NetVirt: Using VPN Service

Using The "New NetVirt" with OpenStack

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This wiki documents an approach for using The new NetVirt, which is based on the VPN Service code. This document is essentially a way to run the OVSDB Tutorial using the odl-netvirt-openstack feature as a replacement for the odl-ovsdb-openstack feature. These instructions currently assume an external OpenDaylight controller as opposed to an all-in-one config.

NOTE: I started with the instructions given on the NetVirt: L2Gateway HowTo, but I'm not using the L2Gateway feature, and these instructions include a few more details.

Prerequisites (Getting the Environment)

1. Use the NetVirt Demo VMs from here:

   Getting Started with OpenDaylight OVSDB Plugin Network Virtualization

   Use the following:

   ovsdbtutorial_mitaka_boron_external.ova OpenStack Mitaka, OpenDaylight Boron (160630), external:

2. Import the ova file into VirtualBox

3. Get a version of the OpenDaylight controller with the vpnservice NetVirt code

   Pull the latest Netvirt code and compile it.

   git clone https://git.opendaylight.org/gerrit/netvirt.git
   cd netvirt
   mvn clean install

Running VPN Service NetVirt

1. Launch karaf

   ~/git/netvirt/vpnservice/distribution/karaf/target/assembly/bin/karaf

   (Update path based on where you cloned the netvirt repo above.)

2. Install the feature

   feature:install odl-netvirt-openstack

3. Start router, odl31 and odl32 VMs you got above (if you haven’t already)

   IMPORTANT: When using odl-netvirt-openstack with devstack, you must modify the local.conf files in both odl31 and odl32 by commenting out the following line:

   #ODL_L3=True

4. Stack both odl31 and odl32

   cd /opt/devstack
   ./stack.sh

5. Transport Zone

   Originally, it was necessary to manually create "transport zones" to carry the traffic between nodes. For VXLAN, a transport zone essentially defines a set of tunnels connecting the appropriate nodes. However, support has been added to automatically create transport zones as needed. By default, "use-transport-zone" is set to true.

   NOTE: As of 8/11/16, I have not been able to verify the auto transport zone/tunnel creation.

5.1 Optional Manual Transport Zone Configuration

   TODO: Define steps to disable auto transport zone creation.

   See L2Gateway HowTo for instructions and/or use postman collection in netvirt/resources/commons/VPN-Service-NetVirt.postman_collection.json

   If using the postman collection, use "Get DPID’s" to get the datapath ids.

   You can figure out which dpid is which by running the following command on each vm:
sudo ovs-vsctl show

Then compare the UUID at the top of the command output to the UUID's associated with the DPID's from the Get DPID's request.

Then, use the DPIDs for the br-int's in the "Create TZA" request.

   ../tools/os_doitall.sh

7. Test It

   ssh to one of the vms created
   source openrc admin admin
   ../tools/os_ssh.sh 10.100.5.3
   ping the other:
   ping 10.100.5.4

   ping an external address to test floating IP support:
   ping www.google.com  (Note: this isn't working as of the writing of this wiki).

Note: To cleanup state between runs, do the following:

shutdown karaf
shutdown -f
reset karaf

(Update path based on where you cloned the netvirt repo above.)