安装和配置控制器节点

« (environment-networking-verify-rdo.html) » (controller-install-option1-rdo.html) (https://bugs.launchpad.net/neutron/+filebug?field.title=Install%20and%20configure%20controller%20node%20in%20Neutron&field.comment=%0A%0A%0AThis bug tracker is for errors with the documentation, use the following as a template and remove or add fields as you see fit. Convert [ ] into [x] to check boxes:%0A%0A- [ ] This doc is inaccurate in this way: _____%0A- [ ] This is a doc addition request.%0A- [ ] I have a fix to the document that I can paste below including example: input and output. %0A%0AIf you have a troubleshooting or support issue, use the following resources:%0A%0A - Ask OpenStack: http://ask.openstack.org%0A - The mailing list: http://lists.openstack.org%0A - IRC: 'openstack' channel on Freenode%0A%0A----------%0ARelease:%2012.0.1.dev11%20on%202018-03-07%2021:05%0ASHA:%2043df2709acbdce86686a40b75fd34e96880427d0%0ASource:%20https://git.openstack.org/cgit/openstack/neutron/tree/doc/source/install/controller-install-rdo.rst%0AURL: https://docs.openstack.org/neutron/queens/install/controller-install-rdo.html&field.tags=doc)

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先决条件¶

在配置OpenStack Networking（neutron）服务之前，您必须创建数据库，服务凭据和API端点。

1. 要创建数据库，请完成以下步骤：
   - 使用数据库访问客户端以**root**用户身份连接到数据库服务器：

     ```
     $ mysql -u root -p
     ```

   - 创建**neutron**数据库：

     ```
     MariaDB [（none）] CREATE DATABASE neutron;
     ```

   - 授予对**neutron**数据库的正确访问权限，并替换 **NEUTRON_DBPASS**为合适的密码：

     ```
     MariaDB [（none）]>
       授予
     neutron所有特权。* to'neutron' @'localhost'\ IDENTIFIED BY'NEUTRON_DBPASS'; MariaDB [（none）]>
       授予neutron所有特权。* TO'neutron' @'％'\ IDENTIFIED BY'NEUTRON_DBPASS';
     ```

   - 退出数据库访问客户端。
2. 来源**admin**凭据来访问仅管理员CLI命令：

   ```
   $。管理员-OpenRC的
   ```

3. 要创建服务凭据，请完成以下步骤：
   - 创建**neutron**用户：

     ```
     $ openstack user create --domain default --password-prompt neutron

     User Password:
     Repeat User Password:
     +---------------------+----------------------------------+
     | Field               | Value                            |
     +---------------------+----------------------------------+
     | domain_id           | default                          |
     | enabled             | True                             |
     | id                  | fdb0f541e28141719b6a43c8944bf1fb |
     | name                | neutron                          |
     | options             | {}                               |
     | password_expires_at | None                             |
     +---------------------+----------------------------------+
     ```

   - Add the **admin** role to the **neutron** user:

     ```
     $ openstack role add --project service --user neutron admin
     ```

     > **Note**
     >
     > This command provides no output.

   - Create the **neutron** service entity:

```
$ openstack service create --name neutron \
  --description "OpenStack Networking" network

+-------------+----------------------------------+
| Field       | Value                            |
+-------------+----------------------------------+
| description | OpenStack Networking             |
| enabled     | True                             |
| id          | f71529314dab4a4d8eca427e701d209e |
| name        | neutron                          |
| type        | network                          |
+-------------+----------------------------------+
```

4. Create the Networking service API endpoints:

```
$ openstack endpoint create --region RegionOne \
  network public http://controller:9696

+--------------+----------------------------------+
| Field        | Value                            |
+--------------+----------------------------------+
| enabled      | True                             |
| id           | 85d80a6d02fc4b7683f611d7fc1493a3 |
| interface    | public                           |
| region       | RegionOne                        |
| region_id    | RegionOne                        |
| service_id   | f71529314dab4a4d8eca427e701d209e |
| service_name | neutron                          |
| service_type | network                          |
| url          | http://controller:9696           |
+--------------+----------------------------------+

$ openstack endpoint create --region RegionOne \
  network internal http://controller:9696

+--------------+----------------------------------+
| Field        | Value                            |
+--------------+----------------------------------+
| enabled      | True                             |
| id           | 09753b537ac74422a68d2d791cf3714f |
| interface    | internal                         |
| region       | RegionOne                        |
| region_id    | RegionOne                        |
| service_id   | f71529314dab4a4d8eca427e701d209e |
| service_name | neutron                          |
| service_type | network                          |
| url          | http://controller:9696           |
+--------------+----------------------------------+

$ openstack endpoint create --region RegionOne \
  network admin http://controller:9696

+--------------+----------------------------------+
| Field        | Value                            |
+--------------+----------------------------------+
| enabled      | True                             |
| id           | 1ee14289c9374dffb5db92a5c112fc4e |
| interface    | admin                            |
| region       | RegionOne                        |
| region_id    | RegionOne                        |
| service_id   | f71529314dab4a4d8eca427e701d209e |
| service_name | neutron                          |
| service_type | network                          |
| url          | http://controller:9696           |
+--------------+----------------------------------+
```

Configure networking options¶

You can deploy the Networking service using one of two architectures represented by options 1 and 2.

Option 1 deploys the simplest possible architecture that only supports attaching instances to provider (external) networks. No self-service (private) networks, routers, or floating IP addresses. Only the **admin** or other privileged user can manage provider networks.

Option 2 augments option 1 with layer-3 services that support attaching instances to self-service networks. The **demo** or other unprivileged user can manage self-service networks including routers that provide connectivity between self-service and provider networks. Additionally, floating IP addresses provide connectivity to instances using self-service networks from external networks such as the Internet.

Self-service networks typically use overlay networks. Overlay network protocols such as VXLAN include additional headers that increase overhead and decrease space available for the payload or user data. Without knowledge of the virtual network infrastructure, instances attempt to send packets using the default Ethernet maximum transmission unit (MTU) of 1500 bytes. The Networking service automatically provides the correct MTU value to instances via DHCP. However, some cloud images do not use DHCP or ignore the DHCP MTU option and require configuration using metadata or a script.

> **Note**
>
> Option 2 also supports attaching instances to provider networks.

Choose one of the following networking options to configure services specific to it. Afterwards, return here and proceed to Configure the metadata agent.

- Networking Option 1: Provider networks (controller-install-option1-rdo.html)
- Networking Option 2: Self-service networks (controller-install-option2-rdo.html)

Configure the metadata agent¶

The metadata agent provides configuration information such as credentials to instances.

- Edit the **/etc/neutron/metadata_agent.ini** file and complete the following actions:
  - In the **[DEFAULT]** section, configure the metadata host and shared secret:

```
[DEFAULT]
# ...
nova_metadata_host = controller
metadata_proxy_shared_secret = METADATA_SECRET
```

    Replace **METADATA_SECRET** with a suitable secret for the metadata proxy.

Configure the Compute service to use the Networking service¶

> **Note**
>
> The Nova compute service must be installed to complete this step. For more details see the compute install guide found under the *Installation Guides* section of the docs website (https://docs.openstack.org).

- Edit the **/etc/nova/nova.conf** file and perform the following actions:
  - In the **[neutron]** section, configure access parameters, enable the metadata proxy, and configure the secret:

```
[neutron]
# ...
url = http://controller:9696
auth_url = http://controller:35357
auth_type = password
project_domain_name = default
user_domain_name = default
region_name = RegionOne
project_name = service
username = neutron
password = NEUTRON_PASS
service_metadata_proxy = true
metadata_proxy_shared_secret = METADATA_SECRET
```

    Replace **NEUTRON_PASS** with the password you chose for the **neutron** user in the Identity service.

    Replace **METADATA_SECRET** with the secret you chose for the metadata proxy.

Finalize installation¶

1. The Networking service initialization scripts expect a symbolic link **/etc/neutron/plugin.ini** pointing to the ML2 plug-in configuration file, **/etc/neutron/plugins/ml2/ml2_conf.ini**. If this symbolic link does not exist, create it using the following command:

```
# ln -s /etc/neutron/plugins/ml2/ml2_conf.ini /etc/neutron/plugin.ini
```

2. Populate the database:

```
# su -s /bin/sh -c "neutron-db-manage --config-file /etc/neutron/neutron.conf \
  --config-file /etc/neutron/plugins/ml2/ml2_conf.ini upgrade head" neutron
```

> **Note**
>
> Database population occurs later for Networking because the script requires complete server and plug-in configuration files.

3. Restart the Compute API service:

```
# systemctl restart openstack-nova-api.service
```

4. Start the Networking services and configure them to start when the system boots.

   For both networking options:

```
# systemctl enable neutron-server.service \
  neutron-linuxbridge-agent.service neutron-dhcp-agent.service \
  neutron-metadata-agent.service
# systemctl start neutron-server.service \
  neutron-linuxbridge-agent.service neutron-dhcp-agent.service \
  neutron-metadata-agent.service
```

   For networking option 2, also enable and start the layer-3 service:

```
# systemctl enable neutron-l3-agent.service
# systemctl start neutron-l3-agent.service
```

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OpenStack文档

Neutron 12.0.1

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