Subject: Routing problem on HN with two NICs
Posted by seanfulton on Mon, 24 Jan 2011 23:12:40 GMT
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I'm having a strange problem with OpenVZ that is manifesting itself in strange ways.

Network set up is each HN has two NICs, one on 74.201.36.0/26, the other on 74.201.37.0/26. All VEs are in 74.201.38.0 or 74.201.39.0 and advertized as /32 entities via Quagga and RIPD.

The problem is that from within a VE, I can ping one interface on a host on the LANK, say 74.201.36.1, but not the other NIC from the other network on the same host (ie., 74.201.37.1). This is strange. The one I can ping is the one that is the preferred route in Quagga (ie., if 36.0). The one I can't ping is on the other LAN.

I've ruled out hardware issues because it randomly occurs across our network. Also, I have this with several kernels, and even the most recent (and most recent vzctl). In /etc/vz/vz.conf I've changed VE_NEIGHBOR_DEVS from none, detect and all with no difference. The VE is announced via arp over both NICs.

Any help would be greatly appreciated.

sean

DIAGNOSTICS BELOW:

ip route l from within the ve:
[root@vps6049 /]# ip route l
169.254.0.0/16 dev venet0 scope link
default dev venet0 scope link

ip route l from the HN:

[root@web2 ~]# ip route l
74.201.40.16 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.18 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.19 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.38.101 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.38.102 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.40.22 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.25 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.26 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.39.102 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.40.30 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.31 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.1 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.2 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.3 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize

74.201.40.7 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.8 via 74.201.36.9 dev eth0 proto zebra metric 2 equalize
74.201.40.9 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.40.11 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.14 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
209.2.71.241 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.40.52 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.39.78 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.38.77 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.38.78 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.38.80 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.39.88 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.40.32 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.40.35 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.38.82 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.38.85 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.38.84 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.38.86 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.38.88 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.39.80 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.39.84 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.39.86 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.38.35 via 74.201.37.10 dev eth1 proto zebra metric 2 equalize
74.201.38.32 via 74.201.37.10 dev eth1 proto zebra metric 2 equalize
74.201.40.80 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.86 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.84 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.85 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.35 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.39.32 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.40.88 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.49 dev venet0 scope link
74.201.38.52 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.40.78 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.39.52 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.40.77 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.3 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.39.11 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.38.2 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.38.1 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.39.9 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.39.8 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.38.7 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.39.14 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.38.5 via 74.201.37.10 dev eth1 proto zebra metric 2 equalize
74.201.38.11 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.39.3 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.39.2 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize

74.201.38.9 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.39.1 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
209.2.71.185 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.8 via 74.201.37.9 dev eth1 proto zebra metric 2 equalize
74.201.38.14 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
209.2.71.189 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.39.4 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.38.19 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.39.27 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.39.26 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.39.25 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.38.16 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.39.31 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.38.22 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.39.30 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.40.102 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.101 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.39.19 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.38.26 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
209.2.71.170 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.25 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.38.31 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.38.30 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.39.22 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.39.20 via 74.201.37.4 dev eth1 proto zebra metric 2 equalize
74.201.40.157 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.40.158 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.40.152 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
209.2.71.89 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.40.153 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.154 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.40.155 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
209.2.71.67 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.39.203 via 74.201.37.9 dev eth1 proto zebra metric 2 equalize
74.201.38.204 via 74.201.37.9 dev eth1 proto zebra metric 2 equalize
74.201.38.201 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.38.200 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.38.202 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.40.161 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.40.160 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.162 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.162 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.38.160 via 74.201.37.6 dev eth1 proto zebra metric 2 equalize
74.201.38.161 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.40.201 via 74.201.36.11 dev eth0 proto zebra metric 2 equalize
74.201.39.157 via 74.201.37.16 dev eth1 proto zebra metric 2 equalize
74.201.39.152 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
209.2.70.40 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize

74.201.39.151 via 74.201.37.5 dev eth1 proto zebra metric 2 equalize
74.201.38.158 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.38.157 via 74.201.37.10 dev eth1 proto zebra metric 2 equalize
74.201.38.155 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.38.154 via 74.201.37.11 dev eth1 proto zebra metric 2 equalize
74.201.38.153 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
74.201.38.152 via 74.201.37.12 dev eth1 proto zebra metric 2 equalize
209.2.71.40 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
69.25.73.104/30 via 74.201.36.2 dev eth0 proto zebra metric 3 equalize
74.201.36.0/26 dev eth0 proto kernel scope link src 74.201.36.7
74.201.37.0/26 dev eth1 proto kernel scope link src 74.201.37.7
169.254.0.0/16 dev eth1 scope link
default via 74.201.36.4 dev eth0 proto zebra metric 3 equalize

ip route l from the host that I can/can't ping:
[root@server-11 ~]# ip route l
74.201.40.16 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.18 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.19 dev venet0 scope link
74.201.38.101 dev venet0 scope link
74.201.38.102 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.22 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.25 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.26 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.30 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.102 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.40.31 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.1 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.40.2 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.3 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.7 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.8 via 74.201.36.9 dev eth0 proto zebra metric 2 equalize
74.201.40.9 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.40.11 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.14 dev venet0 scope link
209.2.71.241 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.40.52 dev venet0 scope link
74.201.39.78 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.38.77 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.78 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.80 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.32 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.39.88 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.40.35 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.38.82 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.85 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.84 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize

74.201.38.86 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.88 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.80 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.39.84 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.39.86 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.38.35 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.40.80 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.32 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.40.86 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.84 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.85 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.35 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.40.88 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.32 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.38.49 via 74.201.36.7 dev eth0 proto zebra metric 2 equalize
74.201.38.52 dev venet0 scope link
74.201.40.78 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.39.52 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.40.77 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.3 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.11 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.38.2 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.1 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.9 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.39.8 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.38.7 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.39.14 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.38.5 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.38.11 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.39.3 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.39.2 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
209.2.71.185 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.9 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.39.1 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.38.8 via 74.201.36.9 dev eth0 proto zebra metric 2 equalize
74.201.38.14 dev venet0 scope link
209.2.71.189 dev venet0 scope link
74.201.39.4 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.39.27 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.38.19 dev venet0 scope link
74.201.39.26 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.39.25 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.38.16 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.39.31 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.39.30 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.40.102 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.22 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.101 dev venet0 scope link

74.201.39.19 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
209.2.71.170 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.26 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.25 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.31 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.30 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.22 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
74.201.39.20 via 74.201.36.4 dev eth0 proto zebra metric 2 equalize
74.201.40.157 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.40.158 dev venet0 scope link
74.201.40.152 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.40.153 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
209.2.71.89 dev venet0 scope link
74.201.40.154 dev venet0 scope link
74.201.40.155 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
209.2.71.67 dev venet0 scope link
74.201.39.203 via 74.201.36.9 dev eth0 proto zebra metric 2 equalize
74.201.38.204 via 74.201.36.9 dev eth0 proto zebra metric 2 equalize
74.201.38.201 dev venet0 scope link
74.201.38.200 dev venet0 scope link
74.201.38.202 dev venet0 scope link
74.201.40.161 dev venet0 scope link
74.201.40.160 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.40.162 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.162 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.160 via 74.201.36.6 dev eth0 proto zebra metric 2 equalize
74.201.38.161 dev venet0 scope link
74.201.40.201 dev venet0 scope link
74.201.39.157 via 74.201.36.16 dev eth0 proto zebra metric 2 equalize
209.2.70.40 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.39.152 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.39.151 via 74.201.36.5 dev eth0 proto zebra metric 2 equalize
74.201.38.158 dev venet0 scope link
74.201.38.157 via 74.201.36.10 dev eth0 proto zebra metric 2 equalize
74.201.38.155 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.154 dev venet0 scope link
74.201.38.153 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
209.2.71.40 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
74.201.38.152 via 74.201.36.12 dev eth0 proto zebra metric 2 equalize
69.25.73.104/30 via 74.201.36.2 dev eth0 proto zebra metric 3 equalize
74.201.36.0/26 dev eth0 proto kernel scope link src 74.201.36.11
74.201.37.0/26 dev eth1 proto kernel scope link src 74.201.37.11
169.254.0.0/16 dev eth1 scope link
default via 74.201.36.4 dev eth0 proto zebra metric 3 equalize

PINGS FROM the host I can't ping to the VE over both interfaces:

[root@server-11 ~]# ping -Ieth0 74.201.38.49

PING 74.201.38.49 (74.201.38.49) from 74.201.36.11 eth0: 56(84) bytes of data.
64 bytes from 74.201.38.49: icmp_seq=1 ttl=64 time=0.313 ms
64 bytes from 74.201.38.49: icmp_seq=2 ttl=64 time=0.335 ms

--- 74.201.38.49 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1000ms
rtt min/avg/max/mdev = 0.313/0.324/0.335/0.011 ms
[root@server-11 ~]# ping -Ieth1 74.201.38.49
PING 74.201.38.49 (74.201.38.49) from 74.201.37.11 eth1: 56(84) bytes of data.

ARP on the HN containing the VE:
boston-1-b.grand-central.net (74.201.37.1) at 00:24:1D:2D:2D:EC [ether] on eth1
boston-1.grand-central.net (74.201.36.1) at 00:0E:0C:4C:4D:F8 [ether] on eth0
server-11.grand-central.net (74.201.36.11) at 00:01:6C:E5:9D:3D [ether] on eth0
server-11-B.grand-central.net (74.201.37.11) at 00:01:6C:E5:9D:3E [ether] on eth1
user.grand-central.net (74.201.36.4) at 00:02:B3:AC:16:69 [ether] on eth0
user-B.grand-central.net (74.201.37.4) at 00:B0:D0:B0:48:77 [ether] on eth1
? (74.201.38.49) at * PERM PUP on eth1
? (74.201.38.49) at * PERM PUP on eth0