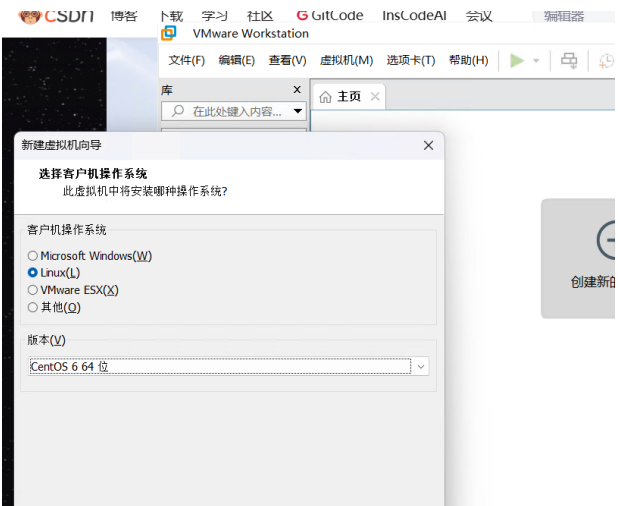


Openstack 安装与部署

李凯涛_2023327100056

完成流程

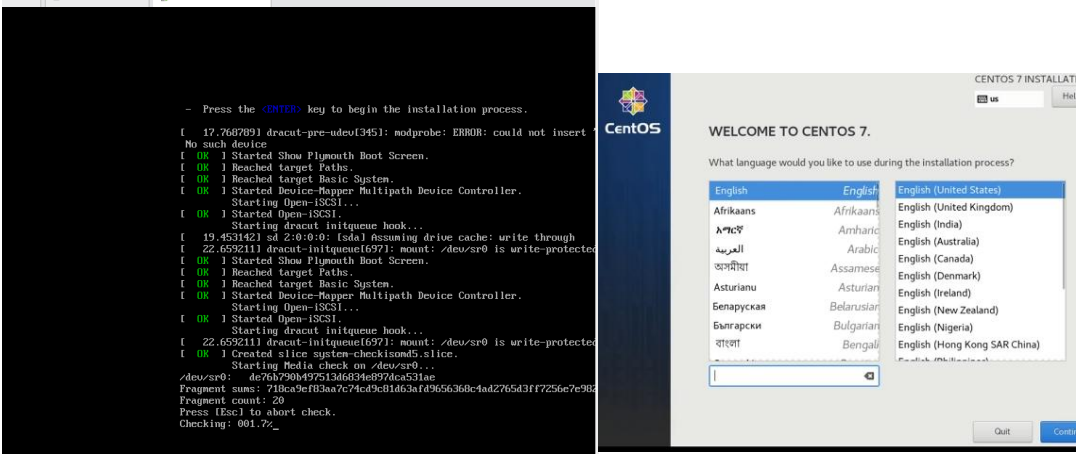
配置环境



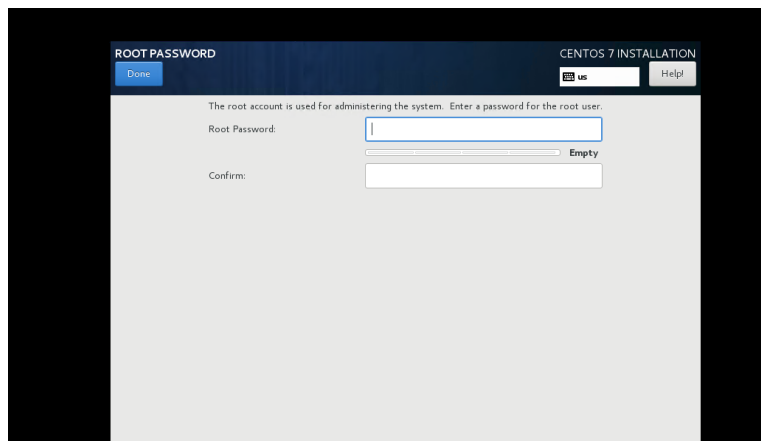
配置两张网卡进行使用



安装 ces07 镜像



设置镜像密码: 2025ces

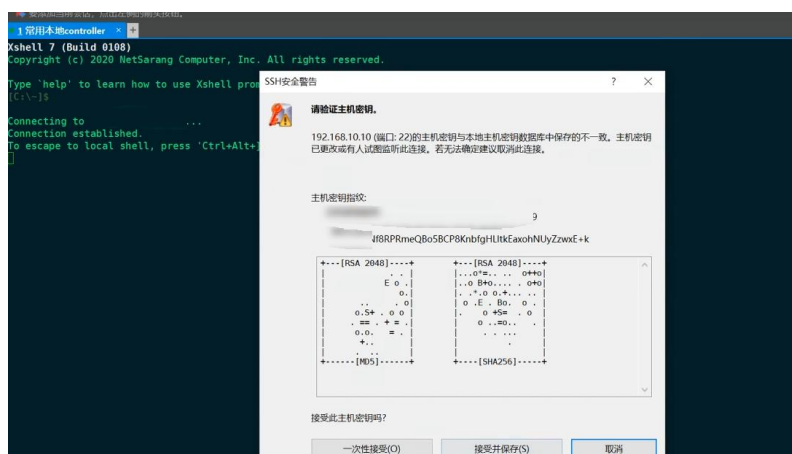


配置第 1 块网卡

```
#vi /etc/sysconfig/network-scripts/ifcfg-ens33
```

```
TYPE=Ethernet
PROXY_METHOD=none
BROWSER_ONLY=no
BOOTPROTO=static
DEFROUTE=yes
IPV4_FAILURE_FATAL=no
IPV6INIT=yes
IPV6_AUTOCONF=yes
IPV6_DEFROUTE=yes
IPV6_FAILURE_FATAL=no
IPV6_ADDR_GEN_MODE=stable-privacy
NAME=ens33
```

在 Xshell 上可以查看到我们已成功连接



按照第一次方法再配置第 2 块网卡

```
#vi /etc/sysconfig/network-scripts/ifcfg-ens34
```

```
1 常用本地controller x
TYPE=Ethernet
PROXY_METHOD=none
BROWSER_ONLY=no
BOOTPROTO=static
DEFROUTE=yes
IPV4_FAILURE_FATAL=no
IPV6INIT=yes
IPV6_AUTOCONF=yes
IPV6_DEFROUTE=yes
IPV6_FAILURE_FATAL=no
IPV6_ADDR_GEN_MODE=stable-privacy
NAME=ens33
UUID=4eddb071-d58f-464e-8d9b-7fb6d12c56a4
DEVICE=ens33
ONBOOT=yes
IPADDR=
NETMASK=255.255.255.0
```

之后关闭防火墙 两个节点都要做

systemctl stop firewalld 关闭防火墙

systemctl disable firewalld 设置防火墙开机不自启

Removed symlink /etc/systemd/system/multi-user.target.wants/firewalld.service.

Removed symlink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.

setenforce 0 强制关闭 selinux 防火墙

getenforce 查看 selinux 防火墙的状态

Permissive 修改为 disabled

vi /etc/selinux/config

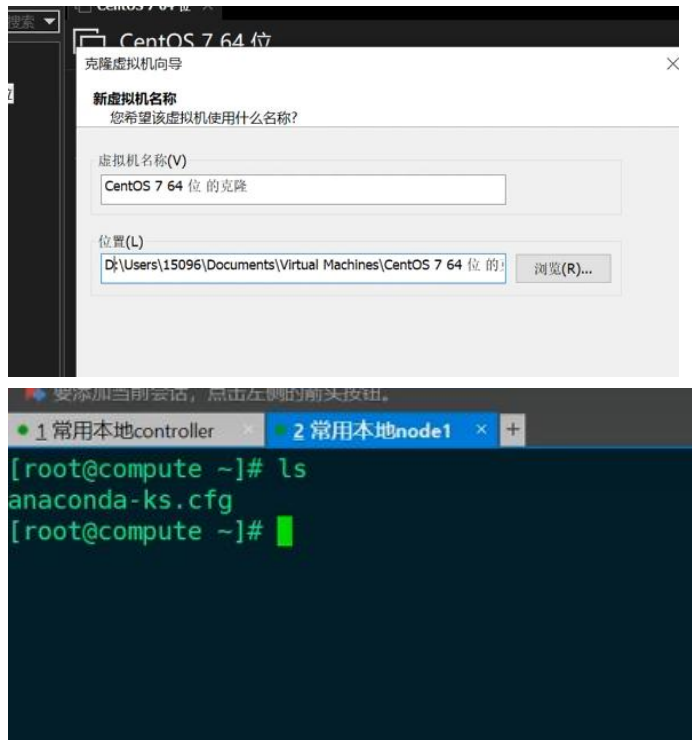
vi /etc/hosts

rm -rf /etc/yum.repos.d/

```
ost ~]# vi /etc/sysconfig/network-scripts/ifcfg-ens33
ost ~]# vi /etc/sysconfig/network-scripts/ifcfg-ens34
ost ~]# systemctl stop firewalld
ost ~]# systemctl disable firewalld
ink /etc/systemd/system/multi-user.target.wants/firewalld.service.
ink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.
ost ~]# setenforce 0
ost ~]# vi /etc/selinux/config
ost ~]# vi /etc/hosts
ost ~]# rm -rf /etc/yum.repos.d/*
ost ~]#

# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#   enforcing - SELinux security policy is enforced.
#   permissive - SELinux prints warnings instead of enforcing.
#   disabled - No SELinux policy is loaded.
SELINUX=disabled
# SELINUXTYPE= can take one of three values:
#   targeted - Targeted processes are protected.
#   minimum - Modification of targeted policy. Only selected processes are protected.
#   mls - Multi Level Security protection.
SELINUXTYPE=targeted
```

克隆一台新虚拟机，有两台新的机子



进行些样云配置

[centos]

name=centos

enabled=1

gpgcheck=0

baseurl=file:///opt/centos

[iaas]

name=iaas

enabled=1

gpgcheck=0

baseurl=file:///opt/iaas/iaas-repo

创建一个 centos 与 iaas 的文件夹

mkdir /opt/centos

mkdir /opt/iaas

准备进行 yum 源文件处理并之后跟上一步一样配置样云

```
vi /etc/yum.repos.d/Cent^C
```

```
rm -rf/etc/yum.repos.d/*
```

```
vi/etc/yum.repos.d/ftp.repo
```

```
[root@compute ~]# ls
anaconda-ks.cfg
[root@compute ~]# ls
anaconda-ks.cfg  CentOS-7-x86_64-DVD-2009.iso  chinaskills_cloud_iaas_v2.0.1.iso
[root@compute ~]# vi /etc/yum.repos.d/Cent^C
[root@compute ~]# rm -rf /etc/yum.repos.d/*
[root@compute ~]# vi /etc/yum.repos.d/ftp.repo
```

挂载镜像并考到 opt 的 centos 下

Mount CentOS-7-x86_64-DVD-2009.iso^C

```
Mount -o loop CentOS-7-x86_64-DVD-2009.iso/mnt/
```

```
root@controller ~# ls
maconda-ks.cfg CentOS-7-x86_64-DVD-2009.iso chinaskills_cloud_iaas_v2.0.1.iso
root@controller ~# mount CentOS-7-x86_64-DVD-2009.iso /mnt
root@controller ~# mount -o loop CentOS-7-x86_64-DVD-2009.iso /mnt/
mount: /dev/loop0 is write-protected, mounting read-only
root@controller ~# cp -rvf /mnt/* /opt/centos/
```

输出效果

```
/mnt/repodata' -> '/opt/centos/repodata'
/mnt/repodata/e0e82d111931e402316702696ae4178e65673dc0f9c23a2bb012d192cb2625eal-primary.sql
702696ae4178e65673dc0f9c23a2bb012d192cb2625eal-primary.sql.bz2'
/mnt/repodata/4a1c8221285db1b9d5361d4567baa883e60ee29c32d8d0a1b777d7f761664d-filelists.xml
51d4567baa883e60ee29c32d8d0a1b777d7f761664d-filelists.xml.gz'
/mnt/repodata/60aa4673bf5fa63d1a7a640ef407b8e48f5b3337720d844a29a53fec1306da-filelists.s
1a7a640ef407b8e48f5b3337720d844a29a53fec1306da-filelists.sqlite.bz2'
/mnt/repodata/9d629f21d7f9ca472fafa8c0b348c3ef1f39681aa066d41dc53b3563bcd1f53-other.sqli
afa8c0b348c3ef1f39681aa066d41dc53b3563bcd1f53-other.sqli.bz2'
/mnt/repodata/a9e2b46586aa556c3b6f81dad5b16db5a669984d66b68e873586cd7c7253301-c7-x86_64-c
3b6f81dad5b16db5a669984d66b68e873586cd7c7253301-c7-x86_64-comps.xml.gz'
/mnt/repodata/a532e7a870a201ff8b80ffe381f35662cfbde9014e85sea32cba19da7677f6aca3-primary.xml
381f35662cfbde9014e85sea32cba19da7677f6aca3-primary.xml.gz'
/mnt/repodata/b157d8b012febabf1c72d579b5155b8519a362a64bbd37c40acb22b6cc544ccf-other.xml.g
b5155b8519a362a64bbd37c40acb22b6cc544ccf-other.xml.gz'
/mnt/repodata/cac65f3cfa18f1e52302dbfcf2f0250a94c8a37acd8347ed6317cb52c8369dc-c7-x86_64-c
2302dbfcf2f0250a94c8a37acd8347ed6317cb52c8369dc-c7-x86_64-comps.xml'
/mnt/repodata/repomd.xml' -> '/opt/centos/repodata/repomd.xml'
/mnt/repodata/repomd.xml.asc' -> '/opt/centos/repodata/repomd.xml.asc'
/mnt/repodata/TRANS.TBL' -> '/opt/centos/repodata/TRANS.TBL'
/mnt/RPM-GPG-KEY-CentOS-7' -> '/opt/centos/RPM-GPG-KEY-CentOS-7'
```

之后解除挂载,并把新的镜像挂载到 mnt 下

umount /mnt/

```
mount -o loop chinaskills_cloud_iaas_v2.0.1.iso/mnt/
```

```
cp -rvf /mnt/* /opt/iaas/
```

运行效果

[illegible]

之后再解除刚才的挂载

Umount /mnt/

```
rm -rf CentOS-7-x86_64-DVD-2009.iso
```

```
rm -rf chinaskills_cloud_iaas_v2.0.1.iso
```

ls

之后 yum repolist

```

root@controller ~]# yum repolist
loaded plugins: fastestmirror
Determining fastest mirrors
Could not retrieve mirrorlist http://mirrorlist.centos.org/?release=
14: curl#6 - "Could not resolve host: mirrorlist.centos.org; Unknown
loading mirror speeds from cached hostfile
loading mirror speeds from cached hostfile
loading mirror speeds from cached hostfile
loading mirror speeds from cached hostfile
loading mirror speeds from cached hostfile
repo id
base/7/x86_64

```

完成 yum 源

```
rm -rf /etc/yum.repos.d/C*
```

YUM R^C

yum repolist

```

xtras//x86_64                               CentOS-7 - Extras                0
iaas                                          iaas                             0
updates//x86_64                             CentOS-7 - Updates              0
repolist: 0
root@controller ~# rm -rf /etc/yum.repos.d/*
root@controller ~# YUM R+C
root@controller ~# yum repolist
loaded plugins: fastestmirror
loading mirror speeds from cached hostfile
centos
iaas
1/3: centos/group_gz                        | 3.6 KB 00:00:00
2/3: iaas/primary_db                       | 2.9 KB 00:00:00
3/3: centos/primary_db                    | 153 KB 00:00:00
centos                                     | 597 KB 00:00:00
iaas                                       | 3.3 KB 00:00:00
repo id      repo name      stat
centos       centos         4,07
iaas         iaas           95
repolist: 5.024
root@controller ~#

```


下载新的安装包

yum install -y vim vsftpd iaas-xiandian

```
Package Arch Version Repository Size
installing:
vsftpd x86_64 3.0.2-28.el7 centos 172 k
Transaction Summary
Install 1 Package
Total download size: 172 k
Installed size: 353 k
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Installing : vsftpd-3.0.2-28.el7.x86_64 1/1
Verifying : vsftpd-3.0.2-28.el7.x86_64 1/1
Installed:
vsftpd.x86_64 0:3.0.2-28.el7
```

配置 vsftpd 服务

vi /etc/vsftpd/vsftpd.conf

添加 anon_root=/opt/

```
# Example config file /etc/vsftpd/vsftpd.conf
anon_root=/opt
#
# The default compiled in settings are fairly paranoid. This sample file
# loosens things up a bit, to make the ftp daemon more usable.
# Please see vsftpd.conf.5 for all compiled in defaults.
#
# READ THIS: This example file is NOT an exhaustive list of vsftpd options.
# Please read the vsftpd.conf.5 manual page to get a full idea of vsftpd's
# capabilities.
#
```

开启 vsftpd 并自启动

systemctl restart vsftpd

systemctl enable vsftpd

下载新的软件包并在两台机子都执行

Yum install openstack-iaas-y

```
root@controller ~# systemctl enable vsftpd
Created symlink from /etc/systemd/system/multi-user.target.wants/vsftpd.service to /usr/lib/systemd/system/vsftpd.service.
root@controller ~# yum install openstack-iaas -y
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
Resolving Dependencies
--> Running transaction check
--> Package openstack-iaas.noarch 0:2.0.1-1 will be installed
--> Finished Dependency Resolution
Dependencies Resolved

Package Arch Version Repository
installing:
openstack-iaas noarch 2.0.1-1 iaas
Transaction Summary
Install 1 Package
Total download size: 26 k
```

```
ssh://root@192.168.10.2022
要添加当前会话，点击左侧的箭头按钮。
1 常用本地controller 2 常用本地node1
iaas iaas
repolist: 5,024
[root@compute ~]# vi /etc/hosts
[root@compute ~]# yum install openstack-iaas -y
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
Resolving Dependencies
--> Running transaction check
--> Package openstack-iaas.noarch 0:2.0.1-1 will be installed
--> Finished Dependency Resolution
```

输入下面指令修改脚本，修改相应的 HOST_IP 与 HOST_PASS

vi /etc/openstack/openrc.sh

并在最低行把密码修改为 00000

KEYSTONE_DBPASS=

:%s/PASS=/PASS=000000/g

```
#Password for rabbit user .example:000000
RABBIT_PASS=

#-----MySQL Config-----##
#Password for MySQL root user . exmaple:000000
DB_PASS=

#-----Keystone Config-----##
#Password for Keystone admin user. exmaple:000000
DOMAIN_NAME=
ADMIN_PASS=
DEMO_PASS=

#Password for Mysql keystore user. exmaple:000000
KEYSTONE_DBPASS=
:%s/PASS=/PASS=000000/g

-----MySQL Config-----##
Password for MySQL root user . example:000000
B_PASS=000000

-----Keystone Config-----##
Password for Keystone admin user. exmaple:000000
DOMAIN_NAME=
ADMIN_PASS=000000
DEMO_PASS=000000

Password for Mysql keystore user. exmaple:000000
KEYSTONE_DBPASS=000000

-----Glance Config-----##
Password for Mysql glance user. exmaple:000000
GLANCE_DBPASS=000000

Password for Keystone glance user. exmaple:000000
GLANCE_PASS=000000

-----Placement Config-----##
Password for Mysql placement user. example:000000
```

修改完脚本之后，把 openrc.shroot 脚本文件传到 20 节点

scp /etc/openstack/openrc.shroot@192.168.10.20:/etc/openstack/

```
root@controller ~]# scp /etc/openstack/openrc.sh root@192.168.10.20:/etc/openstack/
The authenticity of host '192.168.10.20 (192.168.10.20)' can't be established.
ECDSA key fingerprint is SHA256:ecrUgap6s0LEGhofVaTGbXkFWVT7jjqn3huHRRV6AOM.
ECDSA key fingerprint is MD5:4b:e9:29:a2:7c:6d:8c:a5:a3:e1:bc:21:2b:cd:31:56.
Are you sure you want to continue connecting (yes/no)? yes
```

之后在两台机子都执行 iaas-pre-host.sh 完成初始化

```
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
Package Arch Version Repository
=====================================================================================================================================
Removing:
NetworkManager x86_64 1:1.18.8-1.el7 @anaconda
firewalld noarch 0.6.3-11.el7 @anaconda
Removing for dependencies:
NetworkManager-team x86_64 1:1.18.8-1.el7 @anaconda
NetworkManager-tui x86_64 1:1.18.8-1.el7 @anaconda
Transaction Summary
=====================================================================================================================================
Remove 2 Packages (+2 Dependent packages)

Installed size: 7.7 M
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Erasing : 1:NetworkManager-tui-1.18.8-1.el7.x86_64
  Erasing : 1:NetworkManager-team-1.18.8-1.el7.x86_64
  Erasing : firewalld-0.6.3-11.el7.noarch
  Erasing : 1:NetworkManager-1.18.8-1.el7.x86_64
  Verifying : 1:NetworkManager-team-1.18.8-1.el7.x86_64
  Verifying : 1:NetworkManager-tui-1.18.8-1.el7.x86_64
```

```
Erasing : 1:NetworkManager-1.18.8-1.el7.x86_64
Verifying : 1:NetworkManager-team-1.18.8-1.el7.x86_64
Verifying : 1:NetworkManager-tui-1.18.8-1.el7.x86_64
Verifying : firewalld-0.6.3-11.el7.noarch
Verifying : 1:NetworkManager-1.18.8-1.el7.x86_64

Removed:
NetworkManager.x86_64 1:1.18.8-1.el7 firewalld.noarch

Dependency Removed:
NetworkManager-team.x86_64 1:1.18.8-1.el7 NetworkManager-tui.

Complete!
```



```
nothing to do
Please Reboot or Reconnect the terminal
[root@compute ~]#

Connection closed.

Disconnected from remote host(常用本地node1) at 19:07:33.

Type `help' to learn how to use Xshell prompt.
```

之后需要完成初始化并安装相应数据库

在一台机子执行 iaas-install-mysql.sh

```
Installing:
rabbitmq-server          noarch          3.6.16-1.el7          iaas
Installing for dependencies:
erlang-asn1              x86_64          19.3.6.4-1.el7        iaas
erlang-compiler          x86_64          19.3.6.4-1.el7        iaas
erlang-crypto            x86_64          19.3.6.4-1.el7        iaas
erlang-eldap             x86_64          19.3.6.4-1.el7        iaas
erlang-erts              x86_64          19.3.6.4-1.el7        iaas
erlang-hipe              x86_64          19.3.6.4-1.el7        iaas
erlang-inets             x86_64          19.3.6.4-1.el7        iaas
erlang-kernel            x86_64          19.3.6.4-1.el7        iaas
erlang-mnesia            x86_64          19.3.6.4-1.el7        iaas
erlang-os_mon            x86_64          19.3.6.4-1.el7        iaas
erlang-otp_mibs          x86_64          19.3.6.4-1.el7        iaas
erlang-public_key        x86_64          19.3.6.4-1.el7        iaas
erlang-runtime_tools     x86_64          19.3.6.4-1.el7        iaas
erlang-sasl              x86_64          19.3.6.4-1.el7        iaas
erlang-sd_notify         x86_64          1.0-2.el7             iaas
erlang-snmp              x86_64          19.3.6.4-1.el7        iaas
erlang-ssl               x86_64          19.3.6.4-1.el7        iaas
erlang-stdlib            x86_64          19.3.6.4-1.el7        iaas
erlang-syntax_tools      x86_64          19.3.6.4-1.el7        iaas
erlang-tools             x86_64          19.3.6.4-1.el7        iaas
erlang-xmerl             x86_64          19.3.6.4-1.el7        iaas
```

另一条机子执行 iaas-install-keystone.sh

```
+-----+
| Field | Value |
+-----+
| expires | 2022-12-29T20:09:00+0000 |
+-----+
| id | gAAAAABjreXMHItxVpu9pzIKqlmJV0TouCDV78wM2EoHnrvixp3b4lSNyNHad-nWnc7Ww5j-iZp7Cuhp1a210tsioukCY0dWae_9 |
| project_id | ced0ab6841c6497eb7099e5dad062b8c |
+-----+
| user_id | 5dae950e5352428194382f633677c44d |
+-----+
```

再跑新的脚本 iaas-install-glance.sh

```
+-----+
| Field | Value |
+-----+
| expires | 2022-12-29T20:09:00+0000 |
+-----+
| id | gAAAAABjreXMHItxVpu9pzIKqlmJV0TouCDV78wM2EoHnrvixp3b4lSNyNHad-nWnc7Ww5j-iZp7Cuhp1a210tsioukCY0dWae_9 |
| project_id | ced0ab6841c6497eb7099e5dad062b8c |
+-----+
| user_id | 5dae950e5352428194382f633677c44d |
+-----+

[root@controller ~]# iaas-install-glance.sh
+-----+
| Field | Value |
+-----+
| domain_id | c961f24422aa4da88ab060ee6a91f51 |
| enabled | True |
| id | 5d769a2c06c449d19ed2cb8b8ccafab9 |
| name | glance |
| options | {} |
| password_expires_at | None |
+-----+
```

再之前那台机子执行 iaas-install-placement.sh 脚本

```

INFO [alembic.runtime.migration] Will assume non-transactional DDL.
Upgraded database to: train_contract01, current revision(s): train_contract01
INFO [alembic.runtime.migration] Context impl MySQLImpl.
INFO [alembic.runtime.migration] Will assume non-transactional DDL.
Database is synced successfully.
Created symlink from /etc/systemd/system/multi-user.target.wants/openstack-glance-api.service.
Created symlink from /etc/systemd/system/multi-user.target.wants/openstack-glance-registry.service.
[root@controller ~]# iaas-install-placement.sh

```

在跑完刚才脚本的基础后，需要 下载核心主件 nova

iaas-install-nova-controller.sh

```

openstack-placement-api.noarch 0:2.0.0-1.el7
python2-pip.noarch

Dependency Installed:
openstack-placement-common.noarch 0:2.0.0-1.el7
python2-os-resource-classes.noarch 0:0.5.0-1.el7
python2-placement.noarch 0:2.0.0-1.el7
python2-microversion-parser.noarch
python2-os-traits.noarch

Complete!
/usr/lib/python2.7/site-packages/pymysql/cursors.py:170: Warning: (1280, u"Name 'alembic_version'
result = self._query(query)
[root@controller ~]# iaas-install-nova-controller.sh

```

之后在这台机子跑 iaas-install-neutron-compute.sh

在另一台机子跑从节点脚本 iaas-install-nova-compute.sh

```

--> Package libnfsidmap.x86_64 0:0.25-19.el7 will be installed
--> Package libsodium.x86_64 0:1.0.18-2.el7 will be installed
--> Package libxml2-python.x86_64 0:2.9.1-6.el7.5 will be installed
--> Package python-dns.noarch 0:1.15.0-5.el7 will be installed
--> Processing Dependency: python-crypto for package: python-dns-1.15.0-5.el7.noarch
--> Package python-kazoo.noarch 0:2.2.1-1.el7 will be installed
--> Package python-kitchen.noarch 0:1.1.1-5.el7 will be installed
--> Package python-openvswitch.x86_64 1:2.12.0-1.el7 will be installed
--> Processing Dependency: libopenvswitch-2.12.so.0(libopenvswitch_0)(64bit) for package: 1:python-openvswitch-2.12.0-1.el7.x86_64
--> Processing Dependency: libopenvswitch-2.12.so.0()(64bit) for package: 1:python-openvswitch-2.12.0-1.el7.x86_64
--> Package python-pycadf-common.noarch 0:2.10.0-2.el7 will be installed
--> Package python2-matplotlib.x86_64 0:2.0.0-3.el7 will be installed
--> Processing Dependency: python2-matplotlib-tk(x86-64) = 2.0.0-3.el7 for package: python2-matplotlib-2.0.0-3.el7.x86_64
--> Processing Dependency: python-matplotlib-data = 2.0.0-3.el7 for package: python2-matplotlib-2.0.0-3.el7.x86_64
--> Processing Dependency: python2-cycler >= 0.10.0 for package: python2-matplotlib-2.0.0-3.el7.x86_64
--> Processing Dependency: python2-functools32 for package: python2-matplotlib-2.0.0-3.el7.x86_64
--> Processing Dependency: dvipng for package: python2-matplotlib-2.0.0-3.el7.x86_64
--> Processing Dependency: dejavu-fonts for package: python2-matplotlib-2.0.0-3.el7.x86_64

```

之后在跑完 neutron-compute 脚本的机子，跑图形化界面脚本 iaas-install-dashboard.sh

```

=====
install 1 Package (+70 Dependent packages)

total download size: 26 M
installed size: 115 M
downloading packages:
-----
total
unrunning transaction check
unrunning transaction test
unrunning transaction test succeeded
unrunning transaction
Installing : python2-XStatic-1.0.1-8.el7.noarch
Installing : web-assets-fsfilesystem-5.1.el7.noarch
Installing : python2-scss-1.3.4-6.el7.x86_64
Installing : python-XStatic-Angular-lrdragndrop-1.0.2.2-2.el7.noarch
Installing : xstatic-angular-gettext-common-2.3.8.0-1.el7.noarch
Installing : python2-XStatic-Angular-Gettext-2.3.8.0-1.el7.noarch
Installing : xstatic-jasmine-common-2.4.1.1-1.el7.noarch
Installing : python2-XStatic-Jasmine-2.4.1.1-1.el7.noarch
Installing : mdi-common-1.4.57.0-4.el7.noarch
Installing : python-XStatic-Hogan-2.0.0.2-2.el7.noarch
Installing : xstatic-d3-common-3.5.17.0-1.el7.noarch
Installing : python2-XStatic-D3-3.5.17.0-1.el7.noarch
Installing : xstatic-termjs-common-0.0.7.0-1.el7.noarch

```

之后跑从节点脚本 iaas-install-neutron-compute.sh

```

Installing python2-gevent 1:15.3.0-1.el7
Installed:
  openstack-neutron-linuxbridge.noarch 1:15.3.0-1.el7

Dependency Installed:
  c-ares.x86_64 0:1.10.0-3.el7
  openpgm.x86_64 0:5.2.122-2.el7
  python-beautifulsoup4.noarch 0:4.6.0-1.el7
  python-simplegeneric.noarch 0:0.8-7.el7
  python-webtest.noarch 0:2.0.23-1.el7
  python2-gevent.x86_64 0:1.1.2-2.el7
  python2-neutron.noarch 1:15.3.0-1.el7
  python2-os-ken.noarch 0:0.4.1-1.el7
  python2-osprofiler.noarch 0:2.8.2-1.el7
  python2-setproctitle.x86_64 0:1.1.10-12.el7
  python2-trove.noarch 0:0.5.4-20170523nit1638ac.el7
  libev.x86_64 0:4.15-7.el7
  openstack-neutron-common.noarch 1:15.3.0-1.el7
  python-logutils.noarch 0:0.3.3-3.el7
  python-waitress.noarch 0:0.8.9-5.el7
  python2-designateclient.noarch 0:3.0.0-1.el7
  python2-httplib2.noarch 0:0.18.1-3.el7
  python2-neutron-lib.noarch 0:1.29.1-1.el7
  python2-os-xenapi.noarch 0:0.3.4-1.el7
  python2-pecan.noarch 0:1.3.2-1.el7
  python2-singledispatch.noarch 0:3.4.0.3-4.el7
  python2-weakrefmethod.noarch 0:1.0.2-3.el7

```

之后通过复制连接进行访问 openstack 并输入账户与密码

```

</Directory>

<Directory /usr/share/openstack-dashboard/static>
  Options All
  AllowOverride All
  Require all granted
</Directory>

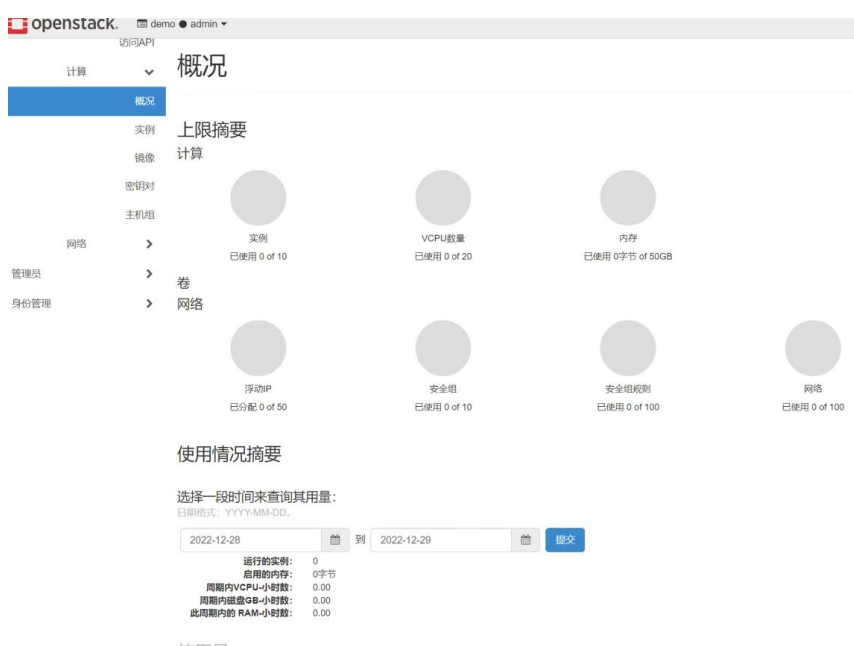
The horizon service is ready, now you can visit the following:
浏览器访问: http://192.168.10.10/dashboard
域: demo
用户名: admin
密码: 000000
信息输出到root目录下的logininfo.txt中了。
[root@controller ~]#

```



The screenshot shows the OpenStack login interface. At the top is the OpenStack logo. Below it is a '登录' (Login) section with three input fields: '域' (Domain) with the value 'demo', '用户名' (Username) with the value 'admin', and '密码' (Password) with masked characters. Below the password field is a link that says '忘记密码?' (Forgot password?).

所有基础主件都配置完成





遇到的问题与解决方案

1. 网络配置冲突

问题描述：部署完成后，虚拟机无法获取 IP 地址，ping 不通外部网络。

排查过程：

检查 Neutron 服务状态，发现 L3 agent 反复重启

查看日志发现"OVS bridge already exists"错误

发现之前测试留下的旧网络配置残留

清理残留网络配置

```
sudo ovs-vsctl del-br br-ex
```

```
sudo ovs-vsctl del-br br-int
```

```
sudo systemctl restart neutron-server neutron-l3-agent neutron-dhcp-agent
```

2. 计算节点无法加入

问题描述：添加计算节点后，nova-compute 服务无法正常注册。

错误现象：

nova.exception.InvalidConfiguration: No hypervisor found

排查步骤：

1. 验证计算节点虚拟化支持：egrep -c '(vmx|svm)' /proc/cpuinfo

2. 发现是 BIOS 中 VT-x 未启用

解决方案：

进入 BIOS 启用 Intel VT-x/AMD-V

加载 kvm 模块：

```
sudo modprobe kvm
```

```
sudo modprobe kvm_intel
```

3. 仪表板访问异常

问题描述：Horizon 仪表板可以登录，但部分页面显示 500 错误。

错误日志：KeyError: 'context_is_admin'

原因分析：

不同组件版本不兼容（Keystone 和 Horizon 版本差异）

缓存数据不一致

清除缓存并重启服务

```
sudo rm -rf /var/cache/apache2/*
```

```
sudo systemctl restart apache2 memcached
```

总结

环境准备至关重要，部署前的硬件检查（虚拟化支持）、系统清理和资源规划直接影响部署成功率。建议制作标准化的预检清单：CPU 虚拟化支持；内存容量（至少 16GB）；磁盘空间（/var 分区单独分配）；网络拓扑规划。

这次实践让我深刻体会到，OpenStack 这样的复杂系统就像一座精密的钟表，每个齿轮（组件）都必须正确啮合。解决问题的过程虽然耗时，但获得的系统级视角和故障排查能力，是理论学习无法替代的宝贵经验。