

EVPN ARP/ND Suppression

ARP Suppression will help to reply the arp request if the arp exist in arp table. It could help to save the needless arp traffic.

ARP Suppression with SAG running on vxlan service

Topology:

mceclip0.png

Procedure:

Step 1. Init FRR and set the loopback interface(reference Management port and front port ipv4/ipv6 and FRR init)

Step 2. Create the Vlan and ip binding as topology

ND1:

```
admin@sonic:~$ sudo config vlan add 100
admin@sonic:~$ sudo config vlan member add -u 100 Ethernet0
admin@sonic:~$ sudo config interface ip add Vlan100 192.168.100.11/24
admin@sonic:~$ sudo config interface ip add Ethernet56 10.0.0.0/31
```

ND2:

```
admin@sonic:~$ sudo config vlan add 100
admin@sonic:~$ sudo config vlan member add 100 Ethernet0
admin@sonic:~$ sudo config interface ip add Vlan100 192.168.100.12/24
admin@sonic:~$ sudo config interface ip add Ethernet56 10.0.0.1/31
```

Step 3. Create Vxlan interface

ND1:

```
admin@sonic:~$ sudo config vxlan add vtep 1.1.1.1
admin@sonic:~$ sudo config vxlan evpn_nvo add nvo vtep
admin@sonic:~$ sudo config vxlan map add vtep 100 100
```

ND2:

```
admin@sonic:~$ sudo config vxlan add vtep 2.2.2.2
admin@sonic:~$ sudo config vxlan evpn_nvo add nvo vtep
admin@sonic:~$ sudo config vxlan map add vtep 100 100
```

Step 4. Enable ARP/ND suppress

ND1 and ND2:

```
admin@sonic:~$ sudo config neigh-suppress vlan 100 on
```

Step 5. Set the EVPN on FRR.

ND1:

```
sonic# configure
sonic(config)# router bgp 65100
sonic(config-router)# neighbor 10.0.0.1 remote-as internal
sonic(config-router)# bgp router-id 1.1.1.1
sonic(config-router)# address-family ipv4
sonic(config-router-af)# redistribute connected
sonic(config-router-af)# exit
sonic(config-router)# address-family l2vpn evpn
sonic(config-router-af)# advertise-all-vni
sonic(config-router-af)# neighbor 10.0.0.1 activate
```

ND2:

```
sonic# configure
sonic(config)# router bgp 65100
sonic(config-router)# neighbor 10.0.0.0 remote-as internal
sonic(config-router)# bgp router-id 2.2.2.2
```

```
sonic(config-router)# address-family ipv4
sonic(config-router-af)# redistribute connected
sonic(config-router-af)# exit
sonic(config-router)# address-family l2vpn evpn
sonic(config-router-af)# advertise-all-vni
sonic(config-router-af)# neighbor 10.0.0.0 activate
Step 6. Check the neighbor suppress
```

ND1:

```
admin@sonic:~$ show neigh-suppress vlan 100
+-----+-----+-----+
| VLAN   | STATUS   | ASSOCIATED_NETDEV |
+=====+=====+=====+
| Vlan100 | Configured | vtep-100          |
+-----+-----+-----+
```

ND2:

```
admin@sonic:~$ show neigh-suppress vlan 100
+-----+-----+-----+
| VLAN   | STATUS   | ASSOCIATED_NETDEV |
+=====+=====+=====+
| Vlan100 | Configured | vtep-100          |
+-----+-----+-----+
```

Step 7. Ping from Switch#1 to ND1

Step 8. Ping from Switch#2 to Switch1, we can't find arp request between Switch#1 from Switch#2. The ND2 will reply the arp request.