

```
[root@nfvdemoctrl01 neutron(keystone_admin)]# pwd
/etc/neutron
[root@nfvdemoctrl01 neutron(keystone_admin)]# ls
api-paste.ini  dhcp_agent.ini  l3_agent.ini  metadata_agent.ini  neutron_lbaas.conf  plugins  rootwrap.conf  services_lbaas.conf
conf.d         fwaas_driver.ini  lbaas_agent.ini  neutron.conf        plugin.ini  policy.json  services
[root@nfvdemoctrl01 neutron(keystone_admin)]# ls -al plugin.ini
lrwxrwxrwx. 1 root root 37 Apr  4 19:46 plugin.ini -> /etc/neutron/plugins/ml2/ml2_conf.ini
```

```
[root@nfvdemoctrl01 neutron(keystone_admin)]# cat plugin.ini |grep -v ^# |grep -v ^$
[ml2]
type_drivers = vlan,flat
tenant_network_types = vlan
mechanism_drivers = openvswitch
extension_drivers = port_security
[ml2_type_flat]
flat_networks = physnet2,physnet3
[ml2_type_vlan]
network_vlan_ranges =physnet1:200:4000
[ml2_type_gre]
[ml2_type_vxlan]
[securitygroup]
enable_security_group = True
[ovs]
[root@nfvdemoctrl01 neutron(keystone_admin)]# cat plugins/openvswitch/ovs_neutron_plugin.ini |grep -v ^# |grep -v ^$
[ovs]
integration_bridge = br-int
bridge_mappings =physnet1:br-tenant
enable_tunneling=False
[agent]
polling_interval = 2
l2_population = False
arp_responder = False
enable_distributed_routing = False
[securitygroup]
firewall_driver = neutron.agent.linux.iptables firewall.OVSHybridIptablesFirewallDriver
[root@nfvdemoctrl01 neutron(keystone_admin)]#
```

```

Bridge br-tenant
  Port "em2"
    Interface "em2"
  Port phy-br-tenant
    Interface phy-br-tenant
      type: patch
      options: {peer=int-br-tenant}
  Port br-tenant
    Interface br-tenant
      type: internal
Bridge br-int
  fail_mode: secure
  Port "tape551a6a8-31"
    tag: 2
    Interface "tape551a6a8-31"
      type: internal
  Port int-br-tenant
    Interface int-br-tenant
      type: patch
      options: {peer=phy-br-tenant}
  Port br-int
    Interface br-int
      type: internal
  Port "tap72d57793-31"
    tag: 3
    Interface "tap72d57793-31"
      type: internal
  Port "tapdc453ee2-b4"
    tag: 1
    Interface "tapdc453ee2-b4"
      type: internal

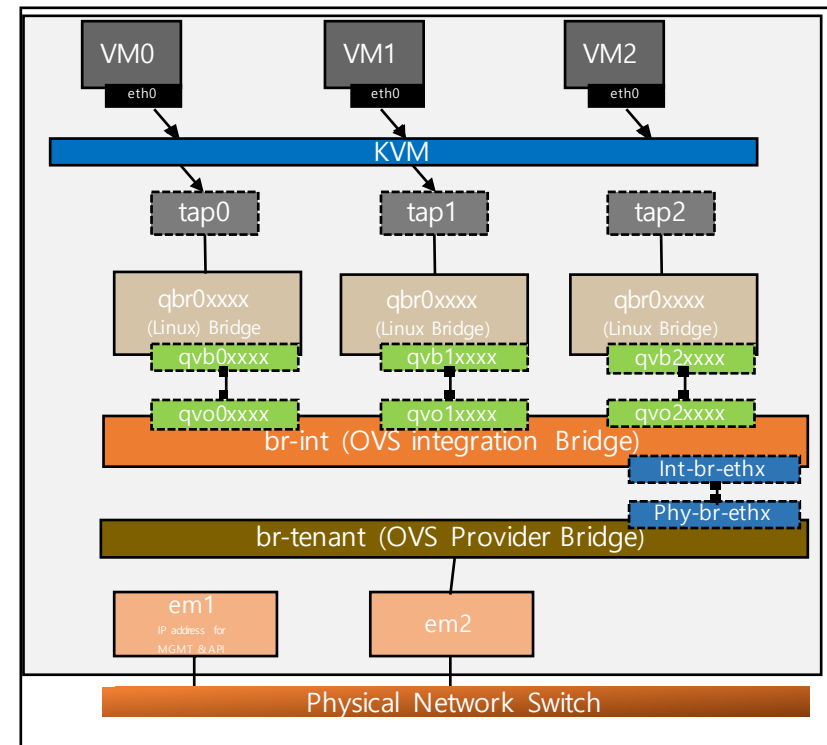
```

```

ovs-vsctl add-br br-tenant
ovs-vsctl add-port br-tenant em2

```

- 탭 인터페이스 : tapXXXX
- 리눅스 브릿지 : qbryyyy
- Veth 페어 : qvbyyyy, qvoyyyy
- OVS 통합 브릿지 : br-int
- OVS 패치 포트 : int-br-tenant, phy-br-tenant
- OVS 프로바이더 브릿지 : br-tenant
- 물리 인터페이스 : em2



```

[root@nfvdemoctrl01 neutron]# ovs-ofctl dump-flows br-int
NXST_FLOW reply (xid=0x4):
 cookie=0x0, duration=3226.050s, table=0, n_packets=67, n_bytes=5972, idle_age=1061, priority=3,in_port=13,dl_vlan=253 actions=mod_vlan_vid:2,NORMAL
 cookie=0x0, duration=3225.958s, table=0, n_packets=0, n_bytes=0, idle_age=3225, priority=3,in_port=13,dl_vlan=212 actions=mod_vlan_vid:3,NORMAL
 cookie=0x0, duration=3229.721s, table=0, n_packets=96878, n_bytes=9032684, idle_age=0, priority=2,in_port=13 actions=drop
 cookie=0x0, duration=3229.805s, table=0, n_packets=66, n_bytes=5620, idle_age=1061, priority=1 actions=NORMAL
 cookie=0x0, duration=3229.801s, table=23, n_packets=0, n_bytes=0, idle_age=3229, priority=0 actions=drop
[root@nfvdemoctrl01 neutron]# ovs-ofctl dump-flows br-tenatn
ovs-ofctl: br-tenatn is not a bridge or a socket
[root@nfvdemoctrl01 neutron]# ovs-ofctl dump-flows br-tenant
NXST_FLOW reply (xid=0x4):
 cookie=0x0, duration=3287.053s, table=0, n_packets=66, n_bytes=5620, idle_age=1122, priority=4,in_port=2,dl_vlan=2 actions=mod_vlan_vid:253,NORMAL
 cookie=0x0, duration=3286.961s, table=0, n_packets=0, n_bytes=0, idle_age=3286, priority=4,in_port=2,dl_vlan=3 actions=mod_vlan_vid:212,NORMAL
 cookie=0x0, duration=3290.714s, table=0, n_packets=0, n_bytes=0, idle_age=3290, priority=2,in_port=2 actions=drop
 cookie=0x0, duration=3290.775s, table=0, n_packets=101636, n_bytes=9722537, idle_age=0, priority=1 actions=NORMAL

```

VM내부의 vlan 태그값을 br-int로 가면서 내부의 태그값으로 변경한다.