
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*