
networking-ofagent Documentation

Release 1

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What's this

This is OpenStack/Networking (Neutron) “ofagent” ML2 driver and its agent.

Installation

For how to install/set up ML2 mechanism driver for OpenFlow Agent, please refer to <https://github.com/osrg/ryu/wiki/OpenStack>

Notes for updating from Icehouse

OVS.bridge_mappings is deprecated for ofagent. It was removed in Kilo. Please use AGENT.physical_interface_mappings instead. To mimic an existing setup with bridge_mapping, you can create a veth pair, link one side of it to the bridge, and then specify the other side in physical_interface_mappings. For example, if you have the following:

```
[OVS]
bridge_mappings=public:br-ex
```

You can do:

```
# ip link add int-public type veth peer name phy-public
# ip link set int-public up
# ip link set phy-public up
# ovs-vsctl add-port br-ex phy-public
```

and then replace the bridge_mappings with:

```
[AGENT]
physical_interface_mappings=public:int-public
```

After Icehouse, most of the functionality have been folded into a single bridge, the integration bridge. (aka. br-int) The integration bridge is the only bridge which would have an OpenFlow connection to the embedded controller in ofagent now.

- ofagent no longer uses a separate bridge for tunneling. Please remove br-tun if you have one:

```
# ovs-vsctl del-br br-tun
```

- ofagent no longer acts as an OpenFlow controller for physical bridges. Please remove set-controller configuration from your physical bridges:

```
# ovs-vsctl del-controller ${PHYSICAL_BRIDGE}
```

The support of ancillary bridges has been removed after Icehouse. While you can still use these bridges to provide connectivity, neutron-ofagent-agent no longer reports port state changes (up/down) for these bridges. If it is a problem for you, please consider tweaking your configuration to avoid using ancillary bridges. We recommend to use a provider network instead as the following:

- Make l3-agent external_network_bridge configuration empty:

```
[DEFAULT]
external_network_bridge=
```

- (Re-)create a network (and subnet) for public connectivity with a flat provider network:

```
neutron net-create $PUBLIC_NETWORK -- \
  --router:external=True \
  --provider:network_type:flat \
  --provider:physical_network=$PUBLIC_PHYSICAL_NETWORK
```

- Associate your neutron router to the above network:

```
neutron router-gateway-clear $ROUTER_ID
neutron router-gateway-set $ROUTER_ID $PUBLIC_NETWORK
```

- Add the corresponding entry to bridge_mappings:

```
[OVS]
bridge_mappings=$PUBLIC_PHYSICAL_NETWORK:$PUBLIC_BRIDGE
```

The port naming scheme for ofagent has been changed after Icehouse. If you are using security groups, you should switch `firewall_driver` accordingly.

From:

```
[securitygroup]
firewall_driver=neutron.agent.linux.iptables_firewall.OVSHybridIptablesFirewallDriver
```

To:

```
[securitygroup]
firewall_driver=neutron.agent.linux.iptables_firewall.IptablesFirewallDriver
```

External Resources

4.1 Neutron/OFAgent on OpenStack wiki

<https://wiki.openstack.org/wiki/Neutron/OFAgent>

4.2 Ryu

OFAgent uses Ryu ofproto library to communicate with the local switch.

For general Ryu stuff, please refer to <http://osrg.github.io/ryu/>

Ryu is available at github [git://github.com/osrg/ryu](https://github.com/osrg/ryu) [git https://github.com/osrg/ryu](https://github.com/osrg/ryu)

The mailing is at ryu-devel@lists.sourceforge.net <https://lists.sourceforge.net/lists/listinfo/ryu-devel>

Enjoy!

Indices and tables

- *genindex*
- *modindex*
- *search*

6.1 Developer Guide

6.1.1 Release procedure

Release Procedure

1. Create a signed tag for the new release and push it to gerrit ¹ . Infra machinery will take care of the rest and automatically upload the release to PyPI.
2. Bump the version in setup.cfg. This step effectively opens the development for the next release.
3. Tweak requirements.txt ² in neutron tree if necessary.

¹ <http://docs.openstack.org/infra/manual/creators.html#tagging-a-release>

² <http://git.openstack.org/cgit/openstack/neutron/tree/neutron/plugins/ml2/drivers/ofagent/requirements.txt>