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Subject: How to assign a public IP to a VE ?  
Posted by [U.Mutlu](#) on Sat, 29 Oct 2011 00:39:50 GMT  
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Hi,  
how can I assign a public IP to an openVZ VE?  
What tasks do I need to do on the HN and on the VE?

The HN already has a public IP and it's working ok.  
Now I got a 2nd public IP and need to use it for the VE  
(unfortunately that 2nd IP is from a different net than the first IP, if that matters).

When I assign the 2nd IP to eth0 or to venet0 on the HN then  
it works fine on the HN, but I need to assign it to the VE,  
and here I don't know how to do the assignment and the routing.

If someone has a similar setup (HN and VE: Debian 5 or 6, and using venet)  
please let me know your solution, thx.

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Subject: Re: How to assign a public IP to a VE ?  
Posted by [Gary Wallis](#) on Sat, 29 Oct 2011 02:29:14 GMT  
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Sounds like a general networking vlan and/or bonding issue. But make  
sure that these /etc/vz/vz.conf parameters are set correctly:

```
# The name of the device whose IP address will be used as source IP for CT.  
# By default automatically assigned.  
#VE_ROUTE_SRC_DEV="eth0"  
  
# Controls which interfaces to send ARP requests and modify APR tables on.  
#NEIGHBOUR_DEVS=detect  
  
## Fail if there is another machine in the network with the same IP  
ERROR_ON_ARPFAIL="no"
```

Also check the output of

```
# route -n
```

Make sure default gw (0.0.0.0) is on the correct device and that this  
device is plugged into the correct switch port.

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Subject: Re: How to assign a public IP to a VE ?

Gary Wallis wrote, On 2011-10-29 04:29:

> Sounds like a general networking vlan and/or bonding issue. But make sure that these /etc/vz/vz.conf parameters are set correctly:

>

> # The name of the device whose IP address will be used as source IP for CT.

> # By default automatically assigned.

> #VE\_ROUTE\_SRC\_DEV="eth0"

>

> # Controls which interfaces to send ARP requests and modify APR tables on.

> #NEIGHBOUR\_DEVS=detect

tried also with "all"

> ## Fail if there is another machine in the network with the same IP

> ERROR\_ON\_ARPFAIL="no"

Have it already so

> Also check the output of

>

> # route -n

>

> Make sure default gw (0.0.0.0) is on the correct device and that this device is plugged into the correct switch port.

The main IP is XXX.XXX.132.147/24, and the GW is XXX.XXX.132.1 .

The 2nd IP is XXX.XXX.131.15 .

The goal is to assign the 2nd IP to the VE.

Let's start on the HN. Is the following setup on the HN correct?

# ip a l

root@s7:/tmp# ip a l

1: lo: <LOOPBACK,UP,LOWER\_UP> mtu 16436 qdisc noqueue state UNKNOWN

link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

inet 127.0.0.1/8 scope host lo

2: eth0: <BROADCAST,MULTICAST,UP,LOWER\_UP> mtu 1500 qdisc pfifo\_fast state UP qlen 1000

link/ether 00:1b:21:ad:7b:d3 brd ff:ff:ff:ff:ff:ff

inet XXX.XXX.132.147/24 brd XXX.XXX.132.255 scope global eth0

inet XXX.XXX.131.15/24 brd XXX.XXX.131.255 scope global eth0:0

3: venet0: <BROADCAST,POINTOPOINT,NOARP,UP,LOWER\_UP> mtu 1500 qdisc noqueue state UNKNOWN

link/void

# ip r l

```
XXX.XXX.132.0/24 dev eth0 proto kernel scope link src XXX.XXX.132.147
XXX.XXX.131.0/24 dev eth0 proto kernel scope link src XXX.XXX.131.15
default via XXX.XXX.132.1 dev eth0
```

# route -n

Kernel IP routing table

Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
XXX.XXX.132.0	0.0.0.0	255.255.255.0	U	0	0	0	eth0
XXX.XXX.131.0	0.0.0.0	255.255.255.0	U	0	0	0	eth0
0.0.0.0	XXX.XXX.132.1	0.0.0.0	UG	0	0	0	eth0

Both IPs can be pinged from outside.

If that's correct on the HN, then how should the /etc/network/interfaces on the VE look like?

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Subject: Re: How to assign a public IP to a VE ? (SOLVED)

Posted by [U.Mutlu](#) on Sun, 30 Oct 2011 12:12:51 GMT

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Problem solved!

(problem was how to assign a public IP to a VE)

It was a firewall issue on the HN, because in my firewall script the default iptables target for FORWARD was set to DROP. After changing this to ACCEPT things work fine.

(now I must recheck my security guidelines on whether and which other implications this change can have...)

ie. the solution was to change this from

iptables -P FORWARD DROP

to

iptables -P FORWARD ACCEPT

(for testing one can of course also completely disable the iptables firewall)

And do not assign the IP in question to the HN, rather just let it assign/manage by vzctl when it creates/starts the VE.

This solution uses the default venet0 only, ie. no veth, no bridging etc., no "source routing via kernel routing table" etc., not even any additional normal routing! :-)  
(Beware: there is much garbage info floating around on the net about the venet0 device; maybe this is due to very old versions of vzctl used...)

My environment:

HN: Debian 6 (squeeze), but using a newer vzctl from either the upcoming Debian 7 (wheezy/testing)

or from <http://download.openvz.org/utils/vzctl/current/>; I've vzctl version 3.0.29.3.

Kernel: 2.6.32-5-openvz-amd64 (linux-image-2.6.32-5-openvz-amd64 from the debian repository)

VE: debian-6.0-i386-minimal from <http://wiki.openvz.org/Download/template/precreated>  
(I so far tested only this one, the other ones should work too I think)

People still having problems setting up openvz can contact me (help @ mutluit.com)  
if having a similar environment (ie. Debian 6 on HN+VE, using venet, not veth),  
maybe I can help if time permits...

--

U.Mutlu  
[www.mutluit.com](http://www.mutluit.com)

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Subject: Re: How to assign a public IP to a VE ? (SOLVED)

Posted by [U.Mutlu](#) on Sun, 30 Oct 2011 16:04:49 GMT

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U.Mutlu wrote, On 2011-10-30 13:12:

- > Problem solved!
- > (problem was how to assign a public IP to a VE)
- >
- > It was a firewall issue on the HN, because in my firewall script
- > the default iptables target for FORWARD was set to DROP. After changing
- > this to ACCEPT things work fine.
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- > implications this change can have...)
- >
- > ie. the solution was to change this from
- > iptables -P FORWARD DROP
- > to
- > iptables -P FORWARD ACCEPT
- > (for testing one can of course also completeley disable the iptables firewall)

Now I improved the above solution to this more secure solution:

```
iptables -P FORWARD DROP
iptables -A FORWARD -s w.x.y.z -j ACCEPT
iptables -A FORWARD -d w.x.y.z -j ACCEPT
```

where w.x.y.z is the IP for the VE.

(I could have also make it "w.x.y.z/24" but IMO it's not necessary  
since no broadcasts are supposed to go over that link).

- > And do not assign the IP in question to the HN, rather just
- > let it assign/manage by vzctl when it creates/starts the VE.
- >
- > This solution uses the default venet0 only, ie. no veth, no bridging etc.,
- > no "source routing via kernel routing table" etc., not even any additional normal routing! :-)
- > (Beware: there is much garbage info floating around on the net about the venet0 device;
- > maybe this is due to very old versions of vzctl used...)

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> My environment:  
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> People still having problems setting up openvz can contact me (help @ mutluit.com)  
> if having a similar environment (ie. Debian 6 on HN+VE, using venet, not veth),  
> maybe I can help if time permits...  
>  
> --  
> U.Mutlu  
> [www.mutluit.com](http://www.mutluit.com)

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