Open Infrastructure - Task #7201

Task # 7178 (In Progress): Replace routers: router1.place5, router2.place5, router1.place6, router2.place6

Test BGP based virtual ip

10/02/2019 06:39 PM - Nico Schottelius

Status:	In Progress	**Start date:**	10/02/2019
Priority:	Normal	**Due date:**	
Assignee:	Nico Schottelius	**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:			
PM Check date:			

Description

- IP on dummy/loopback
- Announced /128 via bgp

History

#1 - 10/03/2019 01:20 PM - Nico Schottelius

```
router1:~# ip addr add 2a0a:e5c0:100::4242/128 dev lo
```

- bird:

```
filter router1sane {
    if(net ~ [ 2a0a:e5c0:100::/40+ ]) then {
        accept;
    }
    reject;
}

protocol direct  {
    interface "dummy0";

#     ipv4 {
#       import filter from_loopback;
#       export none;
#     };

     ipv6 {
       import filter from_loopback;
       export none;
     };
 }
```

interfaces:

```
auto dummy0
iface dummy0 inet manual
    up ip link add $IFACE type dummy
    up ip link set $IFACE up
    down ip link del $IFACE type dummy
    post-up ip addr add 2a0a:e5c0:100::4242/128 dev $IFACE
```

#2 - 10/03/2019 04:30 PM - Nico Schottelius

The commands in the previous comment are enough to enable the IP address **globally**. However, it is not enough for enabling it **locally**, as the NDP process does not work without the switches knowing how to access it.

Checking switches:

```
 B    2a0a:e5c0:2:5::4242/128 [200/0]
       via 2a0a:e5c0:1:8:714a:8de7:67ca:7284, Vlan8
```

The router is actually receiving the NDP query:

```
16:43:17.121249 IP6 2a0a:e5c0:2:5:70c2:d35d:93a0:e367 > ff02::1:ff00:4242: ICMP6, neighbor solicitation, who h
```

```
as 2a0a:e5c0:2:5::4242, length 32
```

However router1.place6 does not answer it (likely due to being on the wrong interface)

Then again, the switches can reach the ipv6 address:

```
[admin@switch5-place6 ~]$ ping6 2a0a:e5c0:2:5::4242
PING 2a0a:e5c0:2:5::4242(2a0a:e5c0:2:5::4242) 56 data bytes
64 bytes from 2a0a:e5c0:2:5::4242: icmp_seq=1 ttl=64 time=0.379 ms
64 bytes from 2a0a:e5c0:2:5::4242: icmp_seq=2 ttl=64 time=0.250 ms
^C
--- 2a0a:e5c0:2:5::4242 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1000ms
rtt min/avg/max/mdev = 0.250/0.314/0.379/0.066 ms
[admin@switch5-place6 ~]$
```

- So the problem so far is that NDP is not reaching dummy0.
- If we setup the virtual IP address on the **real** interface (bond0.15), then likely DAD will prevent it from functioning, as it is assigned twice.