



链滴

Packstack All-in-One 模式快速搭建 Open Stack

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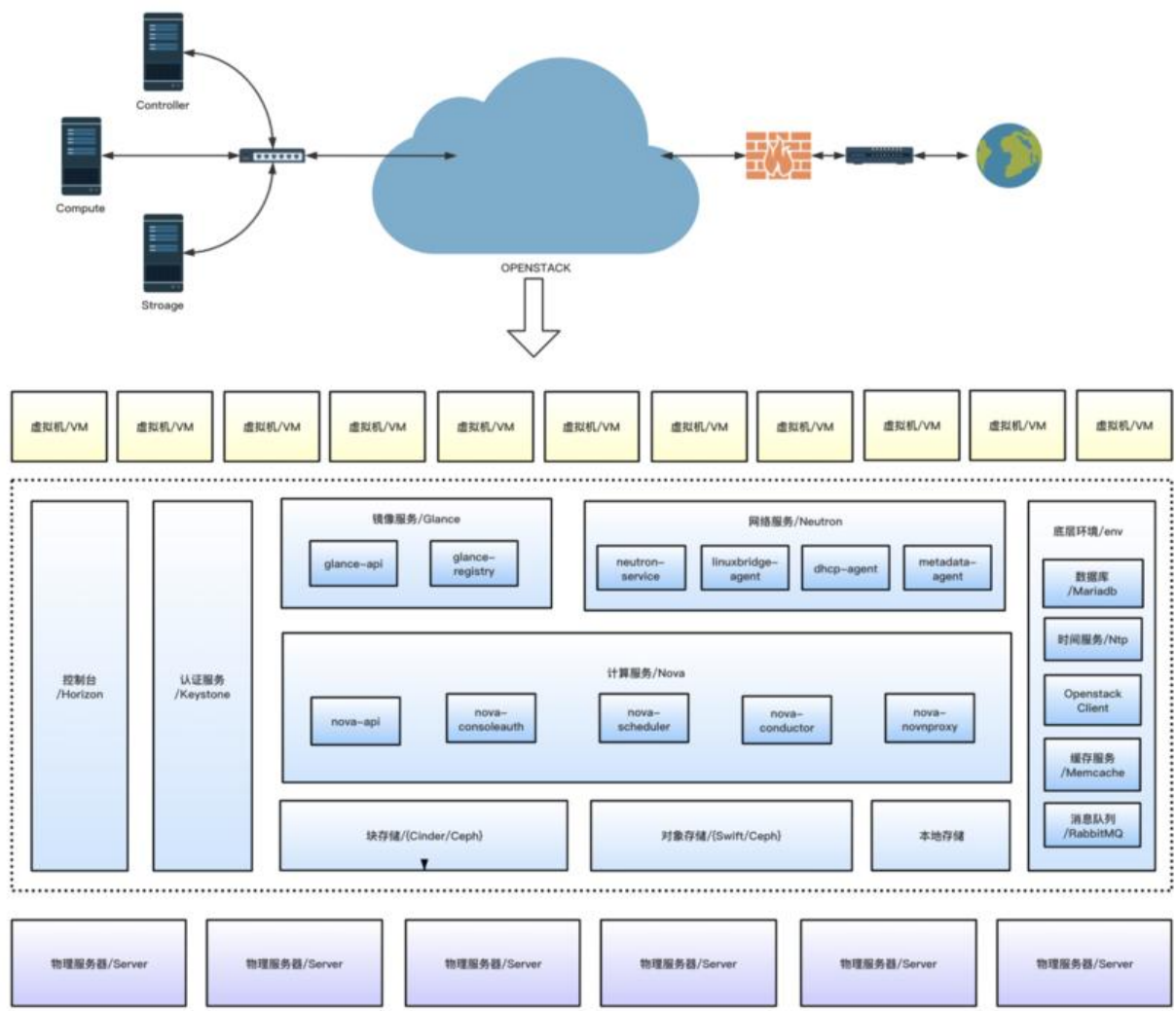


OpenStack

OpenStack是一个开源IaaS云平台管理项目，由一系列子项目构成。其六个核心项目担当系统的基础架构，用于处理计算、网络、存储、身份和镜像服务。

基础架构图

核心组件及其架构布局如下图所示。



跑火车版本号

一个有趣的项目必须配上好玩的版本号，OpenStack的每个主版本系列以字母表顺序（A~Z）命名，年份及当年的排序做版本号，这和Spring Cloud的伦敦地铁站字母命名法十分相似。

Series	Status	Initial Release Date	Next Phase	EOL Date
Yoga	Development	2022-03-30 <i>estimated</i> (schedule)	Maintained <i>estimated</i> 2022-03-30	
Xena	Maintained	2021-10-06	Extended Maintenance <i>estimated 2023-04-06</i>	
Wallaby	Maintained	2021-04-14	Extended Maintenance <i>estimated 2022-10-14</i>	
Victoria	Maintained	2020-10-14	Extended Maintenance <i>estimated 2022-04-27</i>	
Ussuri	Maintained	2020-05-13	Extended Maintenance <i>estimated 2021-11-12</i>	
Train	Extended Maintenance (see note below)	2019-10-16	Unmaintained <i>TBD</i>	
Stein	Extended Maintenance (see note below)	2019-04-10	Unmaintained <i>TBD</i>	
Rocky	Extended Maintenance (see note below)	2018-08-30	Unmaintained <i>TBD</i>	
Queens	Extended Maintenance (see note below)	2018-02-28	Unmaintained <i>TBD</i>	
Pike	Extended Maintenance (see note below)	2017-08-30	Unmaintained <i>TBD</i>	

Packstack

Packstack是由Redhat推出的用于概念验证（PoC）环境快速部署的工具。此类部署工具还有：Fuel Kolla、TripleO、Packstack、OSA、DevStack等。

Packstack是一个命令行工具，它使用Python封装了Puppet模块，通过SSH在服务器上部署OpenStack。

两种部署模式

All-in-One：所有的服务部署到一台服务器上

Multi-Node：控制节点和计算节点分离

All-in-One模式搭建OpenStack

系统环境

虚拟机镜像建议使用纯净的CentOS，可使用下方链接下载，分配内存和CPU核数时建议多给一些，少要分配8G内存给它，否则很可能部署到后面会不成功。

CentOS7 (4H16G) http://isoredirect.centos.org/centos/7/isos/x86_64/

PackStack <https://www.rdoproject.org/install/packstack/>

安装之前

开启SSH，方便使用远程虚拟机的方式来配置。

```
vim /etc/ssh/sshd_config  
Port 22  
systemctl restart sshd
```

配置固定IP地址，控制节点最好使用静态IP，修改下方的IP、网关、子网掩码和DNS即可。

```
vim /etc/sysconfig/network-scripts/ifcfg-eth0  
DEVICE="eth0"  
BOOTPROTO="static"  
ONBOOT="yes"  
IPADDR=192.168.123.15  
NETMASK=255.255.255.0  
GATEWAY=192.168.123.1  
DNS1=192.168.123.1  
DNS2=114.114.114.114  
DNS3=223.6.6.6  
systemctl restart network
```

关闭SELinux，为了防止在安装时遇到问题，建议先关闭SELinux。

```
vim /etc/sysconfig/selinux  
SELINUX=disabled  
reboot
```

先决条件

更新软件及系统内核，关闭防火墙重启网络。

```
su  
yum update -y  
systemctl disable firewalld  
systemctl stop firewalld  
systemctl disable NetworkManager  
systemctl stop NetworkManager  
systemctl restart network
```

软件安装

选择安装OpenStack Train版本，此过程需要一定的时间

```
yum install -y centos-release-openstack-train  
yum update -y  
yum install -y openstack-packstack
```

All-in-One部署

此过程时间更长，可能需要半个小时及以上，如果遵循以上安装步骤，并使用的是春节的CentOS镜像，亲测不会报错。

packstack --allinone

完成后会看到提示successfully

```
Creating ssh keys for Nova migration [ DONE ]
Gathering ssh host keys for Nova migration [ DONE ]
Preparing Nova Compute entries [ DONE ]
Preparing Nova Scheduler entries [ DONE ]
Preparing Nova VNC Proxy entries [ DONE ]
Preparing OpenStack Network-related Nova entries [ DONE ]
Preparing Nova Common entries [ DONE ]
Preparing Neutron API entries [ DONE ]
Preparing Neutron L3 entries [ DONE ]
Preparing Neutron L2 Agent entries [ DONE ]
Preparing Neutron DHCP Agent entries [ DONE ]
Preparing Neutron Metering Agent entries [ DONE ]
Checking if NetworkManager is enabled and running [ DONE ]
Preparing OpenStack Client entries [ DONE ]
Preparing Horizon entries [ DONE ]
Preparing Swift builder entries [ DONE ]
Preparing Swift proxy entries [ DONE ]
Preparing Swift storage entries [ DONE ]
Preparing Gnocchi entries [ DONE ]
Preparing Redis entries [ DONE ]
Preparing Ceilometer entries [ DONE ]
Preparing Aodh entries [ DONE ]
Preparing Puppet manifests [ DONE ]
Copying Puppet modules and manifests [ DONE ]
Applying 192.168.123.15_controller.pp [ DONE ]
192.168.123.15_controller.pp: [ DONE ]
Applying 192.168.123.15_network.pp [ DONE ]
192.168.123.15_network.pp: [ DONE ]
Applying 192.168.123.15_compute.pp [ DONE ]
192.168.123.15_compute.pp: [ DONE ]
Applying Puppet manifests [ DONE ]
Finalizing [ DONE ]

**** Installation completed successfully ****

Additional information:
* Parameter CONFIG_NEUTRON_L2_AGENT: You have chosen OVN Neutron backend. Note that this backend does not support the VPNaaS or FWaaS services. Geneve will be used as the encapsulation method for tenant networks.
* A new answerfile was created in: /root/packstack-answers-20211111-160603.txt
* 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 192.168.123.15. To use the command line tools you need to source the file.
* To access the OpenStack Dashboard browse to http://192.168.123.15/dashboard .
Please, find your login credentials stored in the keystonerc_admin in your home directory.
* Because of the kernel update the host 192.168.123.15 requires reboot.
* The installation log file is available at: /var/tmp/packstack/20211111-160602-5EujnP/openstack-setup.log
* The generated manifests are available at: /var/tmp/packstack/20211111-160602-5EujnP/manifests
[root@localhost jeffrey]#
```

Dashboard

获取Dashboard admin的密钥，使用admin环境变量作为当前Shell环境下的操作权限。

```
cat /root/keystonerc_admin
source ./keystonerc_admin
```

安装视频

如果对安装步骤还不清楚的，可以参考我上传在B站的视频。

```
<center>
<iframe src="//player.bilibili.com/player.html?aid=719173697&bvid=BV1KQ4y1U7vd&cid=41306216&page=1" scrolling="no" border="0" frameborder="no" framespacing="0" allowfullscreen="true" width="520" height="400"> </iframe>
</center?>
```