Subject: **SOLVED** DHCP server problem inside centos 5.2 VE
Posted by jiadar on Mon, 21 Jul 2008 06:26:47 GMT
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I am having trouble running a DHCP server inside a VE. The host node is Centos 5.2 kernel
2.6.18-53.1.19.el5.028stab053.14 and kernel 2.6.24-ovz005.1 on an x86_64 SMP machine.

Except for DHCP, all other TCP network services I have tested (ssh, http, ping) work to and from
the host node and container; and also work to/from any other host on my network and the
container. I have not tested any other broadcast services (smb, wins, etc).

My firewall is disabled, iptables shows accept with no rules, SELinux is disabled, and my routes
seem to be correct. The guest is also running Centos 5.2 which I created with mach, then
modified following the instructions in the wiki. I've tried this with a bridge and without, the same
results are obtained. The DHCP packets come into VE0 eth0, but never go to the veth interface,
and subsequently never make it inside the container.

I've looked at every post I could find concerning DHCP. I don't think a firewall is blocking things. I
don't know if it is a problem with my template, as everything else works great. I would appreciate
any help and suggestions.

Attached file contains the specific details, tcpdumps, and other diagnostic evidence.

File Attachments
1) diagnosis.txt, downloaded 580 times

Subject: Re: DHCP server problem inside centos 5.2 VE
Posted by jiadar on Mon, 21 Jul 2008 16:42:42 GMT
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I just tried a DHCP server in a newly created VE with my template, and a newly created VE using
the centos-4-x86_64-default template as provided by openvz.. Same result as above.

Subject: Re: DHCP server problem inside centos 5.2 VE
Posted by maratrus on Tue, 22 Jul 2008 10:58:41 GMT
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Hi,

to let broadcast packets go through veth you should unite eth0 and veth109.0 into the bridge.

P.S. Could you please also show "iptables -t nat -L", "iptables -t mangle -L".

Subject: Re: DHCP server problem inside centos 5.2 VE
Posted by jiadar on Tue, 22 Jul 2008 21:28:27 GMT

```
[root@VE0 ~]# iptables -t mangle -L

Chain PREROUTING (policy ACCEPT)
target    prot opt source          destination

Chain INPUT (policy ACCEPT)
target    prot opt source          destination

Chain FORWARD (policy ACCEPT)
target    prot opt source          destination

Chain OUTPUT (policy ACCEPT)
target    prot opt source          destination

Chain POSTROUTING (policy ACCEPT)
target    prot opt source          destination

root@VE0 ~]# iptables -t nat -L
Chain PREROUTING (policy ACCEPT)
target    prot opt source          destination

Chain POSTROUTING (policy ACCEPT)
target    prot opt source          destination

Chain OUTPUT (policy ACCEPT)
target    prot opt source          destination
```

Subject: solution
Posted by jiadar on Thu, 24 Jul 2008 19:23:10 GMT

I've solved this. Apparently, red hat insists that you follow their convention for creating the bridge. Creating the bridge by using brctl directly does not work. The following configurations solve the problem.

1. Create a file /etc/sysconfig/network-scripts/ifcfg-br0

Put in the IP information that was in your primary physical ethernet device. Change the device from "eth0" to "br0" and type from "ether" to "Bridge".

2. Modify the /etc/sysconfig/network-scripts/ifcfg-eth0

Modify your primary ethernet interface to be a member of the bridge
with no IP information. Set it to use the bridge.

3. Add a file for each of your veth devices. For instance, for
vethX.0, add a file /etc/sysconfig/network-scripts/ifcfg-vethX.0.

This file is almost the same as eth0. You will add the vethX.0 device
to the bridge.

My actual configuration files are below:

```
===============ifcfg-br0===============
DEVICE=br0
BOOTPROTO=static
BROADCAST=10.0.129.255
IPADDR=10.0.129.4
IPV6INIT=yes
IPV6_AUTOCONF=yes
NETMASK=255.255.255.0
NETWORK=10.0.129.0
ONBOOT=yes
GATEWAY=10.0.129.1
TYPE=Bridge
```

```
===============ifcfg-eth0===============
DEVICE=eth0
TYPE=ether
BRIDGE=br0
ONBOOT=yes
```

```
===============ifcfg-veth109.0===============
DEVICE=veth109.0
ONBOOT=yes
STARTMODE=onboot
BRIDGE=br0
```

```
===============brctl show br0===============
bridge name     bridge id               STP enabled     interfaces
br0             8000.0018510bd235       no              veth109.0
                                                        eth0
===============route -n===============
Destination     Gateway         Genmask         Flags Metric Ref
Use Iface
10.0.129.0      0.0.0.0         255.255.255.0  U    0     0
```

```
0 br0
169.254.0.0     0.0.0.0      255.255.0.0   U    0    0
0 br0
0.0.0.0         10.0.129.1   0.0.0.0       UG   0    0
0 br0
```

Subject: Re: solution
Posted by luisdev on Thu, 13 Nov 2008 18:31:35 GMT
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Good info, thanks.

I would add the following:

- You may have to add the HWADDR parameter with the MAC address to the eth0 configuration
script at HN.

- If you have a DROP policy in your iptables FORWARD chain add the following rule to
/etc/sysconfig/iptables:

-A FORWARD -p udp --dport bootps -j ACCEPT

- If your VE is also CentOS make sure there is a /etc/sysconfig/network-scripts/ifcfg-eth0
configuration script similar to this:

DEVICE=eth0
ONBOOT=yes
IPADDR=10.0.0.101
NETMASK=255.0.0.0

Subject: Re: solution
Posted by samuthiram on Fri, 16 Apr 2010 09:13:13 GMT
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Subject: Re: DHCP server problem inside centos 5.2 VE
Posted by samuthiram on Fri, 16 Apr 2010 16:12:38 GMT

hi am new in openvz, can anyone tell me how to configure dhcp vps on dhcp host node.(should configure both vps and host node with dhcp network).