
Subject: Understanding container networking (NAT)
Posted by [chacha](#) on Wed, 21 Nov 2012 07:01:24 GMT
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Hi,

Under a NAT setup (ip_forward enabled), I issued the following to create two containers -

```
vzctl create 101 --ostemplate centos-6-x86_64 --config basic --ipadd 192.168.3.101
```

```
vzctl set 101 --nameserver 8.8.8.8 --userpasswd root:xxxx --save
```

```
vzctl create 102 --ostemplate centos-6-x86_64 --config basic --ipadd 192.168.3.102
```

```
vzctl set 102 --nameserver 8.8.8.8 --userpasswd root:xxxx --save
```

I boot up the containers and connect to the first. The routing table shows as follows -

| Destination | Gateway | Genmask | Flags | Metric | Ref | Use | Iface |
|-------------|---------|---------------|-------|--------|-----|-----|--------|
| 192.168.3.0 | 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 | 1002 | 0 | 0 | venet0 |
| 0.0.0.0 | 0.0.0.0 | 0.0.0.0 | U | 0 | 0 | 0 | venet0 |

I change the masks on both containers to /24 (they were /32 by default).

(Still connected to the first container) I traceroute to the second container (192.168.3.102) I see the following -

```
traceroute to 192.168.3.102 (192.168.3.102), 30 hops max, 60 byte packets
```

```
 1 192.168.2.200 (192.168.2.200) 0.045 ms 0.011 ms 0.010 ms
 2 192.168.3.102 (192.168.3.102) 0.021 ms 0.014 ms 0.013 ms
```

I had assumed that both containers would be on the same network segment. I don't understand why the first hop is the HN? (192.168.2.200)? Wouldn't they be on the same virtual switch?

Thanks.