Subject: Routing Stops to work(VE's are no longer reachable)
Posted by alamar on Thu, 19 Feb 2009 17:06:41 GMT

Hi everybody,

I'm relatively new to OpenVZ but I'm trying my best to describe my
problem.
I lately installed an openvz-patched kernel on a debian HN.(linux-image-2.6.26-1-openvz-amd64)
Everything seemed to work fine except for IPv6,
I wasn't able to configure a SIT tunnel. (ioctl error - no such device)
I then tried 2.6.24 from the repository linked from the openvz wiki. This time the server didn't finish
booting (though I couldn't find an error explaining this in /var/log/kernel.log - are there other places
to look?)

Well I then downloaded the kernel sources for 2.6.24 and configured&compiled the kernel myself.
This time the kernel booted fine, Ipv6 SIT tunnel worked fine
and even OpenVZ seemed to work fine (at first).
I created about ten containers. After a while they lost connectivity to the internet. The routing table
didn't change, I didn't configure netfilter yet, no cronjobs that would do anything like that are
running (at least I can't find any).

For better understanding an example:

on the HN:
vzlist
gw:/home/julian# vzctl start 103
Starting container ...
Container is mounted
Adding IP address(es): 91.143.93.205 2a01:30:100d:cafe::1 2001:1638:18ff:2:aaaa::1
Setting CPU units: 1000
Configure meminfo: 227892
Set hostname: kugel.kontextfrei.de
Setting quota ugidlimit: 100
Container start in progress...

gw:/home/julian# vzlist -H 103
      103   56 running 91.143.93.205 kugel.kontextfrei.de

On my homepc:
Quote:
alamar@stronghold ~ $ ping 91.143.93.205 -c 10
PING 91.143.93.205 (91.143.93.205) 56(84) bytes of data.

--- 91.143.93.205 ping statistics ---
10 packets transmitted, 0 received, 100% packet loss, time 9014ms

Traceroute showed as last working hop the router my server is connected to.

So I thought maybe routing rules were missing/deleted

(EDIT:
I think I (maybe?) just solved this by adding the following route)
Quote:
91.143.93.0/24 dev eth0 proto kernel scope link src 85.31.187.154

Can somebody explain me why this route is necessary and how it comes that it wasn't set but the containers did work for a while?)

Quote:
ip ro show
91.143.93.205 dev venet0 scope link
85.31.186.0/23 dev eth0 proto kernel scope link src 85.31.187.154
default via 85.31.186.1 dev eth0

and:
net.ipv4.conf.venet0.forwarding = 1
net.ipv4.conf.eth0.forwarding = 1
net.ipv4.conf.all.forwarding = 1
net.ipv4.conf.lo.forwarding = 1
net.ipv4.conf.default.forwarding = 1

I then started tcpdump to see if the packets _do_ arrive at the HN or if the router is the problem.
Quote:
gw:/home/julian# tcpdump -i eth0 -n icmp
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on eth0, link-type EN10MB (Ethernet), capture size 96 bytes

Didn't show anything when I started pinging.

I rechecked that no netfilter rules are set and just in case did a flush - nothing changed.

Then I tried to add the VE's Ip address to the eth0 interface of the HN and look if it works and in deed it did:
Quote:
HN:
gw:/home/julian# ip addr add 91.143.93.205 dev eth0
Home:
alamar@stronghold ~ $ ping 91.143.93.205
PING 91.143.93.205 (91.143.93.205) 56(84) bytes of data.
64 bytes from 91.143.93.205: icmp_seq=2 ttl=60 time=44.1 ms

64 bytes from 91.143.93.205: icmp_seq=3 ttl=60 time=44.3 ms
^C

After removing the ip address from the interface again suddenly packets arrived at the VE.
Quote:
HN:
gw:/home/julian# ip addr del 91.143.93.205/32 dev eth0
Home:
alamar@stronghold ~ $ ping 91.143.93.205
PING 91.143.93.205 (91.143.93.205) 56(84) bytes of data.
64 bytes from 91.143.93.205: icmp_seq=1 ttl=60 time=44.9 ms
^C

Routing tables still looked the same.
From the VE I then can connect to the internet.
But after a while - and I can't see why/when or what triggers it, the connectivity disappears.
Adding the IP to eth0, pinging it, and removing it again works everytime. (Without a ping/or any other arriving packet for the address it doesn't work)

If any relevant information is missing I'm sorry and will add it ASAP.

Kernel Options related to openvz:
Quote:
gw:/usr/src/linux# grep -ie '_v\(z\|e\)_' .config
CONFIG_VZ_FAIRSCHED=y
CONFIG_VE_CALLS=m
CONFIG_VZ_GENCALLS=y
CONFIG_VE_NETDEV=m
CONFIG_VE_ETHDEV=m
CONFIG_VZ_DEV=m
CONFIG_VE_IPTABLES=y
CONFIG_VZ_WDOG=m
CONFIG_VZ_CHECKPOINT=m
CONFIG_VZ_QUOTA=m
# CONFIG_VZ_QUOTA_UNLOAD is not set
CONFIG_VZ_QUOTA_UGID=y

Sorry if the topic title is misleading or unprecise, I didn't know how to better name it(As I'm unsure what the problem is), if there is a more fitting title I'll change it.