Subject: *SOLVED* Dual NIC Setup
Posted by augustz on Sun, 02 Sep 2007 20:25:17 GMT
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I've got two NICs, eth0 and eth1

Each has a range of ip addresses.

eth0 connects to a private 10.x.x.x/26 network.
eth1 connects to a public 74.86.x.x network.

I'd like to assign each VE two ip address,
- one from the public block
- one from the private block.

These ip addresses should be routed over their respective devices, eth0 and eth1.

HN has two ips itself, and the following routes

route -n
Kernel IP routing table

Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
74.86.x.y	0.0.0.0	255.255.255.255	UH	0	0	0	venet0
10.4.57.134	0.0.0.0	255.255.255.255	UH	0	0	0	venet0
74.86.x.x	0.0.0.0	255.255.255.248	U	0	0	0	eth1
10.4.57.128	0.0.0.0	255.255.255.192	U	0	0	0	eth0
74.86.x.0	0.0.0.0	255.255.255.0	U	0	0	0	eth1
169.254.0.0	0.0.0.0	255.255.0.0	U	0	0	0	eth1
10.0.0.0	10.4.57.129	255.0.0.0	UG	0	0	0	eth0
0.0.0.0	74.86.x.z	0.0.0.0	UG	0	0	0	eth1

VE:

ifconfig -a

```
venet0    Link encap:UNSPEC  HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
          inet addr:127.0.0.1  P-t-P:127.0.0.1  Bcast:0.0.0.0  Mask:255.255.255.255
          UP BROADCAST POINTOPOINT RUNNING NOARP  MTU:1500  Metric:1
          RX packets:2 errors:0 dropped:0 overruns:0 frame:0
          TX packets:152 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:80 (80.0 b)  TX bytes:10163 (9.9 KiB)

venet0:0  Link encap:UNSPEC  HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
          inet addr:74.86.x.y P-t-P:74.86.x.y  Bcast:74.86.x.y  Mask:255.255.255.255
          UP BROADCAST POINTOPOINT RUNNING NOARP  MTU:1500  Metric:1
```

venet0:1 Link encap:UNSPEC HWaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
inet addr:10.4.57.134 P-t-P:10.4.57.134 Bcast:10.4.57.134 Mask:255.255.255.255
UP BROADCAST POINTOPOINT RUNNING NOARP MTU:1500 Metric:1

route -n
Kernel IP routing table

Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
192.0.2.0	0.0.0.0	255.255.255.0	U	0	0	0	venet0
169.254.0.0	0.0.0.0	255.255.0.0	U	0	0	0	venet0
0.0.0.0	192.0.2.1	0.0.0.0	UG	0	0	0	venet0

Current behavior

HN can ping VE (both public and private IP)
VE can ping HN (both public and private IP)
VE can ping public ips directly (out default eth1 gateway on HN)
VE can NOT ping private ips (out of eth0 gateway on HN)

I feel like it's got to be something pretty obvious here... perhaps the VE trying to connect to 10.0.80.11 using its 74.86.x.y address.

Running tcpdump I capture this on the VE when PINGING:

16:10:11.302939 IP 74.86.x.y.32926 > 10.0.80.11.domain: 50705+ (33)

Any thoughts much appreciated...

The wiki has mention of source based routing (i thought my default 10/8 rule would have picked this up. I tried the following without success

ip rule add from 10.4.57.134 table 6
ip route add default dev eth0 via 10.4.57.129 table 6

Subject: Re: Dual NIC Setup
Posted by vaverin on Mon, 03 Sep 2007 07:21:46 GMT
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By default VE uses source IP for outgoining packets taken from first venet interface. In your case it is public IP.

It looks you want to change this behaviour and set private source IP if VE accessed private network:

ip route add to 10.0.0.0/8 src 10.x.y.z dev venet0

and set public source IP for any other connections

ip route add default src 74.86.x.y dev venet0

update: I would note -- you should add these rules inside your VEs

Thank you,
Vasily Averin

Subject: Re: Dual NIC Setup
Posted by augustz on Mon, 03 Sep 2007 20:28:27 GMT
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I did exactly this after digging around.

in route-venet0

10.0.0.0/8 dev venet0 scope link src 10.4.57.180

Which I assumed meant send anything destined to 10.x from 10.4.57.180.

Worked perfectly, and is exactly what you recommended.
