Subject: Quagga inside a VE
Posted by seanfulton on Sun, 10 Feb 2008 00:31:15 GMT
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I'm struggling to get quagga working inside a VE. I plan to use heartbeat to fail an IP address over to another VE on another host, so I can't set the IP/Routing info on the HN, it needs to be set inside the VE.

I plan to use heartbeat to pass services over to the backup VE, and use quagga to announce a route to a floating IP address that will be passed back and forth between the two VEs.

So far I have the VETH set up, and I can ping the IP address from the network and ping the network from the VE. The problem is in routing. I need to announce (via RIP) the route to my floating IP. I've installed Quagga and gotten it working--it runs--but for some reason, the routes are not being passed to the HN.

Any ideas?

sean

Subject: Re: Quagga inside a VE
Posted by seanfulton on Mon, 11 Feb 2008 12:35:29 GMT
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Here is some more info. Again, any help on this issue would be greatly appreciated:

I have set up an IP on eth0 inside the VE with a static route to it and am able to connect to it correctly, and from within the VE out to the internet, so all is working correctly from that perspective. Here is the problem:

I have quagga 99.9 inside the VE. It says it is announcing its routes via RIP over the eth0 link. using tcpdump -vvv on the host node (HN), I can actually see the RIP announcements coming over the pipe. Unfortunately, the routes are not being inserted into the routing table on the host node, and routes announced by the host node are not being picked up within the VE. The HN does not show any of the VE's routes in the log file or when doing sh ip ro, same with the VE. Forwarding is on on both the HN and VE.

Currently the IP address I am trying to announce is on eth0:1 inside the VE, but I have used lo:0 as well with no luck. Also, if I put a static route on the HN to a virtual IP address inside the VE, it works. It's just the RIP announcement that is not happening.

ripd.conf in VE:

interface eth0
no ip rip authentication mode

```
router rip
version 2
network 74.201.36.0/22
network 74.201.40.0/22
redistribute kernel
redistribute static
redistribute connected

zebra.conf in VE:
! Interface's description.
!
interface lo
! description test of desc.

interface eth0
     description ourlan
```

Relevant zebra.log on VE:
```
2008/02/10 09:20:34 RIP: update timer fire!
2008/02/10 09:20:34 RIP: SEND UPDATE to eth0 ifindex 5
2008/02/10 09:20:34 RIP: multicast announce on eth0
2008/02/10 09:20:34 RIP: update routes on interface eth0 ifindex 5
2008/02/10 09:20:34 RIP: rip_send_packet 74.201.38.7 > 224.0.0.9 (eth0)
2008/02/10 09:20:34 RIP: SEND to  224.0.0.9.520
2008/02/10 09:20:34 RIP: SEND RESPONSE version 2 packet size 44
2008/02/10 09:20:34 RIP:   0.0.0.0/0 -> 0.0.0.0 family 2 tag 0 metric 1
2008/02/10 09:20:34 RIP:   74.201.40.7/32 -> 0.0.0.0 family 2 tag 0 metric 1
2008/02/10 09:20:34 RIP: multicast announce on eth0
2008/02/10 09:20:34 RIP: update routes on interface eth0 ifindex 5
2008/02/10 09:20:34 RIP: rip_send_packet 74.201.40.7 > 224.0.0.9 (eth0)
2008/02/10 09:20:34 RIP: SEND to  224.0.0.9.520
2008/02/10 09:20:34 RIP: SEND RESPONSE version 2 packet size 44
2008/02/10 09:20:34 RIP:   0.0.0.0/0 -> 0.0.0.0 family 2 tag 0 metric 1
2008/02/10 09:20:34 RIP:   74.201.38.7/32 -> 0.0.0.0 family 2 tag 0 metric 1
2008/02/10 09:20:34 RIP: ignore packet comes from myself
2008/02/10 09:20:34 RIP: ignore packet comes from myself
```

ripd.conf on the HN:
```
interface eth0
! no ip rip split-horizon
no ip rip authentication mode
!
interface eth1
! no ip rip split-horizon
no ip rip authentication mode
!
```

interface veth6007.0
no ip rip authentication mode

router rip
version 2
redistribute kernel
redistribute connected
redistribute static
 network 74.201.36.0/22
network 74.201.40.0/22
network eth0
network eth1
network veth6007.0
!
Output of tcpdump on the HN (You can see that it is getting the rip announcement OK.
[root@web1 ~]# tcpdump -vvv -i veth6007.0
tcpdump: WARNING: veth6007.0: no IPv4 address assigned
tcpdump: listening on veth6007.0, link-type EN10MB (Ethernet), capture size 96 bytes
09:23:10.883604 IP (tos 0x0, ttl   1, id 0, offset 0, flags [DF], proto: UDP (17), length: 72)
74.201.38.7.router > RIP2-ROUTERS.MCAST.NET.router: [udp sum ok]
    RIPv2, Response, length: 44, routes: 2
     AFI: IPv4:   0.0.0.0/0 , tag 0x0000, metric: 1, next-hop: self
     AFI: IPv4:   74.201.40.7/32, tag 0x0000, metric: 1, next-hop: self
    0x0000: 0202 0000 0002 0000 0000 0000 0000 0000
    0x0010: 0000 0000 0000 0001 0002 0000 4ac9 2807
    0x0020: ffff ffff 0000 0000 0000 0001
09:23:11.194741 IP (tos 0x0, ttl   1, id 0, offset 0, flags [DF], proto: UDP (17), length: 72)
74.201.40.7.router > RIP2-ROUTERS.MCAST.NET.router: [udp sum ok]
    RIPv2, Response, length: 44, routes: 2
     AFI: IPv4:   0.0.0.0/0 , tag 0x0000, metric: 1, next-hop: self
     AFI: IPv4:   74.201.38.7/32, tag 0x0000, metric: 1, next-hop: self
    0x0000: 0202 0000 0002 0000 0000 0000 0000 0000
    0x0010: 0000 0000 0000 0001 0002 0000 4ac9 2607
    0x0020: ffff ffff 0000 0000 0000 0001