2) Alternatively you can just disable the protected mode by editing the Redis configuration file, and setting the protected mode option to 'no', and then restarting the server. 3) If you started the server manually just for testing, restart it with the '--protected-mode no' option. 4) Setup a bind address or an authentication password. NOTE: You only need to do one of the above things in order for the server to start accepting connections from the outside.
redis 127.0.0.1:6379>
```