Subject: i can't ping vps from the host.
Posted by greenflying2010 on Thu, 12 Aug 2010 07:46:23 GMT

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I create a vps on openvz. This vps has two network interfaces, one is venet0 ,venet0:0 and the other is eth0. The ipaddr of venet0:0 is 192.168.255.2, and the eth0 ipaddr is 10.202.0.242. The ipaddr of the openvz host is 192.168.255.254. From the host, i can ping the venet0:0 192.168.255.2, but why i can't ping the eth0 of vps 10.202.0.242????
I have start the ipv4 forwarding in vps and closed the firewall.
when i try the following command:
ping -I venet0 10.202.0.242
it appears an error like: ping: sendmsg: operation not permitted.
What's the problem??

thanks
b.guo

Subject: Re: i can't ping vps from the host.
Posted by lars_bailey on Tue, 19 Oct 2010 00:40:44 GMT

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You need to enable forwarding on your specific VETH adapter interface.
Example "sysctl.conf".

net.conf.ipv4.default.forwarding = 1
net.conf.ipv4.veth101.0.forwarding = 1

If you bridge VETH interfaces use;

net.conf.ipv4.all.forwarding = 1

Forwarding is not needed in a VPS.

Subject: Re: i can't ping vps from the host.
Posted by lars_bailey on Wed, 03 Nov 2010 12:51:54 GMT

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To expand this thread a little further,the member does not specify whether the VETH interface is bridged,so one must assume it's not.
If the VETH is not bridged,this interface becomes the VPS's "gateway".
Since the IP subnet for the VPS differs than the Node,routing is not an issue,since the Node will have this subnet in its table.(based on the VETH IP)

Example;

Node 192.168.99.254
VETH 10.10.100.254
VPS 10.10.100.2

All that is needed for the VPS,is placing this in its config.

GATEWAY=10.10.100.254

From the Node,both the VETH and VPS IP addresses are reachable.
From the VPS,the VETH IP address,is reachable.
The Node IP address is possible to reach from the VPS,as long as you know the IP.
A Node server's IP address,is never seen as a network hop,whether you bridge or not.
If you follow the example above,forwarding for VPS via VETH interface,does not need to be
enabled,unless the VPS needs it.
On my Node,only one VPS has forwarding enabled,
All other VPS's,can not reach each other,hence the error the member was getting.
I hope this explaination helps.

Subject: Re: i can't ping vps from the host.
Posted by lars.bailey on Fri, 03 Dec 2010 05:56:43 GMT
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The kernel key I demonstraated to enable will not work with
with SYSCTL.
This will enable forwarding for all VETH interfaces;

net.ipv4.conf.default.forwarding = 1

This is taken directly from one Node server.

net.ipv4.conf.default.rp_filter = 1
net.ipv4.conf.all.rp_filter = 1
net.ipv4.conf.default.accept_source_route = 0
net.ipv4.conf.default.proxy_arp = 0
net.ipv4.conf.vebr0.proxy_arp = 1
net.ipv4.conf.vebr0.forwarding = 0
net.ipv4.conf.default.forwarding = 1
net.ipv4.conf.eth1.forwarding = 1
net.ipv4.conf.default.send_redirects = 1
net.ipv4.conf.all.send_redirects = 0
net.ipv4.conf.all.accept_redirects = 0

The kernel keys for the physical interfaces,is based on my particular setup.
Just proper your firewall rules,if you want to limit forwarding
for a VETH configured container.(self-exxplainatory)

This is my full "sysctl.conf"

```
kernel.sysrq = 1
kernel.core_uses_pid = 1
kernel.msgmnb = 65536
kernel.msgmax = 65536
kernel.shmmax = 4294967295
kernel.shmall = 268435456

# Prevent SYN attacks

net.ipv4.tcp_syncookies = 1
net.ipv4.tcp_max_syn_backlog = 2048
net.ipv4.tcp_synack_retries = 2

# OpenVZ

net.ipv4.conf.default.rp_filter = 1
net.ipv4.conf.all.rp_filter = 1
net.ipv4.conf.default.accept_source_route = 0
net.ipv4.conf.default.proxy_arp = 0
net.ipv4.conf.vebr0.proxy_arp = 1
net.ipv4.conf.vebr0.forwarding = 0
net.ipv4.conf.default.forwarding = 1
net.ipv4.conf.eth1.forwarding = 1
net.ipv4.conf.default.send_redirects = 1
net.ipv4.conf.all.send_redirects = 0
net.ipv4.conf.all.accept_redirects = 0

#IPv6

net.ipv6.conf.all.forwarding = 1
net.ipv6.conf.all.accept_redirects = 0

# Depreciated,but needed for setup tool
# net.ipv4.ip_forward = 1

# My tweaks

net.core.rmem_default = 524288
net.core.rmem_max = 524288
net.core.wmem_default = 524288
net.core.wmem_max = 524288
net.ipv4.tcp_wmem = 4096 87380 524288
net.ipv4.tcp_rmem = 4096 87380 524288
net.ipv4.tcp_mem = 524288 524288 524288
net.ipv4.tcp_rfc1337 = 1
net.ipv4.ip_no_pmtu_disc = 0
net.ipv4.tcp_sack = 1
```

net.ipv4.tcp_fack = 1
net.ipv4.tcp_window_scaling = 1
net.ipv4.tcp_timestamps = 0
net.ipv4.tcp_ecn = 0
net.ipv4.conf.all.log_martians = 1

vm.vfs_cache_pressure = 50
vm.swappiness = 20

Hope it helps