OSP 10 - All in one

1 .- Resumen de Laboratorio

Con la finalidad de proveer de una plataforma de funcionalidades IaaS, Red Hat apoya a Grupo Financiero Actinver implementando los siguientes componentes en un ambiente de laboratorio :

- Red Hat Openstack Platform v10+u con Packstack.

Dicho laboratorio esta diseñado para acercar lo mas posible la funcionalidad actual a un ambiente de Desarrollo ó Pruebas.

El laboratorio consta de una implementación estándar por lo cual no se realizó ninguna tarea adicional (tunning) a ninguno de los componentes, no se contemplaron tareas de benckmarking, por lo cual sí el cliente requiere obtener métricas de consumo, performance o sizing, se tendrán que realizar tareas en una definición externa a este documento.

> ❗ Este laboratorio se realizó con Packstack debido a que durante la instalación con OSP Director las interfaces de red de los servidores IBM x240 8737AC1 durante el proceso introspección no realizaban el proceso adecuado de descarga de imagenes, Actualmente se tiene un ticket abierto con Red Hat sin embargo todo apunta a un problema de HW.

Componentes del entorno de laboratorio

- Una estación de trabajo cliente.
- Dos nodos control
- Tres nodos de computo

Designaciones de nodos

Los comandos se deben ejecutar en nodos específicos. Cada paso menciona el nodo o los nodos en los que se debe ejecutar entre corchetes, de la siguiente manera:

- [Control]
- [Computo]

Por ejemplo:

Ejecute este comando en los nodos **Control** y en el nodo **Computo**:

[Control01-02] [Computo01-03]

```
# yum install ntp
```

Table 1. Segmentación de equipos

Server No.	Hostname	Rol	Ip MGNT	Ip Publica / mask /gw/dns	interfaz
	satellite01.example.com	Satellite	10.10.110.21	N/A	

Server No.	Hostname	Rol	Ip MGNT	Ip Publica / mask /gw/dns	interfaz
S6	ctr01.example.com	Controller	10.10.205.19	10.12.8.11/24/10.12.8.254/10.11.9.250	4 y 5
S7	ctr02.example.com	Controller	10.10.205.20	10.12.8.12/24/10.12.8.254/10.11.9.250	4 y 5
S9	compute01.example.com	Compute	10.10.205.21	10.12.8.13/24/10.12.8.254/10.11.9.250	4 y 5
S11	compute02.example.com	Compute	10.10.205.23	10.12.8.14/24/10.12.8.254/10.11.9.250	4 y 5
S12	compute03.example.com	Compute	10.10.205.24	10.12.8.15/24/10.12.8.254/10.11.9.250	4 y 5
	satellite01.example.com	Satellite	10.10.110.21	N/A	

2 .- Preparando Ambiente de Laboratorio.

1.- Validando canales/repositorios necesarios.

En los nodos de Control, Computo, valide que tiene los repositorios necesarios para la instalación:

[Control01-02] [Computo01-03]

```
# yum repolist
```

- Salida Esperada:

BASH

```
Complementos cargados:enabled_repos_upload, package_upload, product-id, search-disabled-repos,
                      : subscription-manager
nombre del repositorio                            estado
rhel-7-server-extras-rpms/x86_64                  RH Enterprise Linux 7 Server      710
rhel-7-server-openstack-10-devtools-rpms/7Server/x86_64 RH OpenStack Platform 10 Deve     8
rhel-7-server-openstack-10-optools-rpms/7Server/x86_64  RH OpenStack Platform 10 Oper     99
rhel-7-server-openstack-10-rpms/7Server/x86_64    RH OpenStack Platform 10 for   1 711
rhel-7-server-rh-common-rpms/7Server/x86_64       RH Enterprise Linux 7 Server      231
rhel-7-server-rpms/7Server/x86_64                 RH Enterprise Linux 7 Server  17 802
rhel-7-server-satellite-tools-6.2-rpms/x86_64     RH Satellite Tools 6.2 (for R     132
rhel-ha-for-rhel-7-server-rpms/7Server/x86_64     RH Enterprise Linux High Avai     391
repolist: 21 084
Uploading Enabled Repositories Report
Complementos cargados:product-id, subscription-manager
```

> 💡 Red Hat actualiza periódicamente sus repositorios, por lo que la cantidad de paquetes puede variar de los que se muestran arriba. Lo mismo para versiones de productos menores o superiores.

2.- Actualizar nodos:

Antes de comenzar los laboratorios restantes, asegúrese de que sus paquetes estén actualizados.

a) Actualice los paquetes en todos los nodos

[Control01-02] [Computo01-03]

```
# yum -y update
```

- Salida Esperada:

```
                                                                                   BASH
[root@f2lctr01 ~]# yum -y update
Complementos cargados:enabled_repos_upload, package_upload, product-id, search-disabled-repos,
                    : subscription-manager
rhel-7-server-openstack-10-devtools-rpms                        | 2.3 kB  00:00:00
rhel-7-server-openstack-10-optools-rpms                         | 2.3 kB  00:00:00
Resolviendo dependencias
--> Ejecutando prueba de transacción
---> Paquete pyOpenSSL.x86_64 0:0.13.1-3.el7 debe ser obsoleto
---> Paquete python-dateutil.noarch 0:1.5-7.el7 debe ser actualizado
---> Paquete python-dateutil.noarch 1:2.4.2-1.el7ost debe ser una actualización
--> Procesando dependencias: python-six para el paquete: 1:python-dateutil-2.4.2-1.el7ost.noarch
---> Paquete python-lxml.x86_64 0:3.2.1-4.el7 debe ser actualizado
---> Paquete python-lxml.x86_64 0:3.2.1-5.el7ost debe ser una actualización
---> Paquete python-pyOpenSSL.noarch 0:16.2.0-3.el7ost debe ser obsoleto
--> Procesando dependencias: python-cryptography >= 1.3.0 para el paquete: python-pyOpenSSL-16.2.0-
3.el7ost.noarch
--> Ejecutando prueba de transacción
---> Paquete python-six.noarch 0:1.9.0-2.el7 debe ser instalado
---> Paquete python2-cryptography.x86_64 0:1.7.2-1.el7_4.1 debe ser instalado
--> Procesando dependencias: python-pyasn1 >= 0.1.8 para el paquete: python2-cryptography-1.7.2-1.el7_4.1.x86_64
--> Procesando dependencias: python-idna >= 2.0 para el paquete: python2-cryptography-1.7.2-1.el7_4.1.x86_64
--> Procesando dependencias: python-cffi >= 1.4.1 para el paquete: python2-cryptography-1.7.2-1.el7_4.1.x86_64
--> Procesando dependencias: python-ipaddress para el paquete: python2-cryptography-1.7.2-1.el7_4.1.x86_64
--> Procesando dependencias: python-enum34 para el paquete: python2-cryptography-1.7.2-1.el7_4.1.x86_64
--> Ejecutando prueba de transacción
---> Paquete python-cffi.x86_64 0:1.6.0-5.el7 debe ser instalado
--> Procesando dependencias: python-pycparser para el paquete: python-cffi-1.6.0-5.el7.x86_64
---> Paquete python-enum34.noarch 0:1.0.4-1.el7 debe ser instalado
---> Paquete python-idna.noarch 0:2.4-1.el7 debe ser instalado
---> Paquete python-ipaddress.noarch 0:1.0.16-2.el7 debe ser instalado
---> Paquete python2-pyasn1.noarch 0:0.1.9-7.el7 debe ser instalado
--> Ejecutando prueba de transacción
---> Paquete python-pycparser.noarch 0:2.14-1.el7 debe ser instalado
--> Procesando dependencias: python-ply para el paquete: python-pycparser-2.14-1.el7.noarch
--> Ejecutando prueba de transacción
---> Paquete python-ply.noarch 0:3.4-11.el7 debe ser instalado
--> Resolución de dependencias finalizada

Dependencias resueltas

 python-pyOpenSSL        noarch    16.2.0-3.el7ost     rhel-7-server-openstack-10-rpms    88 k
     reemplazando  pyOpenSSL.x86_64 0.13.1-3.el7
Actualizando:
 python-dateutil         noarch    1:2.4.2-1.el7ost    rhel-7-server-openstack-10-rpms    84 k
 python-lxml             x86_64    3.2.1-5.el7ost      rhel-7-server-openstack-10-rpms   847 k
Instalando para las dependencias:
 python-cffi             x86_64    1.6.0-5.el7         rhel-7-server-rpms                218 k
 python-enum34           noarch    1.0.4-1.el7         rhel-7-server-rpms                 52 k
 python-idna             noarch    2.4-1.el7           rhel-7-server-rpms                 94 k
 python-ipaddress        noarch    1.0.16-2.el7        rhel-7-server-rpms                 34 k
 python-ply              noarch    3.4-11.el7          rhel-7-server-rpms                123 k
 python-pycparser        noarch    2.14-1.el7          rhel-7-server-rpms                105 k
 python-six              noarch    1.9.0-2.el7         rhel-7-server-rpms                 29 k
 python2-cryptography    x86_64    1.7.2-1.el7_4.1     rhel-7-server-rpms                502 k
 python2-pyasn1          noarch    0.1.9-7.el7         rhel-7-server-rpms                100 k

Resumen de la transacción
================================================================================================
Instalar    1 Paquete   (+9 Paquetes dependientes)
Actualizar  2 Paquetes

Tamaño total de la descarga: 2.2 M
Downloading packages:
Delta RPMs disabled because /usr/bin/applydeltarpm not installed.
(1/12): python-dateutil-2.4.2-1.el7ost.noarch.rpm               |  84 kB  00:00:00
(2/12): python-cffi-1.6.0-5.el7.x86_64.rpm                      | 218 kB  00:00:00
(3/12): python-enum34-1.0.4-1.el7.noarch.rpm                    |  52 kB  00:00:00
```

```
(4/12): python-ipaddress-1.0.16-2.el7.noarch.rpm                     |  34 kB  00:00:00
(5/12): python-idna-2.4-1.el7.noarch.rpm                             |  94 kB  00:00:00
(6/12): python-ply-3.4-11.el7.noarch.rpm                             | 123 kB  00:00:00
(7/12): python-pycparser-2.14-1.el7.noarch.rpm                       | 105 kB  00:00:00
(8/12): python-six-1.9.0-2.el7.noarch.rpm                            |  29 kB  00:00:00
(9/12): python-lxml-3.2.1-5.el7ost.x86_64.rpm                        | 847 kB  00:00:00
(10/12): python-pyOpenSSL-16.2.0-3.el7ost.noarch.rpm                 |  88 kB  00:00:00
(11/12): python2-cryptography-1.7.2-1.el7_4.1.x86_64.rpm             | 502 kB  00:00:00
(12/12): python2-pyasn1-0.1.9-7.el7.noarch.rpm                       | 100 kB  00:00:00
--------------------------------------------------------------------------------------------
Total                                               4.8 MB/s | 2.2 MB  00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Instalando     : python-six-1.9.0-2.el7.noarch                                 1/15
  Instalando     : python2-pyasn1-0.1.9-7.el7.noarch                             2/15
  Instalando     : python-enum34-1.0.4-1.el7.noarch                              3/15
  Instalando     : python-ipaddress-1.0.16-2.el7.noarch                          4/15
  Instalando     : python-ply-3.4-11.el7.noarch                                  5/15
  Instalando     : python-pycparser-2.14-1.el7.noarch                            6/15
  Instalando     : python-cffi-1.6.0-5.el7.x86_64                                7/15
  Instalando     : python-idna-2.4-1.el7.noarch                                  8/15
  Instalando     : python2-cryptography-1.7.2-1.el7_4.1.x86_64                   9/15
  Instalando     : python-pyOpenSSL-16.2.0-3.el7ost.noarch                       10/15
  Actualizando   : 1:python-dateutil-2.4.2-1.el7ost.noarch                       11/15
  Actualizando   : python-lxml-3.2.1-5.el7ost.x86_64                             12/15
  Limpieza       : python-dateutil-1.5-7.el7.noarch                              13/15
  Eliminando     : pyOpenSSL-0.13.1-3.el7.x86_64                                 14/15
  Limpieza       : python-lxml-3.2.1-4.el7.x86_64                                15/15
Uploading Package Profile
rhel-7-server-openstack-10-devtools-rpms/7Server/x86_64/productid    | 2.1 kB  00:00:00
rhel-7-server-openstack-10-optools-rpms/7Server/x86_64/productid     | 2.1 kB  00:00:00
  Comprobando    : python-idna-2.4-1.el7.noarch                                  1/15
  Comprobando    : python-pycparser-2.14-1.el7.noarch                            2/15
  Comprobando    : python-ply-3.4-11.el7.noarch                                  3/15
  Comprobando    : python-pyOpenSSL-16.2.0-3.el7ost.noarch                       4/15
  Comprobando    : python-lxml-3.2.1-5.el7ost.x86_64                             5/15
  Comprobando    : python-cffi-1.6.0-5.el7.x86_64                                6/15
  Comprobando    : python-ipaddress-1.0.16-2.el7.noarch                          7/15
  Comprobando    : python-enum34-1.0.4-1.el7.noarch                              8/15
  Comprobando    : python2-pyasn1-0.1.9-7.el7.noarch                             9/15
  Comprobando    : python-six-1.9.0-2.el7.noarch                                 10/15
  Comprobando    : python2-cryptography-1.7.2-1.el7_4.1.x86_64                   11/15
  Comprobando    : 1:python-dateutil-2.4.2-1.el7ost.noarch                       12/15
  Comprobando    : pyOpenSSL-0.13.1-3.el7.x86_64                                 13/15
  Comprobando    : python-dateutil-1.5-7.el7.noarch                              14/15
  Comprobando    : python-lxml-3.2.1-4.el7.x86_64                                15/15

Instalado:
  python-pyOpenSSL.noarch 0:16.2.0-3.el7ost

Dependencia(s) instalada(s):
  python-cffi.x86_64 0:1.6.0-5.el7              python-enum34.noarch 0:1.0.4-1.el7
  python-idna.noarch 0:2.4-1.el7               python-ipaddress.noarch 0:1.0.16-2.el7
  python-ply.noarch 0:3.4-11.el7               python-pycparser.noarch 0:2.14-1.el7
  python-six.noarch 0:1.9.0-2.el7              python2-cryptography.x86_64 0:1.7.2-1.el7_4.1
  python2-pyasn1.noarch 0:0.1.9-7.el7

Actualizado:
  python-dateutil.noarch 1:2.4.2-1.el7ost      python-lxml.x86_64 0:3.2.1-5.el7ost

Sustituido(s):
  pyOpenSSL.x86_64 0:0.13.1-3.el7

¡Listo!
Uploading Enabled Repositories Report
Complementos cargados:product-id, subscription-manager
```

b) En caso de tener una nueva versión de Kernel, reinicie los nodos:

```
# reboot
```

3.- Instalar Utilerias de OpenStack.

OpenStack requiere unos pocos paquetes base y definiciones de políticas (SELinux) en todos los nodos.

a) Como **root**, ejecute el siguiente comando en todos los nodos:

[Control01-02] [Computo01-03]

```
# yum -y install openstack-utils openstack-selinux
```

4.- Configurando Firewall

a) Instale el paquete iptables-services en todos los nodos:

[Control01-03] [Computo01-03]

```
# yum -y install iptables-services
```

b) Iniciar y habilitar los servicios de iptables e ip6tables.

[Control01-02] [Compute01-03]

```
# systemctl start iptables.service ip6tables.service
# systemctl enable iptables.service ip6tables.service
```

5.- Configurar NTP Server en nodo Controller.

a) Vea el archivo /etc/ntp.conf y asegúrese de que contiene las siguientes declaraciones del servidor:

[Control01]

- Salida Esperada:

BASH

```
server 10.10.113.50 iburst
```

b) En la parte superior del archivo, comente las tres líneas de restricción para permitir el acceso y agregue lo siguiente:

[Control01]

```
restrict -4 default kod notrap nomodify
restrict -6 default kod notrap nomodify
```

c) Guarde y cierre el archivo

d) Inicie y habilite el servicio de NTP.

[Control01]

```
# systemctl enable ntpd.service
# systemctl start ntpd.service
```

e) abra el archivo /etc/sysconfig/iptables con un editor de textos.

f) Agregue una regla de entrada que permita el tráfico UDP en el puerto 123 para que el servidor NTP pueda responder las consultas que le realicen.

[Control01]

```
-A INPUT -p udp -m udp --dport 123 -j ACCEPT
```

g) Reinicie el servicio de iptables y verifique la configuración:

[Control01]

```
# systemctl restart iptables.service
# iptables -L
```

- Salida Esperada:

BASH

```
Chain INPUT (policy ACCEPT)
target     prot opt source               destination
ACCEPT     all  --  anywhere             anywhere             state RELATED,ESTABLISHED
ACCEPT     icmp --  anywhere             anywhere
ACCEPT     all  --  anywhere             anywhere
ACCEPT     tcp  --  anywhere             anywhere             state NEW tcp dpt:ssh
ACCEPT     udp  --  anywhere             anywhere             udp dpt:ntp
REJECT     all  --  anywhere             anywhere             reject-with icmp-host-prohibited

Chain FORWARD (policy ACCEPT)
target     prot opt source               destination
REJECT     all  --  anywhere             anywhere             reject-with icmp-host-prohibited

Chain OUTPUT (policy ACCEPT)
target     prot opt source               destination
```

6.- Configurando NTP en nodos Control y Compute.

a) En los nodos Compute y el nodo Almacenamiento, instale los paquetes NTP requeridos:

b) Edite el archivo /etc/ntp.conf para que la declaración del servidor apunte a su nodo Control.

[Control02] [Computo01-03]

```
server ctrl.example.com iburst
```

c) Guarde y Cierre el Archivo.

d) Inicie y habilite el servicio de NTP.

[Control02] [Computo01-03]

```
# systemctl enable ntpd.service
# systemctl start ntpd.service
```

7 Deshabilitando Network Manager

En esta sección, primero deshabilite Network Manager en su nodo Controller, Compute nodes. Luego habilite e inicie el servicio de **network** estándar.

a) Como usuario root, detenga y deshabilite el servicio de Network Manager:

[Control01-02] [Computo01-03]

```
# systemctl stop NetworkManager.service
# systemctl disable NetworkManager.service
```

b) Asegúrese de que el servicio **network** tome el control de las interfaces estableciendo la opción NM_CONTROLLED en "no":

[Control01-02] [Computo01-03]

```
echo 'NM_CONTROLLED="no"' | tee -a /etc/sysconfig/network-scripts/ifcfg-eth0
```

c) Reinicie los nodos.

[Control01-02] [Computo01-03]

```
# reboot
```

3 .- Laboratorio Packstack.

[root@f2lctr01 ~]# yum install openstack-packstackComplementos cargados:enabled_repos_upload, package_upload, : product-id, search-disabled-repos, : subscription-manager rhel-7-server-extras-rpms | 2.0 kB 00:00 rhel-7-server-openstack-10-devtools-rpms | 2.3 kB 00:00 rhel-7-server-openstack-10-optools-rpms | 2.3 kB 00:00 rhel-7-server-openstack-10-rpms | 2.3 kB 00:00 rhel-7-server-rh-common-rpms | 2.1 kB 00:00 rhel-7-server-rpms | 2.0 kB 00:00 rhel-7-server-satellite-tools-6.2-rpms | 2.1 kB 00:00 rhel-ha-for-rhel-7-server-rpms | 2.0 kB 00:00 El paquete 1:openstack-packstack-9.0.3-4.el7ost.noarch ya se encuentra instalado con su versión más reciente Nada para hacer Uploading Enabled Repositories Report Complementos cargados:product-id, subscription-manager [root@f2lctr01 ~]#

[root@f2lctr01 ~]# ssh-keygen -t rsa Generating public/private rsa key pair. Enter file in which to save the key (/root/.ssh/id_rsa): /root/.ssh/id_rsa already exists. Overwrite (y/n)? y Enter passphrase (empty for no passphrase): Enter same passphrase again: Your identification has been saved in /root/.ssh/id_rsa. Your public key has been saved in /root/.ssh/id_rsa.pub. The key fingerprint is: SHA256:M13MAJsIA3rWgQoKLkNERlKXb8LLQJB3aFrbWwkeP+k root@f2lctr01.actinver.com.mx The key's randomart image is: ---[RSA 2048]---- |Oo+=. ... | |*oBo=+ . o + | |BBo.=.oo + | |*o = O . . | |.. o B .S . | | + E o | | | | | | | | +----[SHA256]----- [root@f2lctr01 ~]# packstack --gen-answer-file ~/answers.txt

[root@f2lctr01 ~]# packstack --answer-file ~/answers.txt Welcome to the Packstack setup utility

The installation log file is available at: /var/tmp/packstack/20171220-111227-9tDkm_/openstack-setup.log

Installing: Clean Up [DONE] Discovering ip protocol version [DONE] Setting up ssh keys [DONE] Preparing servers [DONE] Pre installing Puppet and discovering hosts' details [DONE] Preparing pre-install entries [DONE] Installing time synchronization via NTP [DONE] Setting up CACERT [DONE] Preparing AMQP entries [DONE] Preparing MariaDB entries [DONE] Fixing Keystone LDAP config parameters to be undef if empty[DONE] Preparing Keystone entries [DONE] Preparing Glance entries [DONE] Checking if the Cinder server has a cinder-volumes vg[DONE] Preparing Cinder entries [DONE] Preparing Nova API entries [DONE] 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 LBaaS Agent 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 Heat entries [DONE] Preparing Heat CloudWatch API entries [DONE] Preparing Heat CloudFormation API entries [DONE] Preparing Gnocchi entries [DONE] Preparing MongoDB 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 10.12.8.11_controller.pp 10.12.8.11_controller.pp: [DONE] Applying 10.12.8.12_network.pp Applying 10.12.8.11_network.pp 10.12.8.11_network.pp: [DONE] 10.12.8.12_network.pp: [DONE] Applying 10.12.8.15_compute.pp Applying 10.12.8.14_compute.pp Applying 10.12.8.13_compute.pp 10.12.8.15_compute.pp: [DONE] 10.12.8.13_compute.pp: [DONE] 10.12.8.14_compute.pp: [DONE] Applying Puppet manifests [DONE] Finalizing [DONE]

- Installation completed successfully

Additional information: * File /root/keystonerc_admin has been created on OpenStack client host 10.12.8.11. To use the command line tools you need to source the file. * To access the OpenStack Dashboard browse to https://10.12.8.11/dashboard . Please, find your login credentials stored in the keystonerc_admin in your home directory. * Because of the kernel update the host 10.12.8.15 requires reboot. * Because of the kernel update the host 10.12.8.14 requires reboot. * Because of the kernel update the host 10.12.8.12 requires reboot. * The installation log file is available at: /var/tmp/packstack/20171220-111227-9tDkm_/openstack-setup.log * The generated manifests are available at: /var/tmp/packstack/20171220-111227-9tDkm_/manifests

[root@f2lctr01 ~]# source keystonerc_admin [root@f2lctr01 ~(keystone_admin)]# cat keystonerc_admin unset OS_SERVICE_TOKEN export OS_USERNAME=admin export OS_PASSWORD=Actinver01 export OS_AUTH_URL=http://10.12.8.11:5000/v2.0 export PS1='[\u@\h \W(keystone_admin)]\$ '

export OS_TENANT_NAME=admin export OS_REGION_NAME=RegionOne

[root@f2lctr01 ~(keystone_admin)]# openstack-service status MainPID=8644 Id=neutron-dhcp-agent.service ActiveState=active MainPID=8727 Id=neutron-l3-agent.service ActiveState=active MainPID=8685 Id=neutron-lbaasv2-agent.service ActiveState=active MainPID=8771 Id=neutron-metadata-agent.service ActiveState=active MainPID=8605 Id=neutron-metering-agent.service ActiveState=active MainPID=8565 Id=neutron-openvswitch-agent.service ActiveState=active MainPID=6147 Id=neutron-server.service ActiveState=active MainPID=28123 Id=openstack-aodh-evaluator.service ActiveState=active MainPID=28040 Id=openstack-aodh-listener.service ActiveState=active MainPID=28075 Id=openstack-aodh-notifier.service ActiveState=active MainPID=29703 Id=openstack-ceilometer-central.service ActiveState=active MainPID=29661 Id=openstack-ceilometer-collector.service ActiveState=active MainPID=29622 Id=openstack-ceilometer-notification.service ActiveState=active MainPID=29332 Id=openstack-cinder-api.service ActiveState=active MainPID=29371 Id=openstack-cinder-backup.service ActiveState=active MainPID=29447 Id=openstack-cinder-scheduler.service ActiveState=active MainPID=29406 Id=openstack-cinder-volume.service ActiveState=active MainPID=5697 Id=openstack-glance-api.service ActiveState=active MainPID=5490 Id=openstack-glance-registry.service ActiveState=active MainPID=28274 Id=openstack-gnocchi-metricd.service ActiveState=active MainPID=28227 Id=openstack-gnocchi-statsd.service ActiveState=active MainPID=6299 Id=openstack-heat-api-cfn.service ActiveState=active MainPID=6420 Id=openstack-heat-api-cloudwatch.service ActiveState=active MainPID=6373 Id=openstack-heat-api.service ActiveState=active MainPID=6338 Id=openstack-heat-engine.service ActiveState=active MainPID=0 Id=openstack-losetup.service ActiveState=active MainPID=28923 Id=openstack-nova-api.service ActiveState=active MainPID=28782 Id=openstack-nova-cert.service ActiveState=active MainPID=29170 Id=openstack-nova-conductor.service ActiveState=active MainPID=28874 Id=openstack-nova-consoleauth.service ActiveState=active MainPID=28841 Id=openstack-nova-novncproxy.service ActiveState=active MainPID=29114 Id=openstack-nova-scheduler.service ActiveState=active MainPID=4223 Id=openstack-swift-account-auditor.service ActiveState=active MainPID=3809 Id=openstack-swift-account-reaper.service ActiveState=active MainPID=3853 Id=openstack-swift-account-replicator.service ActiveState=active MainPID=3978 Id=openstack-swift-account.service ActiveState=active MainPID=3896 Id=openstack-swift-container-auditor.service ActiveState=active MainPID=3766 Id=openstack-swift-container-replicator.service ActiveState=active MainPID=5987 Id=openstack-swift-container-updater.service ActiveState=active MainPID=3939 Id=openstack-swift-container.service ActiveState=active MainPID=4176 Id=openstack-swift-object-auditor.service ActiveState=active MainPID=4127 Id=openstack-swift-object-expirer.service ActiveState=active MainPID=4069 Id=openstack-swift-object-replicator.service ActiveState=active MainPID=5736 Id=openstack-swift-object-updater.service ActiveState=active MainPID=4023 Id=openstack-swift-object.service ActiveState=active MainPID=5529 Id=openstack-swift-proxy.service ActiveState=active

[root@f2lctr01 ~(keystone_admin)]# nova hypervisor-list

| ID | Hypervisor hostname | State | Status |

| 1 | f2lcompute3.actinver.com.mx | up | enabled | | 2 | f2lcompute1.actinver.com.mx | up | enabled | | 3 | f2lcompute2.actinver.com.mx | up | enabled | ---+

[root@f2lctr01 ~(keystone_admin)]# nova hypervisor-show f2lcompute1.actinver.com.mx --+ | Property | Value | --+ | cpu_info_arch | x86_64 | | cpu_info_features | ["pge", "avx", "xsaveopt", "clflush", | | | "sep", "syscall", "tsc-deadline", | | | "dtes64", "msr", "xsave", "vmx", "xtpr", | | | "cmov", "pcid", "est", "pat", "monitor", | | | "smx", "pbe", "lm", "tsc", "nx", "fxsr", | | | "tm", "sse4.1", "pae", "sse4.2", | | | "pclmuldq", "acpi", "vme", "mmx", | | | "osxsave", "cx8", "mce", "de", "rdtscp", | | | "ht", "dca", "lahf_lm", "pdcm", "mca", | | | "pdpe1gb", "apic", "sse", "pse", "ds", | | | "invtsc", "pni", "tm2", "aes", "sse2", | | | "ss", "ds_cpl", "arat", "ssse3", "fpu", | | | "cx16", "pse36", "mtrr", "popcnt", | | | "x2apic"] | | cpu_info_model | SandyBridge | | cpu_info_topology_cells | 2 | | cpu_info_topology_cores | 8 | | cpu_info_topology_sockets | 1 | | cpu_info_topology_threads | 2 | | cpu_info_vendor | Intel | | current_workload | 0 | | disk_available_least | 47 | | free_disk_gb | 49 | | free_ram_mb | 130528 | | host_ip | 10.12.8.13 | | hypervisor_hostname | f2lcompute1.actinver.com.mx | | hypervisor_type | QEMU | | hypervisor_version | 2009000 | | id | 2 | | local_gb | 49 | | local_gb_used | 0 | | memory_mb | 131040 | | memory_mb_used | 512 | | running_vms | 0 | | service_disabled_reason | None | | service_host | f2lcompute1.actinver.com.mx | | service_id | 22 | | state | up | | status | enabled | | vcpus | 32 | | vcpus_used | 0 | --+

[root@f2lctr01 ~(keystone_admin)]# nova hypervisor-show f2lcompute2.actinver.com.mx --+ | Property | Value | --+ | cpu_info_arch | x86_64 | | cpu_info_features | ["pge", "avx", "xsaveopt", "clflush", | | | "sep", "syscall", "tsc-deadline", | | | "dtes64", "msr", "xsave", "vmx", "xtpr", | | | "cmov", "pcid", "est", "pat", "monitor", | | | "smx", "pbe", "lm", "tsc", "nx", "fxsr", | | | "tm", "sse4.1", "pae", "sse4.2", | | | "pclmuldq", "acpi", "vme", "mmx", | | | "osxsave", "cx8", "mce", "de", "rdtscp", | | | "ht", "dca", "lahf_lm", "pdcm", "mca", | | | "pdpe1gb", "apic", "sse", "pse", "ds", | | | "invtsc", "pni", "tm2", "aes", "sse2", | | | "ss", "ds_cpl", "arat", "ssse3", "fpu", | | | "cx16", "pse36", "mtrr", "popcnt", | | | "x2apic"] | | cpu_info_model | SandyBridge | | cpu_info_topology_cells | 2 | | cpu_info_topology_cores | 8 | | cpu_info_topology_sockets | 1 | | cpu_info_topology_threads | 2 | | cpu_info_vendor | Intel | | current_workload | 0 | | disk_available_least | 47 | | free_disk_gb | 49 | | free_ram_mb | 130529 | | host_ip | 10.12.8.14 | | hypervisor_hostname | f2lcompute2.actinver.com.mx | | hypervisor_type | QEMU | | hypervisor_version | 2009000 | | id | 3 | | local_gb | 49 | | local_gb_used | 0 | | memory_mb | 131041 | | memory_mb_used | 512 | | running_vms | 0 | | service_disabled_reason | None | | service_host | f2lcompute2.actinver.com.mx | | service_id | 23 | | state | up | | status | enabled | | vcpus | 32 | | vcpus_used | 0 | --+

[root@f2lctr01 ~(keystone_admin)]# nova hypervisor-show f2lcompute3.actinver.com.mx --+ | Property | Value | --+ | cpu_info_arch | x86_64 | | cpu_info_features | ["pge", "avx", "xsaveopt", "clflush", | | | "sep", "syscall", "tsc-deadline", | | | "dtes64", "msr", "xsave", "vmx", "xtpr", | | | "cmov", "pcid", "est", "pat", "monitor", | | | "smx", "pbe", "lm", "tsc", "nx", "fxsr", | | | "tm", "sse4.1", "pae", "sse4.2", | | | "pclmuldq", "acpi", "vme", "mmx", | | | "osxsave", "cx8", "mce", "de", "rdtscp", | | | "ht", "dca", "lahf_lm", "pdcm", "mca", | | | "pdpe1gb", "apic", "sse", "pse", "ds", | | | "invtsc", "pni", "tm2", "aes", "sse2", | | | "ss", "ds_cpl", "arat", "ssse3", "fpu", | | | "cx16", "pse36", "mtrr", "popcnt", | | | "x2apic"] | | cpu_info_model | SandyBridge | | cpu_info_topology_cells | 2 | | cpu_info_topology_cores | 8 | | cpu_info_topology_sockets | 1 | | cpu_info_topology_threads | 2 | | cpu_info_vendor | Intel | | current_workload | 0 | | disk_available_least | 47 | | free_disk_gb | 49 | | free_ram_mb | 130528 | | host_ip | 10.12.8.15 | | hypervisor_hostname | f2lcompute3.actinver.com.mx | | hypervisor_type | QEMU | | hypervisor_version | 2009000 | | id | 1 | | local_gb | 49 | | local_gb_used | 0 | | memory_mb | 131040 | | memory_mb_used | 512 | | running_vms | 0 | | service_disabled_reason | None | | service_host | f2lcompute3.actinver.com.mx | | service_id | 21 | | state | up | | status | enabled | | vcpus | 32 | | vcpus_used | 0 | --+

[root@f2lctr01 network-scripts]# ls ifcfg-br-ex ifcfg-enp12s0f6 ifdown-isdn ifdown-tunnel ifup-ovs ifup-TeamPort ifcfg-eno1.706 ifcfg-enp12s0f7 ifdown-ovs ifup ifup-plip ifup-tunnel ifcfg-enp0s29u1u1u5 ifcfg-lo ifdown-post ifup-aliases ifup-plusb ifup-wireless ifcfg-enp12s0f1 ifdown ifdown-ppp ifup-bnep ifup-post init.ipv6-global ifcfg-enp12s0f2.506 ifdown-bnep ifdown-routes ifup-eth ifup-ppp network-functions ifcfg-enp12s0f3 ifdown-eth ifdown-sit ifup-ippp ifup-routes network-functions-ipv6 ifcfg-enp12s0f4 ifdown-ippp ifdown-Team ifup-ipv6 ifup-sit ifcfg-enp12s0f5 ifdown-ipv6 ifdown-TeamPort ifup-isdn ifup-Team [root@f2lctr01 network-scripts]# [root@f2lctr01 network-scripts]# [root@f2lctr01 network-scripts]# cat ifcfg-br-ex DEFROUTE=yes ONBOOT=yes IPADDR=10.12.8.11 PREFIX=24 GATEWAY=10.12.8.254 DEVICE=br-ex NAME=br-ex DEVICETYPE=ovs OVSBOOTPROTO=static TYPE=OVSBridge [root@f2lctr01 network-scripts]# [root@f2lctr01 network-scripts]# [root@f2lctr01 network-scripts]# cat ifcfg-enp12s0f2.506 DEVICE=enp12s0f2.506 NAME=enp12s0f2.506 DEVICETYPE=ovs TYPE=OVSPort OVS_BRIDGE=br-ex ONBOOT=yes BOOTPROTO=none VLAN=yes

[root@f2lctr01 network-scripts]# ip r s default via 10.12.8.254 dev br-ex 10.10.205.0/24 dev eno1.706 proto kernel scope link src 10.10.205.19 10.12.8.0/24 dev br-ex proto kernel scope link src 10.12.8.11 169.254.0.0/16 dev eno1.706 scope link metric 1017 169.254.0.0/16 dev enp12s0f2.506 scope link metric 1021 169.254.0.0/16 dev br-ex scope link metric 1022

[root@f2lctr02 network-scripts]# ls ; cat ifcfg-br-ex ifcfg-br-ex ifcfg-enp12s0f4 ifdown-bnep ifdown-post ifdown-tunnel ifup-ipv6 ifup-ppp ifup-wireless ifcfg-eno1.706 ifcfg-enp12s0f5 ifdown-eth ifdown-ppp ifup ifup-isdn ifup-routes init.ipv6-global ifcfg-enp0s29u1u1u5 ifcfg-enp12s0f6 ifdown-ippp ifdown-routes ifup-aliases ifup-ovs ifup-sit network-functions ifcfg-enp12s0f1 ifcfg-enp12s0f7 ifdown-ipv6 ifdown-sit ifup-bnep ifup-plip ifup-Team network-functions-ipv6 ifcfg-enp12s0f2.506 ifcfg-lo ifdown-isdn ifdown-Team ifup-eth ifup-plusb ifup-TeamPort ifcfg-enp12s0f3 ifdown ifdown-ovs ifdown-TeamPort ifup-ippp ifup-post ifup-tunnel DEFROUTE=yes ONBOOT=yes IPADDR=10.12.8.12 PREFIX=24 GATEWAY=10.12.8.254 DEVICE=br-ex NAME=br-ex DEVICETYPE=ovs OVSBOOTPROTO=static TYPE=OVSBridge

[root@f2lctr02 network-scripts]# cat ifcfg-enp12s0f2.506 DEVICE=enp12s0f2.506 NAME=enp12s0f2.506 DEVICETYPE=ovs TYPE=OVSPort OVS_BRIDGE=br-ex ONBOOT=yes BOOTPROTO=none VLAN=yes

[root@f2lctr02 network-scripts]# ip r s default via 10.12.8.254 dev br-ex 10.10.205.0/24 dev eno1.706 proto kernel scope link src 10.10.205.20 10.12.8.0/24 dev br-ex proto kernel scope link src 10.12.8.12 169.254.0.0/16 dev eno1.706 scope link metric 1022 169.254.0.0/16 dev enp12s0f2.506 scope link metric 1026 169.254.0.0/16 dev br-ex scope link metric 1027 [root@f2lctr02 network-scripts]#

[root@f2lcompute1 network-scripts]# ls ifcfg-br-ex ifcfg-enp12s0f4 ifdown-bnep ifdown-ovs ifdown-TeamPort ifup-ib ifup-plusb ifup-TeamPort ifcfg-eno1.706 ifcfg-enp12s0f5 ifdown-eth ifdown-post ifdown-tunnel ifup-ippp ifup-post ifup-tunnel ifcfg-enp0s29u1u1u5 ifcfg-enp12s0f6 ifdown-ib ifdown-ppp ifup ifup-ipv6 ifup-ppp ifup-wireless ifcfg-enp12s0f1 ifcfg-enp12s0f7 ifdown-ippp ifdown-routes ifup-aliases ifup-isdn ifup-routes init.ipv6-global ifcfg-enp12s0f2.506 ifcfg-lo ifdown-ipv6 ifdown-sit ifup-bnep ifup-ovs ifup-sit network-functions ifcfg-enp12s0f3 ifdown ifdown-isdn ifdown-Team ifup-eth ifup-plip ifup-Team network-functions-ipv6 [root@f2lcompute1 network-scripts]# cat ifcfg-br-ex DEFROUTE=yes ONBOOT=yes IPADDR=10.12.8.13 PREFIX=24 GATEWAY=10.12.8.254 DEVICE=br-ex NAME=br-ex DEVICETYPE=ovs OVSBOOTPROTO=static TYPE=OVSBridge [root@f2lcompute1 network-scripts]# [root@f2lcompute1 network-scripts]# [root@f2lcompute1 network-scripts]# [root@f2lcompute1 network-scripts]# cat ifcfg-br-ex DEFROUTE=yes ONBOOT=yes IPADDR=10.12.8.13 PREFIX=24 GATEWAY=10.12.8.254 DEVICE=br-ex NAME=br-ex DEVICETYPE=ovs OVSBOOTPROTO=static TYPE=OVSBridge

[root@f2lcompute1 network-scripts]# ip r s default via 10.12.8.254 dev br-ex 10.10.205.0/24 dev eno1.706 proto kernel scope link src 10.10.205.21 10.12.8.0/24 dev br-ex proto kernel scope link src 10.12.8.13 169.254.0.0/16 dev enp0s29u1u1u5 scope link metric 1010 169.254.0.0/16 dev eno1.706 scope link metric 1031 169.254.0.0/16 dev

enp12s0f2.506 scope link metric 1035 169.254.0.0/16 dev br-ex scope link metric 1036 169.254.95.0/24 dev enp0s29u1u1u5 proto kernel scope link src 169.254.95.120

[root@f2lcompute2 network-scripts]# ls ifcfg-br-ex ifcfg-lo ifdown-ppp ifup-ib ifup-sit ifcfg-eno1.706 ifdown ifdown-routes ifup-ippp ifup-Team ifcfg-enp0s29u1u1u5 ifdown-bnep ifdown-sit ifdown-ipv6 ifup-TeamPort ifcfg-enp12s0f1 ifdown-eth ifdown-Team ifup-isdn ifup-tunnel ifcfg-enp12s0f2.506 ifdown-ib ifdown-TeamPort ifup-ovs ifup-wireless ifcfg-enp12s0f3 ifdown-ippp ifdown-tunnel ifup-plip init.ipv6-global ifcfg-enp12s0f4 ifdown-ipv6 ifup ifup-plusb network-functions ifcfg-enp12s0f5 ifdown-isdn ifup-aliases ifup-post network-functions-ipv6 ifcfg-enp12s0f6 ifdown-ovs ifup-bnep ifup-ppp ifcfg-enp12s0f7 ifdown-post ifup-eth ifup-routes [root@f2lcompute2 network-scripts]# cat ifcfg-br-ex DEFROUTE=yes ONBOOT=yes IPADDR=10.12.8.14 PREFIX=24 GATEWAY=10.12.8.254 DEVICE=br-ex NAME=br-ex DEVICETYPE=ovs OVSBOOTPROTO=static TYPE=OVSBridge [root@f2lcompute2 network-scripts]# [root@f2lcompute2 network-scripts]# [root@f2lcompute2 network-scripts]# cat ifcfg-enp12s0f2.506 DEVICE=enp12s0f2.506 NAME=enp12s0f2.506 DEVICETYPE=ovs TYPE=OVSPort OVS_BRIDGE=br-ex ONBOOT=yes BOOTPROTO=none VLAN=yes

[root@f2lcompute2 network-scripts]# ip r s default via 10.12.8.254 dev br-ex 10.10.205.0/24 dev eno1.706 proto kernel scope link src 10.10.205.23 10.12.8.0/24 dev br-ex proto kernel scope link src 10.12.8.14 169.254.0.0/16 dev eno1.706 scope link metric 1016 169.254.0.0/16 dev enp12s0f2.506 scope link metric 1020 169.254.0.0/16 dev br-ex scope link metric 1021

[root@f2lcompute3 network-scripts]# ls ifcfg-br-ex ifcfg-lo ifdown-ppp ifup-ib ifup-sit ifcfg-eno1.706 ifdown ifdown-routes ifup-ippp ifup-Team ifcfg-enp0s29u1u1u5 ifdown-bnep ifdown-sit ifdown-ipv6 ifup-TeamPort ifcfg-enp12s0f1 ifdown-eth ifdown-Team ifup-isdn ifup-tunnel ifcfg-enp12s0f2.506 ifdown-ib ifdown-TeamPort ifup-ovs ifup-wireless ifcfg-enp12s0f3 ifdown-ippp ifdown-tunnel ifup-plip init.ipv6-global ifcfg-enp12s0f4 ifdown-ipv6 ifup ifup-plusb network-functions ifcfg-enp12s0f5 ifdown-isdn ifup-aliases ifup-post network-functions-ipv6 ifcfg-enp12s0f6 ifdown-ovs ifup-bnep ifup-ppp ifcfg-enp12s0f7 ifdown-post ifup-eth ifup-routes [root@f2lcompute3 network-scripts]# [root@f2lcompute3 network-scripts]# [root@f2lcompute3 network-scripts]# cat ifcfg-br-ex DEFROUTE=yes ONBOOT=yes IPADDR=10.12.8.15 PREFIX=24 GATEWAY=10.12.8.254 DEVICE=br-ex NAME=br-ex DEVICETYPE=ovs OVSBOOTPROTO=static TYPE=OVSBridge [root@f2lcompute3 network-scripts]# [root@f2lcompute3 network-scripts]# [root@f2lcompute3 network-scripts]# cat ifcfg-enp12s0f2.506 DEVICE=enp12s0f2.506 NAME=enp12s0f2.506 DEVICETYPE=ovs TYPE=OVSPort OVS_BRIDGE=br-ex ONBOOT=yes BOOTPROTO=none VLAN=yes

[root@f2lcompute3 network-scripts]# ip r s default via 10.12.8.254 dev br-ex 10.10.205.0/24 dev eno1.706 proto kernel scope link src 10.10.205.24 10.12.8.0/24 dev br-ex proto kernel scope link src 10.12.8.15 169.254.0.0/16 dev eno1.706 scope link metric 1016 169.254.0.0/16 dev enp12s0f2.506 scope link metric 1020 169.254.0.0/16 dev br-ex scope link metric 1021

issues

flushing device ethernet ip addr flush dev enp12s0f2.406 flushing routing echo 1 > /proc/sys/net/ipv4/flush