

```
vagrant@controller: /etc/apt x + v
PS D:\subject\云计算\test> vagrant up
==> vagrant: A new version of Vagrant is available: 2.2.10 (installed version: 2.2.0)!
==> vagrant: To upgrade visit: https://www.vagrantup.com/downloads.html

Bringing machine 'controller' up with 'virtualbox' provider...
Bringing machine 'network' up with 'virtualbox' provider...
Bringing machine 'compute' up with 'virtualbox' provider...
==> controller: Importing base box 'trusty64'...
==> controller: Matching MAC address for NAT networking...
==> controller: Setting the name of the VM: test_controller_1602420829557_58820
==> controller: Clearing any previously set forwarded ports...
==> controller: Clearing any previously set network interfaces...
==> controller: Preparing network interfaces based on configuration...
controller: Adapter 1: nat
controller: Adapter 2: hostonly
controller: Adapter 3: hostonly
controller: Adapter 4: hostonly
==> controller: Forwarding ports...
controller: 22 (guest) => 2222 (host) (adapter 1)
==> controller: Running 'pre-boot' VM customizations...
==> controller: Booting VM...
==> controller: Waiting for machine to boot. This may take a few minutes...
controller: SSH address: 127.0.0.1:2222
controller: SSH username: vagrant
controller: SSH auth method: private key
controller: Warning: Connection aborted. Retrying...
controller:
controller: Vagrant insecure key detected. Vagrant will automatically replace
controller: this with a newly generated keypair for better security.
controller:
```

启动虚拟机

```
vagrant@controller: /etc/apt x + v
==> compute: Setting hostname...
==> compute: Configuring and enabling network interfaces...
==> compute: Mounting shared folders...
compute: /vagrant => D:\subject\云计算\test
PS D:\subject\云计算\test> vagrant ssh controller
vagrant@127.0.0.1's password:
Welcome to Ubuntu 14.04.6 LTS (GNU/Linux 3.13.0-170-generic x86_64)

 * Documentation:  https://help.ubuntu.com/
System information as of Sun Oct 11 12:54:24 UTC 2020

System load:  0.28           Processes:           96
Memory usage: 6%            IP address for eth0: 10.0.2.15
Swap usage:   0%

Graph this data and manage this system at:
https://landscape.canonical.com/

UA Infrastructure Extended Security Maintenance (ESM) is not enabled.

0 updates can be installed immediately.
0 of these updates are security updates.

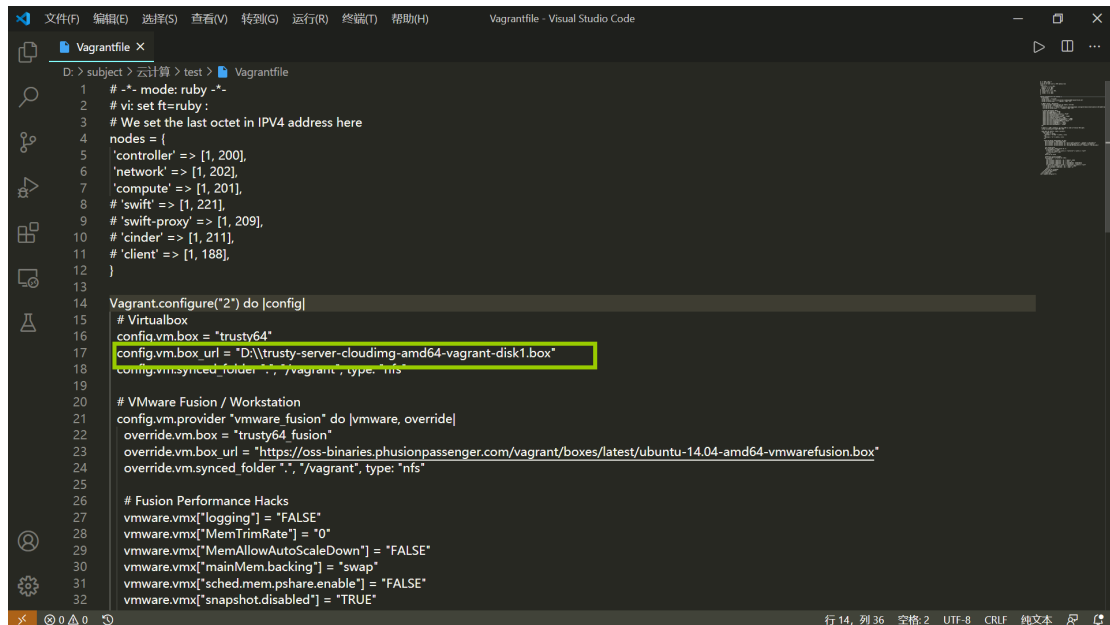
Enable UA Infrastructure ESM to receive 64 additional security updates.
See https://ubuntu.com/advantage or run: sudo ua status

New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.
```

ssh 通信成功



利用 virtual box 查看虚拟机



profile 修改

```
vagrant@controller: /etc/apt
PS D:\subject\云计算\test> vagrant halt
==> compute: Attempting graceful shutdown of VM...
==> network: Attempting graceful shutdown of VM...
==> controller: Attempting graceful shutdown of VM...
PS D:\subject\云计算\test> vagrant up
Bringing machine 'controller' up with 'virtualbox' provider...
Bringing machine 'network' up with 'virtualbox' provider...
Bringing machine 'compute' up with 'virtualbox' provider...
==> controller: Clearing any previously set forwarded ports...
==> controller: Clearing any previously set network interfaces...
==> controller: Preparing network interfaces based on configuration...
controller: Adapter 1: nat
controller: Adapter 2: hostonly
controller: Adapter 3: hostonly
controller: Adapter 4: hostonly
==> controller: Forwarding ports...
controller: 22 (guest) => 2222 (host) (adapter 1)
==> controller: Running 'pre-boot' VM customizations...
==> controller: Booting VM...
==> controller: Waiting for machine to boot. This may take a few minutes...
controller: SSH address: 127.0.0.1:2222
controller: SSH username: vagrant
controller: SSH auth method: private key
==> controller: Machine booted and ready!
==> controller: Checking for guest additions in VM...
controller: The guest additions on this VM do not match the installed version of
controller: VirtualBox! In most cases this is fine, but in rare cases it can
controller: prevent things such as shared folders from working properly. If you see
controller: shared folder errors, please make sure the guest additions within the
controller: virtual machine match the version of VirtualBox you have installed on
```

关闭虚拟机并且重启成功



virtual box 查看虚拟机

```

vagrant@controller:~/etc/apt$ cd /etc/apt/
vagrant@controller:~/etc/apt$ sudo cp sources.list source.list.bk
vagrant@controller:~/etc/apt$ sudo vim source.list
vagrant@controller:~/etc/apt$ sudo vim source.list
vagrant@controller:~/etc/apt$ sudo apt-get update
0% [Waiting for headers] [Connecting to security.ubuntu.com (91.1
Get:1 https://mirrors.tuna.tsinghua.edu.cn trusty InRelease

0% [Waiting for headers] [Connecting to security.ubuntu.com (91.1
Ign https://mirrors.tuna.tsinghua.edu.cn trusty InRelease

5% [Waiting for headers] [Connecting to security.ubuntu.com (91.1
Ign http://archive.ubuntu.com trusty InRelease
8% [Waiting for headers] [Connecting to security.ubuntu.com (91.1
100% [Waiting for headers] [Connecting to security.ubuntu.com (91
100% [InRelease gpgv 65.9 kB] [Waiting for headers] [Connecting t
100% [Waiting for headers] [Connecting to security.ubuntu.com (91
Get:2 https://mirrors.tuna.tsinghua.edu.cn trusty-backports InRelease

100% [Waiting for headers] [Connecting to security.ubuntu.com (91
100% [Waiting for headers] [Connecting to security.ubuntu.com (91
100% [2 InRelease gpgv 65.9 kB] [Waiting for headers] [Connecting
100% [Waiting for headers] [Connecting to security.ubuntu.com (91
Get:3 https://mirrors.tuna.tsinghua.edu.cn trusty-security InRelease

100% [Waiting for headers] [Connecting to security.ubuntu.com (91
100% [Waiting for headers] [Connecting to security.ubuntu.com (91
100% [3 InRelease gpgv 65.9 kB] [Waiting for headers] [Connecting
100% [Waiting for headers] [Connecting to security.ubuntu.com (91
Get:4 https://mirrors.tuna.tsinghua.edu.cn trusty Release.gpg

```

更换为清华源

```

vagrant@controller:~/etc/apt$ sudo vim /etc/profile
vagrant@controller:~/etc/apt$ source /etc/profile

```

```

vagrant@controller:~/etc/apt$ sudo vim /etc/profile
vagrant@controller:~/etc/apt$ echo "mysql-server-5.5 mysql-server/root_password password $MYSQL_ROOT_PASS" | sudo debconf-set-selections
vagrant@controller:~/etc/apt$ echo "mysql-server-5.5 mysql-server/root_password_again password $MYSQL_ROOT_PASS" | sudo debconf-set-selections
vagrant@controller:~/etc/apt$ echo "mysql-server-5.5 mysql-server/root_password seen true" | sudo debconf-set-selections
vagrant@controller:~/etc/apt$ echo "mysql-server-5.5 mysql-server/root_password_again seen true" | sudo debconf-set-selections
vagrant@controller:~/etc/apt$ echo "mysql-server-5.5 mysql-server/root_password seen true" | sudo debconf-set-selections
vagrant@controller:~/etc/apt$ echo "mysql-server-5.5 mysql-server/root_password_again seen true" | sudo debconf-set-selections

```

修改 profile, debconf

```

vagrant@controller:~/etc/mysql/conf.d$ sudo chmod 777 /etc/mysql/conf.d
chmod: changing permissions of '/etc/mysql/conf.d': Operation not permitted
vagrant@controller:~/etc/mysql/conf.d$ sudo chmod 777 /etc/mysql/conf.d
vagrant@controller:~/etc/mysql/conf.d$ sudo echo "[mysqld] skip-name-resolve" > /etc/mysql/conf.d/skip-name-resolve.cnf

```

加速 MariaDB

```

vagrant@controller:~/etc/mysql/conf.d$ mysql -u root -p${MYSQL_ROOT_PASS} -h localhost -e "GRANT ALL ON *.* to root@localhost IDENTIFIED BY \"${MYSQL_ROOT_PASS}\" WITH GRANT OPTION;"
vagrant@controller:~/etc/mysql/conf.d$ mysql -u root -p${MYSQL_ROOT_PASS} -h localhost -e "GRANT ALL ON *.* to root@\"${MYSQL_HOST}\" IDENTIFIED BY \"${MYSQL_ROOT_PASS}\" WITH GRANT OPTION;"
vagrant@controller:~/etc/mysql/conf.d$ mysql -u root -p${MYSQL_ROOT_PASS} -h localhost -e "GRANT ALL ON *.* to root@\"%\" IDENTIFIED BY \"${MYSQL_ROOT_PASS}\" WITH GRANT OPTION;"
vagrant@controller:~/etc/mysql/conf.d$ mysqladmin -u root -p${MYSQL_ROOT_PASS} flush-privileges
vagrant@controller:~/etc/mysql/conf.d$

```

root user 的权限赋予



```

Reading package lists... Done
vagrant@controller:~$ sudo apt-get install ntp keystone python-keyring
Reading package lists... Done
Building dependency tree
Reading state information... Done
python-keyring is already the newest version.
python-keyring set to manually installed.
The following extra packages will be installed:
  libjs-sphinxdoc libjs-underscore libopts25 librabbitmq1 libxslt1.1
  python-amqp python-anyjson python-babel python-babel-localedata
  python-decorator python-dns python-dogpile.cache python-dogpile.core
  python-eventlet python-formencode python-greenlet python-iso8601
  python-jsonschema python-keystone python-keystoneclient python-kombu
  python-ldap python-librabbitmq python-lockfile python-lxml python-migrate
  python-mock python-netaddr python-oauthlib python-openid python-oslo.config
  python-oslo.messaging python-passlib python-paste python-pastedeploy
  python-pastedeploy-tpl python-pastescript python-pbr python-pycadf
  python-repoze.lru python-routes python-scgi python-setuptools
  python-sqlalchemy python-sqlalchemy-ext python-stevedore python-tempita
  python-tz python-webob ssl-cert
Suggested packages:
  javascript-common ntp-doc python-amqp-doc python-egenix-mxdatetime
  python-greenlet-doc python-greenlet-dev python-greenlet-dbg python-memcache
  python-boto python-beanstalkc python-django python-kombu-doc python-pika
  python-pymongo python-ldap-doc python-pyasn1 python-lxml-dbg python-mock-doc
  ipython python-netaddr-docs python-pastewebkit libjs-mochikit
  libapache2-mod-wsgi libapache2-mod-python libapache2-mod-scgi python-pgsql
  python-flup python-cherrypy python-sqlalchemy-doc python-psycogp2
  python-kinterbasdb python-pymssql python-webob-doc openssl-blacklist

```

keystone

```

vagrant@controller:~$ mysql -uroot -popenstack;
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 33
Server version: 5.5.64-MariaDB-lubuntu0.14.04.1 (Ubuntu)

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create database keystone;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> grant all privileges on keystone.* to 'keystone'@'localhost' identified by 'openstack';
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> grant all privileges on keystone.* to 'keystone'@'%' identified by 'openstack';
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]>

```

后台数据库存储和创建用户

```

admin_token=ADMIN
log_dir =/var/log/keystone
use_syslog=True
syslog_log_facility=LOG_LOCAL0

[database]
connection=mysql://keystone:openstack@172.16.0.200/keystone

[extra_headers]
Distribution=Ubuntu

#
# Options defined in keystone
#

```

## 配置 OpenStack

```

vagrant@controller:~$ sudo vim /etc/keystone/keystone.conf
vagrant@controller:~$ vagrant@controller:~$ sudo restart keystone
keystone start/running, process 4925
vagrant@controller:~$ sudo restart keystone
keystone start/running, process 4931
vagrant@controller:~$ sudo keystone-manage db_sync
vagrant@controller:~$

```

## 向数据库填充必须的数据表

```

vagrant@controller:~$ keystone help
usage: keystone [--version] [--timeout <seconds>]
               [--os-username <auth-user-name>]
               [--os-password <auth-password>]
               [--os-tenant-name <auth-tenant-name>]
               [--os-tenant-id <tenant-id>] [--os-auth-url <auth-url>]
               [--os-region-name <region-name>]
               [--os-identity-api-version <identity-api-version>]
               [--os-token <service-token>]
               [--os-endpoint <service-endpoint>]
               [--os-cacert <ca-certificate>] [--insecure]
               [--os-cert <certificate>] [--os-key <key>] [--os-cache]
               [--force-new-token] [--stale-duration <seconds>]
               <subcommand> ...

Pending deprecation: Command-line interface to the OpenStack Identity API.
This CLI is pending deprecation in favor of python-openstackclient. For a
Python library, continue using python-keystoneclient.

```

## 配置测试