**OpenStack 搭建文档**

说明：此文档为标准安装文档，仅作参考，在部署中需要根据实际情况进行调整。

1. 搭建环境

1.1 硬件

服务器：4台，本文档采用最小化安装，至少4台物理机，每台至少三个网卡，计算节点要支持虚拟化。

存储：JBOD（磁盘柜）若干台

网络设备：交换机（普通网络交换机，千兆以上）1台，SAS交换机1台（可选），hba卡等

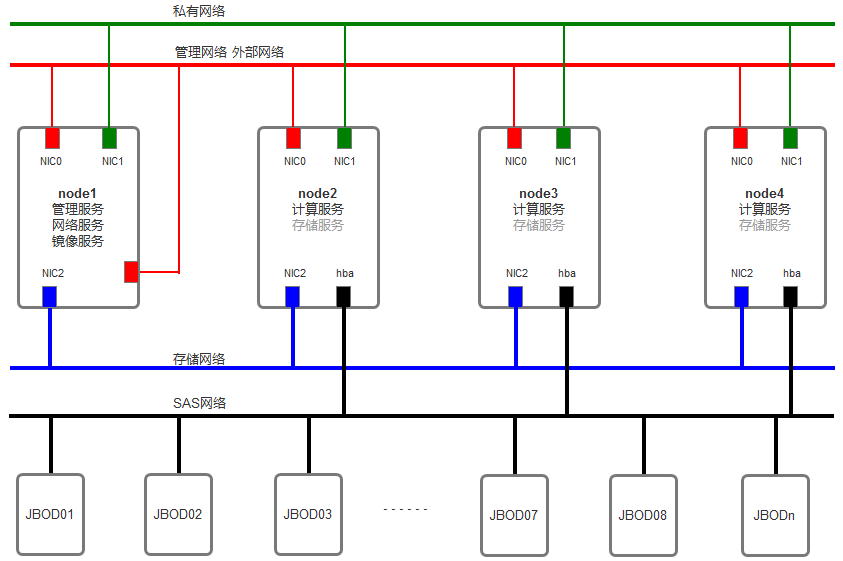
1.2 软件

系统：CentOS 7 最小化安装

基础组件：mariadb,rabbitmq

OpenStack版本：Juno版

1.3 云平台架构



1.4 节点的功能与角色

管理节点：管理云平台，主要安装管理类服务，如keystone,glance,nuetron,dashboard,nova-api等服务，以及一些基础组件，如mariadb,rabbitmq等。

计算节点：安装 nova-compute组件，提供计算虚拟化服务，及所需的资源，如内存，CPU等。

网络节点：安装 Neutron组件，提供网络虚拟化服务，通常与管理节点安装在一起。

存储节点：安装cinder-volume,ceph,nfs,zfs等组件，提供存储服务，可以安装在管理节点或计算节点上，一般由JBOD（磁盘柜）提供磁盘。

1.5 节点网络规划

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **云平台网络与服务器网卡对应表** | | | | | | |
| **交换机端口** | **节点** | **安装的软件及服务** | **网卡** | **IP** | **网络规划** | **其他** |
|  | controller (node1) | MariaDB,RabbitMQ,ntp Keystone Glance Neutron  Dashboard nova-api,cinder-api等 | NIC0 | 10.0.33.11/24 | 管理网络 | 千兆 |
|  | NIC1 | 192.168.33.11/24 | 私有网络 | 千兆以上 |
|  | **NIC2** | **172.16.33.11/24** | **存储网络** | **万兆** |
|  | NIC3 | 10.0.38.0/24 | 外部网络 | 千兆 |
|  | IPMI | 10.0.99.11/24 |  |  |
|  | compute1 (node2) | nova-compute cinder-volume ceph | NIC0 | 10.0.33.31/24 | 管理网络 | 千兆 |
|  | NIC1 | 192.168.33.31/24 | 私有网络 | 千兆以上 |
|  | **NIC2** | **172.16.33.31/24** | **存储网络** | **万兆** |
|  | NIC3 |  |  |  |
|  | IPMI | 10.0.99.31/24 |  |  |
|  | compute2 (node3) | nova-compute cinder-volume ceph | NIC0 | 10.0.33.32/24 | 管理网络 | 千兆 |
|  | NIC1 | 192.168.33.32/24 | 私有网络 | 千兆以上 |
|  | **NIC2** | **172.16.33.32/24** | **存储网络** | **万兆** |
|  | NIC3 |  |  |  |
|  | IPMI | 10.0.99.32/24 |  |  |
|  | compute3 (node4) | nova-compute cinder-volume ceph | NIC0 | 10.0.33.33/24 | 管理网络 | 千兆 |
|  | NIC1 | 192.168.33.33/24 | 私有网络 | 千兆以上 |
|  | **NIC2** | **172.16.33.33/24** | **存储网络** | **万兆** |
|  | NIC3 |  |  |  |
|  | IPMI | 10.0.99.33/24 |  |  |

2. 系统初始化

**2.1 准备 Controller Node**

2.1.1 网络，主机名等相关参数配置

cat > /etc/sysconfig/network-scripts/ifcfg-eth0 <<eof

TYPE=Ethernet

BOOTPROTO=static

NAME=eth0

DEVICE=eth0

ONBOOT=yes

IPADDR=10.0.33.11

NETMASK=255.255.255.0

GATEWAY=10.0.0.1

DEFROUTE=yes

NM\_CONTROLLED=no

eof

cat > /etc/sysconfig/network-scripts/ifcfg-eth1 <<eof

TYPE=Ethernet

BOOTPROTO=static

NAME=eth1

DEVICE=eth1

ONBOOT=yes

IPADDR=192.168.33.11

NETMASK=255.255.255.0

DEFROUTE=no

eof

cat > /etc/sysconfig/network-scripts/ifcfg-eth2 <<eof

TYPE=Ethernet

BOOTPROTO=static

NAME=eth2

DEVICE=eth2

ONBOOT=yes

IPADDR=172.16.33.11

NETMASK=255.255.255.0

DEFROUTE=no

eof

cat > /etc/sysconfig/network-scripts/ifcfg-eth3 <<eof

TYPE=Ethernet

BOOTPROTO=none

NAME=eth3

DEVICE=eth3

ONBOOT=yes

eof

echo 'nameserver 10.0.0.1' > /etc/resolv.conf

echo 'nameserver 1.2.4.8' >> /etc/resolv.conf

echo 'nameserver 114.114.114.114' >> /etc/resolv.conf

systemctl disable NetworkManager

systemctl stop NetworkManager

systemctl disable firewalld

systemctl stop firewalld

systemctl disable postfix

systemctl stop postfix

sed -i 's/SELINUX=enforcing/SELINUX=disabled/' /etc/selinux/config

setenforce 0

hostnamectl --static set-hostname controller

cat > /etc/hosts <<eof

# compute3

10.0.33.33 compute3

# compute2

10.0.33.32 compute2

# compute1

10.0.33.31 compute1

# controller

10.0.33.11 controller

eof

yum update -y

init 6

到这里，Controller Node 的初始化完成。

**2.2 准备 Compute Node**

2.2.1 网络，主机名等相关参数配置

cat > /etc/sysconfig/network-scripts/ifcfg-eth0 <<eof

TYPE=Ethernet

BOOTPROTO=static

NAME=eth0

DEVICE=eth0

ONBOOT=yes

IPADDR=10.0.33.31

NETMASK=255.255.255.0

GATEWAY=10.0.0.1

DEFROUTE=yes

NM\_CONTROLLED=no

eof

cat > /etc/sysconfig/network-scripts/ifcfg-eth1 <<eof

TYPE=Ethernet

BOOTPROTO=static

NAME=eth1

DEVICE=eth1

ONBOOT=yes

IPADDR=192.168.33.31

NETMASK=255.255.255.0

DEFROUTE=no

eof

cat > /etc/sysconfig/network-scripts/ifcfg-eth2 <<eof

TYPE=Ethernet

BOOTPROTO=static

NAME=eth2

DEVICE=eth2

ONBOOT=yes

IPADDR=172.16.33.31

NETMASK=255.255.255.0

DEFROUTE=no

eof

cat > /etc/sysconfig/network-scripts/ifcfg-eth3 <<eof

TYPE=Ethernet

BOOTPROTO=none

NAME=eth3

DEVICE=eth3

ONBOOT=no

eof

echo 'nameserver 10.0.0.1' > /etc/resolv.conf

echo 'nameserver 1.2.4.8' >> /etc/resolv.conf

echo 'nameserver 114.114.114.114' >> /etc/resolv.conf

systemctl disable NetworkManager

systemctl stop NetworkManager

systemctl disable firewalld

systemctl stop firewalld

systemctl disable postfix

systemctl stop postfix

sed -i 's/SELINUX=enforcing/SELINUX=disabled/' /etc/selinux/config

setenforce 0

hostnamectl --static set-hostname compute1

cat > /etc/hosts <<eof

# compute3

10.0.33.33 compute3

# compute2

10.0.33.32 compute2

# compute1

10.0.33.31 compute1

# controller

10.0.33.11 controller

eof

yum update -y

init 6

到这里，Compute Node 的初始化也完成。如果有compute2，compute3等节点，执行同样操作，完成初始化配置。

2.3 验证网络

在 Controller Node 上：

ping -c 4 openstack.org

ping -c 4 controller

ping -c 4 compute1

ping -c 4 compute2

在 Compute Node 上：

ping -c 4 openstack.org

ping -c 4 controller

ping -c 4 compute1

ping -c 4 compute2

到这里，系统初始化完成。

3. 通过Packstack自动化部署

3.1 安装RDO Yum源

yum install -y http://rdo.fedorapeople.org/openstack-juno/rdo-release-juno.rpm

3.2 安装Packstack工具

yum install -y openstack-packstack

3.3 上传自动化配置文件

内容如下：

[root@controller ~]# grep -vE "^#|^$" Packstack\_Juno\_3Node\_TJ\_33\_20160127-0305.txt

[general]

CONFIG\_SSH\_KEY=/root/.ssh/id\_rsa.pub

CONFIG\_DEFAULT\_PASSWORD=DEFAULT\_PASSWORD

CONFIG\_MARIADB\_INSTALL=y

CONFIG\_GLANCE\_INSTALL=y

CONFIG\_CINDER\_INSTALL=y

CONFIG\_NOVA\_INSTALL=y

CONFIG\_NEUTRON\_INSTALL=y

CONFIG\_HORIZON\_INSTALL=y

CONFIG\_SWIFT\_INSTALL=n

CONFIG\_CEILOMETER\_INSTALL=y

CONFIG\_HEAT\_INSTALL=y

CONFIG\_SAHARA\_INSTALL=n

CONFIG\_TROVE\_INSTALL=n

CONFIG\_IRONIC\_INSTALL=n

CONFIG\_CLIENT\_INSTALL=y

CONFIG\_NTP\_SERVERS=

CONFIG\_NAGIOS\_INSTALL=y

EXCLUDE\_SERVERS=

CONFIG\_DEBUG\_MODE=n

CONFIG\_CONTROLLER\_HOST=10.0.33.11 ## 指定管理节点

CONFIG\_COMPUTE\_HOSTS=10.0.33.11,10.0.33.31,10.0.33.32 ## 指定计算节点

CONFIG\_NETWORK\_HOSTS=10.0.33.11 ## 指定网络节点

CONFIG\_VMWARE\_BACKEND=n

CONFIG\_UNSUPPORTED=n

CONFIG\_VCENTER\_HOST=

CONFIG\_VCENTER\_USER=

CONFIG\_VCENTER\_PASSWORD=

CONFIG\_VCENTER\_CLUSTER\_NAME=

CONFIG\_STORAGE\_HOST=10.0.33.11

CONFIG\_SAHARA\_HOST=10.0.33.11

CONFIG\_USE\_EPEL=y

CONFIG\_REPO=

CONFIG\_RH\_USER=

CONFIG\_SATELLITE\_URL=

CONFIG\_RH\_PW=

CONFIG\_RH\_OPTIONAL=y

CONFIG\_RH\_PROXY=

CONFIG\_RH\_PROXY\_PORT=

CONFIG\_RH\_PROXY\_USER=

CONFIG\_RH\_PROXY\_PW=

CONFIG\_SATELLITE\_USER=

CONFIG\_SATELLITE\_PW=

CONFIG\_SATELLITE\_AKEY=

CONFIG\_SATELLITE\_CACERT=

CONFIG\_SATELLITE\_PROFILE=

CONFIG\_SATELLITE\_FLAGS=

CONFIG\_SATELLITE\_PROXY=

CONFIG\_SATELLITE\_PROXY\_USER=

CONFIG\_SATELLITE\_PROXY\_PW=

CONFIG\_AMQP\_BACKEND=rabbitmq

CONFIG\_AMQP\_HOST=10.0.33.11

CONFIG\_AMQP\_ENABLE\_SSL=n

CONFIG\_AMQP\_ENABLE\_AUTH=n

CONFIG\_AMQP\_NSS\_CERTDB\_PW=PW\_PLACEHOLDER

CONFIG\_AMQP\_SSL\_PORT=5671

CONFIG\_AMQP\_SSL\_CACERT\_FILE=/etc/pki/tls/certs/amqp\_selfcert.pem

CONFIG\_AMQP\_SSL\_CERT\_FILE=/etc/pki/tls/certs/amqp\_selfcert.pem

CONFIG\_AMQP\_SSL\_KEY\_FILE=/etc/pki/tls/private/amqp\_selfkey.pem

CONFIG\_AMQP\_SSL\_SELF\_SIGNED=y

CONFIG\_AMQP\_AUTH\_USER=amqp\_user

CONFIG\_AMQP\_AUTH\_PASSWORD=PW\_PLACEHOLDER

CONFIG\_MARIADB\_HOST=10.0.33.11

CONFIG\_MARIADB\_USER=root

CONFIG\_MARIADB\_PW=MYSQL\_ROOT\_PASS\_SUR

CONFIG\_KEYSTONE\_DB\_PW=KEYSTONE\_DBPASS\_SUR

CONFIG\_KEYSTONE\_REGION=RegionOne

CONFIG\_KEYSTONE\_ADMIN\_TOKEN=ADMIN\_TOKEN\_SUR

CONFIG\_KEYSTONE\_ADMIN\_PW=ADMIN\_PASS\_SUR

CONFIG\_KEYSTONE\_DEMO\_PW=DEMO\_PASS\_SUR

CONFIG\_KEYSTONE\_API\_VERSION=v2.0

CONFIG\_KEYSTONE\_TOKEN\_FORMAT=UUID

CONFIG\_KEYSTONE\_SERVICE\_NAME=httpd

CONFIG\_KEYSTONE\_IDENTITY\_BACKEND=sql

CONFIG\_KEYSTONE\_LDAP\_URL=ldap://10.0.33.11

CONFIG\_KEYSTONE\_LDAP\_USER\_DN=

CONFIG\_KEYSTONE\_LDAP\_USER\_PASSWORD=

CONFIG\_KEYSTONE\_LDAP\_SUFFIX=

CONFIG\_KEYSTONE\_LDAP\_QUERY\_SCOPE=one

CONFIG\_KEYSTONE\_LDAP\_PAGE\_SIZE=-1

CONFIG\_KEYSTONE\_LDAP\_USER\_SUBTREE=

CONFIG\_KEYSTONE\_LDAP\_USER\_FILTER=

CONFIG\_KEYSTONE\_LDAP\_USER\_OBJECTCLASS=

CONFIG\_KEYSTONE\_LDAP\_USER\_ID\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_USER\_NAME\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_USER\_MAIL\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_USER\_ENABLED\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_USER\_ENABLED\_MASK=-1

CONFIG\_KEYSTONE\_LDAP\_USER\_ENABLED\_DEFAULT=TRUE

CONFIG\_KEYSTONE\_LDAP\_USER\_ENABLED\_INVERT=n

CONFIG\_KEYSTONE\_LDAP\_USER\_ATTRIBUTE\_IGNORE=

CONFIG\_KEYSTONE\_LDAP\_USER\_DEFAULT\_PROJECT\_ID\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_USER\_ALLOW\_CREATE=n

CONFIG\_KEYSTONE\_LDAP\_USER\_ALLOW\_UPDATE=n

CONFIG\_KEYSTONE\_LDAP\_USER\_ALLOW\_DELETE=n

CONFIG\_KEYSTONE\_LDAP\_USER\_PASS\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_USER\_ENABLED\_EMULATION\_DN=

CONFIG\_KEYSTONE\_LDAP\_USER\_ADDITIONAL\_ATTRIBUTE\_MAPPING=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_SUBTREE=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_FILTER=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_OBJECTCLASS=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_ID\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_NAME\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_MEMBER\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_DESC\_ATTRIBUTE=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_ATTRIBUTE\_IGNORE=

CONFIG\_KEYSTONE\_LDAP\_GROUP\_ALLOW\_CREATE=n

CONFIG\_KEYSTONE\_LDAP\_GROUP\_ALLOW\_UPDATE=n

CONFIG\_KEYSTONE\_LDAP\_GROUP\_ALLOW\_DELETE=n

CONFIG\_KEYSTONE\_LDAP\_GROUP\_ADDITIONAL\_ATTRIBUTE\_MAPPING=

CONFIG\_KEYSTONE\_LDAP\_USE\_TLS=n

CONFIG\_KEYSTONE\_LDAP\_TLS\_CACERTDIR=

CONFIG\_KEYSTONE\_LDAP\_TLS\_CACERTFILE=

CONFIG\_KEYSTONE\_LDAP\_TLS\_REQ\_CERT=demand

CONFIG\_GLANCE\_DB\_PW=GLANCE\_DBPASS\_SUR

CONFIG\_GLANCE\_KS\_PW=GLANCE\_PASS\_SUR

CONFIG\_GLANCE\_BACKEND=file

CONFIG\_CINDER\_DB\_PW=CINDER\_DBPASS\_SUR

CONFIG\_CINDER\_KS\_PW=CINDER\_PASS\_SUR

CONFIG\_CINDER\_BACKEND=lvm

CONFIG\_CINDER\_VOLUMES\_CREATE=y

CONFIG\_CINDER\_VOLUMES\_SIZE=20G

CONFIG\_CINDER\_GLUSTER\_MOUNTS=

CONFIG\_CINDER\_NFS\_MOUNTS=

CONFIG\_CINDER\_NETAPP\_LOGIN=

CONFIG\_CINDER\_NETAPP\_PASSWORD=

CONFIG\_CINDER\_NETAPP\_HOSTNAME=

CONFIG\_CINDER\_NETAPP\_SERVER\_PORT=80

CONFIG\_CINDER\_NETAPP\_STORAGE\_FAMILY=ontap\_cluster

CONFIG\_CINDER\_NETAPP\_TRANSPORT\_TYPE=http

CONFIG\_CINDER\_NETAPP\_STORAGE\_PROTOCOL=nfs

CONFIG\_CINDER\_NETAPP\_SIZE\_MULTIPLIER=1.0

CONFIG\_CINDER\_NETAPP\_EXPIRY\_THRES\_MINUTES=720

CONFIG\_CINDER\_NETAPP\_THRES\_AVL\_SIZE\_PERC\_START=20

CONFIG\_CINDER\_NETAPP\_THRES\_AVL\_SIZE\_PERC\_STOP=60

CONFIG\_CINDER\_NETAPP\_NFS\_SHARES=

CONFIG\_CINDER\_NETAPP\_NFS\_SHARES\_CONFIG=/etc/cinder/shares.conf

CONFIG\_CINDER\_NETAPP\_VOLUME\_LIST=

CONFIG\_CINDER\_NETAPP\_VFILER=

CONFIG\_CINDER\_NETAPP\_VSERVER=

CONFIG\_CINDER\_NETAPP\_CONTROLLER\_IPS=

CONFIG\_CINDER\_NETAPP\_SA\_PASSWORD=

CONFIG\_CINDER\_NETAPP\_WEBSERVICE\_PATH=/devmgr/v2

CONFIG\_CINDER\_NETAPP\_STORAGE\_POOLS=

CONFIG\_IRONIC\_DB\_PW=PW\_PLACEHOLDER

CONFIG\_IRONIC\_KS\_PW=PW\_PLACEHOLDER

CONFIG\_NOVA\_DB\_PW=NOVA\_DBPASS\_SUR

CONFIG\_NOVA\_KS\_PW=NOVA\_PASS\_SUR

CONFIG\_NOVA\_SCHED\_CPU\_ALLOC\_RATIO=16.0

CONFIG\_NOVA\_SCHED\_RAM\_ALLOC\_RATIO=1.5

CONFIG\_NOVA\_COMPUTE\_MIGRATE\_PROTOCOL=tcp

CONFIG\_NOVA\_COMPUTE\_MANAGER=nova.compute.manager.ComputeManager

CONFIG\_NOVA\_COMPUTE\_PRIVIF=eth1

CONFIG\_NOVA\_NETWORK\_PUBIF=eth2

CONFIG\_NOVA\_NETWORK\_PRIVIF=eth1

CONFIG\_NOVA\_NETWORK\_FIXEDRANGE=10.1.1.0/24 ## 云主机内部网络

CONFIG\_NOVA\_NETWORK\_FLOATRANGE=10.0.38.0/16 ## 云主机的浮动网络，及外部网络

CONFIG\_NOVA\_NETWORK\_AUTOASSIGNFLOATINGIP=n

CONFIG\_NOVA\_NETWORK\_VLAN\_START=100

CONFIG\_NOVA\_NETWORK\_NUMBER=1

CONFIG\_NOVA\_NETWORK\_SIZE=255

CONFIG\_NEUTRON\_KS\_PW=NEUTRON\_PASS\_SUR

CONFIG\_NEUTRON\_DB\_PW=NEUTRON\_DBPASS\_SUR

CONFIG\_NEUTRON\_L3\_EXT\_BRIDGE=br-ex

CONFIG\_NEUTRON\_METADATA\_PW=NEUTRON\_METADATA\_PASS\_SUR

CONFIG\_LBAAS\_INSTALL=n

CONFIG\_NEUTRON\_METERING\_AGENT\_INSTALL=y

CONFIG\_NEUTRON\_FWAAS=n

CONFIG\_NEUTRON\_ML2\_TYPE\_DRIVERS=vxlan,gre,flat

CONFIG\_NEUTRON\_ML2\_TENANT\_NETWORK\_TYPES=vxlan,gre

CONFIG\_NEUTRON\_ML2\_MECHANISM\_DRIVERS=openvswitch,linuxbridge,l2population

CONFIG\_NEUTRON\_ML2\_FLAT\_NETWORKS=\*

CONFIG\_NEUTRON\_ML2\_VLAN\_RANGES=

CONFIG\_NEUTRON\_ML2\_TUNNEL\_ID\_RANGES=1001:2000

CONFIG\_NEUTRON\_ML2\_VXLAN\_GROUP=

CONFIG\_NEUTRON\_ML2\_VNI\_RANGES=10:100

CONFIG\_NEUTRON\_L2\_AGENT=openvswitch

CONFIG\_NEUTRON\_LB\_INTERFACE\_MAPPINGS=physnet1:eth1

CONFIG\_NEUTRON\_OVS\_BRIDGE\_MAPPINGS=

CONFIG\_NEUTRON\_OVS\_BRIDGE\_IFACES=br-ex:eth3

CONFIG\_NEUTRON\_OVS\_TUNNEL\_IF=eth1

CONFIG\_NEUTRON\_OVS\_VXLAN\_UDP\_PORT=4789

CONFIG\_HORIZON\_SSL=n

CONFIG\_SSL\_CERT=

CONFIG\_SSL\_KEY=

CONFIG\_SSL\_CACHAIN=

CONFIG\_SWIFT\_KS\_PW=b182a9b3eec44c53

CONFIG\_SWIFT\_STORAGES=

CONFIG\_SWIFT\_STORAGE\_ZONES=1

CONFIG\_SWIFT\_STORAGE\_REPLICAS=1

CONFIG\_SWIFT\_STORAGE\_FSTYPE=ext4

CONFIG\_SWIFT\_HASH=39d80a2e908c4f13

CONFIG\_SWIFT\_STORAGE\_SIZE=2G

CONFIG\_HEAT\_DB\_PW=HEAT\_DBPASS\_SUR

CONFIG\_HEAT\_AUTH\_ENC\_KEY=024a2107ed094e64

CONFIG\_HEAT\_KS\_PW=HEAT\_PASS\_SUR

CONFIG\_HEAT\_CLOUDWATCH\_INSTALL=y

CONFIG\_HEAT\_CFN\_INSTALL=y

CONFIG\_HEAT\_DOMAIN=heat

CONFIG\_HEAT\_DOMAIN\_ADMIN=heat\_admin

CONFIG\_HEAT\_DOMAIN\_PASSWORD=HEAT\_PASS\_SUR

CONFIG\_PROVISION\_DEMO=n

CONFIG\_PROVISION\_TEMPEST=n

CONFIG\_PROVISION\_DEMO\_FLOATRANGE=

CONFIG\_PROVISION\_CIRROS\_URL=http://115.182.99.130/o/os/cirros-0.3.2-x86\_64-disk.img

CONFIG\_PROVISION\_TEMPEST\_USER=

CONFIG\_PROVISION\_TEMPEST\_USER\_PW=PW\_PLACEHOLDER

CONFIG\_PROVISION\_TEMPEST\_FLOATRANGE=10.0.39.0/16

CONFIG\_PROVISION\_TEMPEST\_REPO\_URI=https://github.com/openstack/tempest.git

CONFIG\_PROVISION\_TEMPEST\_REPO\_REVISION=master

CONFIG\_PROVISION\_ALL\_IN\_ONE\_OVS\_BRIDGE=y

CONFIG\_CEILOMETER\_SECRET=CEILOMETER\_TOKEN\_SUR

CONFIG\_CEILOMETER\_KS\_PW=CEILOMETER\_PASS\_SUR

CONFIG\_CEILOMETER\_COORDINATION\_BACKEND=redis

CONFIG\_MONGODB\_HOST=10.0.33.11

CONFIG\_REDIS\_MASTER\_HOST=10.0.33.11

CONFIG\_REDIS\_PORT=6379

CONFIG\_REDIS\_HA=n

CONFIG\_REDIS\_SLAVE\_HOSTS=10.0.33.11

CONFIG\_REDIS\_SENTINEL\_HOSTS=10.0.33.11

CONFIG\_REDIS\_SENTINEL\_CONTACT\_HOST=10.0.33.11

CONFIG\_REDIS\_SENTINEL\_PORT=26379

CONFIG\_REDIS\_SENTINEL\_QUORUM=2

CONFIG\_REDIS\_MASTER\_NAME=mymaster

CONFIG\_SAHARA\_DB\_PW=PW\_PLACEHOLDER

CONFIG\_SAHARA\_KS\_PW=PW\_PLACEHOLDER

CONFIG\_TROVE\_DB\_PW=PW\_PLACEHOLDER

CONFIG\_TROVE\_KS\_PW=PW\_PLACEHOLDER

CONFIG\_TROVE\_NOVA\_USER=admin

CONFIG\_TROVE\_NOVA\_TENANT=services

CONFIG\_TROVE\_NOVA\_PW=PW\_PLACEHOLDER

CONFIG\_NAGIOS\_PW=NAGIOS\_PASS\_SUR

在实施中，根据实际情况修改配置文件。

3.4 通过packstack自动化部署

[root@controller ~]# packstack --answer-file=Packstack\_Juno\_3Node\_TJ\_33\_enxxxx\_20160129-1953.txt

Welcome to the Packstack setup utility

The installation log file is available at: /var/tmp/packstack/20160131-115433-Y4c6UG/openstack-setup.log

Installing:

Clean Up [ DONE ]

Setting up ssh keys [ DONE ]

Discovering hosts' details [ DONE ]

Adding pre install manifest entries [ DONE ]

Preparing servers [ DONE ]

Adding AMQP manifest entries [ DONE ]

Adding MariaDB manifest entries [ DONE ]

Fixing Keystone LDAP config parameters to be undef if empty[ DONE ]

Adding Keystone manifest entries [ DONE ]

Adding Glance Keystone manifest entries [ DONE ]

Adding Glance manifest entries [ DONE ]

Adding Cinder Keystone manifest entries [ DONE ]

Checking if the Cinder server has a cinder-volumes vg[ DONE ]

Adding Cinder manifest entries [ DONE ]

Adding Nova API manifest entries [ DONE ]

Adding Nova Keystone manifest entries [ DONE ]

Adding Nova Cert manifest entries [ DONE ]

Adding Nova Conductor manifest entries [ DONE ]

Creating ssh keys for Nova migration [ DONE ]

Gathering ssh host keys for Nova migration [ DONE ]

Adding Nova Compute manifest entries [ DONE ]

Adding Nova Scheduler manifest entries [ DONE ]

Adding Nova VNC Proxy manifest entries [ DONE ]

Adding OpenStack Network-related Nova manifest entries[ DONE ]

Adding Nova Common manifest entries [ DONE ]

Adding Neutron API manifest entries [ DONE ]

Adding Neutron Keystone manifest entries [ DONE ]

Adding Neutron L3 manifest entries [ DONE ]

Adding Neutron L2 Agent manifest entries [ DONE ]

Adding Neutron DHCP Agent manifest entries [ DONE ]

Adding Neutron LBaaS Agent manifest entries [ DONE ]

Adding Neutron Metering Agent manifest entries [ DONE ]

Adding Neutron Metadata Agent manifest entries [ DONE ]

Checking if NetworkManager is enabled and running [ DONE ]

Adding OpenStack Client manifest entries [ DONE ]

Adding Horizon manifest entries [ DONE ]

Adding Heat manifest entries [ DONE ]

Adding Heat CloudWatch API manifest entries [ DONE ]

Adding Heat CloudFormation API manifest entries [ DONE ]

Adding MongoDB manifest entries [ DONE ]

Adding Redis manifest entries [ DONE ]

Adding Ceilometer manifest entries [ DONE ]

Adding Ceilometer Keystone manifest entries [ DONE ]

Adding Nagios server manifest entries [ DONE ]

Adding Nagios host manifest entries [ DONE ]

Adding post install manifest entries [ DONE ]

Installing Dependencies [ DONE ]

Copying Puppet modules and manifests [ DONE ]

Applying 10.0.33.31\_prescript.pp

Applying 10.0.33.32\_prescript.pp

Applying 10.0.33.11\_prescript.pp

10.0.33.31\_prescript.pp: [ DONE ]

10.0.33.32\_prescript.pp: [ DONE ]

10.0.33.11\_prescript.pp: [ DONE ]

Applying 10.0.33.11\_amqp.pp

Applying 10.0.33.11\_mariadb.pp

10.0.33.11\_amqp.pp: [ DONE ]

10.0.33.11\_mariadb.pp: [ DONE ]

Applying 10.0.33.11\_keystone.pp

Applying 10.0.33.11\_glance.pp

Applying 10.0.33.11\_cinder.pp

10.0.33.11\_keystone.pp: [ DONE ]

10.0.33.11\_cinder.pp: [ DONE ]

10.0.33.11\_glance.pp: [ DONE ]

Applying 10.0.33.11\_api\_nova.pp

10.0.33.11\_api\_nova.pp: [ DONE ]

Applying 10.0.33.11\_nova.pp

Applying 10.0.33.31\_nova.pp

Applying 10.0.33.32\_nova.pp

10.0.33.11\_nova.pp: [ DONE ]

10.0.33.31\_nova.pp: [ DONE ]

10.0.33.32\_nova.pp: [ DONE ]

Applying 10.0.33.31\_neutron.pp

Applying 10.0.33.32\_neutron.pp

Applying 10.0.33.11\_neutron.pp

10.0.33.31\_neutron.pp: [ DONE ]

10.0.33.32\_neutron.pp: [ DONE ]

10.0.33.11\_neutron.pp: [ DONE ]

Applying 10.0.33.11\_osclient.pp

Applying 10.0.33.11\_horizon.pp

10.0.33.11\_osclient.pp: [ DONE ]

10.0.33.11\_horizon.pp: [ DONE ]

Applying 10.0.33.11\_heat.pp

Applying 10.0.33.11\_heatcw.pp

Applying 10.0.33.11\_heatcnf.pp

10.0.33.11\_heat.pp: [ DONE ]

10.0.33.11\_heatcw.pp: [ DONE ]

10.0.33.11\_heatcnf.pp: [ DONE ]

Applying 10.0.33.11\_mongodb.pp

Applying 10.0.33.11\_redis.pp

10.0.33.11\_mongodb.pp: [ DONE ]

10.0.33.11\_redis.pp: [ DONE ]

Applying 10.0.33.11\_ceilometer.pp

10.0.33.11\_ceilometer.pp: [ DONE ]

Applying 10.0.33.11\_nagios.pp

Applying 10.0.33.31\_nagios\_nrpe.pp

Applying 10.0.33.32\_nagios\_nrpe.pp

Applying 10.0.33.11\_nagios\_nrpe.pp

10.0.33.31\_nagios\_nrpe.pp: [ DONE ]

10.0.33.32\_nagios\_nrpe.pp: [ DONE ]

10.0.33.11\_nagios.pp: [ DONE ]

10.0.33.11\_nagios\_nrpe.pp: [ DONE ]

Applying 10.0.33.31\_postscript.pp

Applying 10.0.33.32\_postscript.pp

Applying 10.0.33.11\_postscript.pp

10.0.33.31\_postscript.pp: [ DONE ]

10.0.33.11\_postscript.pp: [ DONE ]

10.0.33.32\_postscript.pp: [ DONE ]

Applying Puppet manifests [ DONE ]

Finalizing [ DONE ]

\*\*\*\* Installation completed successfully \*\*\*\*\*\*

Additional information:

\* Time synchronization installation was skipped. Please note that unsynchronized time on server instances might be problem for some OpenStack components.

\* File /root/keystonerc\_admin has been created on OpenStack client host 10.0.33.11. To use the command line tools you need to source the file.

\* To access the OpenStack Dashboard browse to http://10.0.33.11/dashboard .

Please, find your login credentials stored in the keystonerc\_admin in your home directory.

\* To use Nagios, browse to http://10.0.33.11/nagios username: nagiosadmin, password: NAGIOS\_PASS\_SUR

\* The installation log file is available at: /var/tmp/packstack/20160131-115433-Y4c6UG/openstack-setup.log

\* The generated manifests are available at: /var/tmp/packstack/20160131-115433-Y4c6UG/manifests

7.2.4 创建初始网络

7.2.4.1 创建公共网络

source /etc/admin-openrc.sh

neutron net-create Pub-Net --router:external True \

--provider:physical\_network external --provider:network\_type flat

neutron subnet-create Pub-Net --name Pub-Subnet \

--allocation-pool start=10.0.38.11,end=10.0.38.111 \

--disable-dhcp --gateway 10.0.0.1 10.0.38.0/16 \

--dns-nameserver 10.0.0.1 \

--dns-nameserver 8.8.8.8

7.2.4.2 创建租户网络

source /etc/demo-openrc.sh

neutron net-create Pri-Net

neutron subnet-create Pri-Net --name Pri-Subnet \

--gateway 10.1.1.1 10.1.1.0/24 \

--dns-nameserver 8.8.4.4 \

--dns-nameserver 1.2.4.8 \

--dns-nameserver 114.114.114.114

neutron router-create Pri-Router

neutron router-interface-add Pri-Router Pri-Subnet

neutron router-gateway-set Pri-Router Pub-Net

7.2.4.3 验证

ping -c 4 10.0.38.11

8. 添加dashboard

8.1 安装 dashboard

8.1.1 在控制节点上安装 dashboard

yum install -y openstack-dashboard httpd mod\_wsgi memcached python-memcached

8.1.2 修改 vim /etc/openstack-dashboard/local\_settings 中的 CACHES['default']['LOCATION'] 值为如下：

CACHES = {

'default': {

'BACKEND' : 'django.core.cache.backends.memcached.MemcachedCache',

'LOCATION' : '127.0.0.1:11211'

}

}

修改时区 TIME\_ZONE = "UTC"

8.1.3 编辑 /etc/openstack-dashboard/local\_settings 中：

ALLOWED\_HOSTS = ['\*']

sed -i "s/ALLOWED\_HOSTS = \['horizon.example.com', 'localhost'\]/ALLOWED\_HOSTS = \['\*'\]/g" \

/etc/openstack-dashboard/local\_settings

8.1.4 编辑 /etc/openstack-dashboard/local\_settings 中：

OPENSTACK\_HOST = "controller"

sed -i 's/OPENSTACK\_HOST = "127.0.0.1"/OPENSTACK\_HOST = "controller"/g' \

/etc/openstack-dashboard/local\_settings

8.1.5 打开 HTTP 权限

setsebool -P httpd\_can\_network\_connect on

chown -R apache:apache /usr/share/openstack-dashboard/static

8.1.6 启动服务，并配置随机启动

systemctl enable httpd.service memcached.service

systemctl start httpd.service memcached.service

8.1.7 访问 dashboard

http://controller/dashboard controller 替换成对应 IP，如：

http://10.0.33.11/dashboard

admin ADMIN\_PASS\_SUR