Performing OpenStack KVM Post-Installation Tasks

This section contains the following topics:

Removing Anti-Spoofing Rules for CSR 1000V Data Interfaces

For hosts running OVS-based OpenStack, a situation exists that affects all devices with routing functionality, such as CSR 1000V VMs.

In this situation, the OVS Quantum plugin enters anti-spoofing entries for each vNIC of the VM. For each vNIC interface, two iptables entries must be removed to enable ANY-ANY routing for CSR 1000V VM services.

Perform the following procedure:

- On the compute node on which the CSR 1000V VM is running.

- Each time a CSR 1000V VM is migrated to another compute node.

Procedure

Step 1   Display iptables entries by entering the following command:

```
iptables -L --line-numbers
```

The output should resemble the following:

```
Chain quantum-openvswi-oc43a12ff-e (2 references)
Chain quantum-openvswi-oc4ea12ff-e (2 references)
num  target   prot  opt source          destination
1    DROP     all  --  anywhere         anywhere        MAC ! FA:16:3E:16:6E:EE
2    RETURN   udp  --  anywhere         anywhere        udp spt:bootpc dpt:bootps
3    DROP     all  --  !193.1.1.6        anywhere
```

```
4    DROP     udp  --  anywhere      anywhere     udp spt:bootps dpt:bootpc
5    DROP     all  --  anywhere      anywhere     state INVALID
6    RETURN   all  --  anywhere      anywhere     state RELATED,ESTABLISHED
7    RETURN   all  --  anywhere      anywhere
8    quantum-openvswi-sg-fallback  all  --  anywhere     anywhere
```

Step 2 In the output, locate the iptable rule chains that contain the CSR 1000V data interface IP address and MAC address.
In the example, DROP rules 1 and 3 are for a CSR 1000V with the MAC address FA:16:3E:16:6E:EE and the IP address 193.1.1.6.

Step 3 Remove the first DROP rule by entering the following command:
`iptables -D` *chain-name rule-num*

Step 4 Enter the following command to refresh the list of rules:
`iptables -L --line-numbers`
Note   Entering this command after removing an entry helps ensure that you delete the correct entry with the next command.

Step 5 In the output, identify the next rule to be deleted, and repeat Steps 3 and 4.

Configuring Connectivity with OpenStack KVM

After installing Prime Network Services Controller, configure Prime Network Services Controller so that it can communicate with the Virtual Machine Manager (VMM) for that hypervisor and the VMs that Prime Network Services Controller will manage. Prime Network Services Controller communicates with the VMM to perform the following actions on the VMs that it manages:

- Obtain the VM attributes that Prime Network Services Controller uses for VM management.

- Instantiate, start, stop, restart, or delete VMs.

- Map VM network interfaces.

- Instantiate and configure services on service VMs.

Before You Begin

Obtain the OpenStack admin or superuser username and password for OpenStack access.

Procedure

Step 1 Choose **Resource Management > VM Managers**, and then click **Add VM Manager**.

Step 2 In the Add VM Manager dialog box, add the required information as described in the following table, and then click **OK**.

Field	Description
Name	VMM name.
Description	VMM description.

Field	Description
Service Tenant	Name of the OpenStack project that can be used for network services and the management network. **Note** This feature is not supported in Prime Network Services Controller 3.4.
Hostname / IP Address	Hostname or IP address of the OpenStack controller.
Secure	Check the check box to use HTTPS for connections between Prime Network Services Controller and OpenStack. Prime Network Services Controller uses HTTPS for communications with OpenStack by default. Uncheck the check box to use HTTP for connections between Prime Network Services Controller and OpenStack.
Domain Name / Username	OpenStack admin or superuser username.
Password	OpenStack admin or superuser password.
Port Number	Port number of the Keystone service running on the OpenStack controller.

A successfully added VMM is displayed with the following information:

- Admin State of *enable*.
- Operational State of *up*.