Subject: Docker daemon fails to start on host but succeeds in VZ container
Posted by abufrejoval on Tue, 06 Dec 2016 17:03:22 GMT
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Want to run docker images on host and inside an OpenVZ container (related to CUDA)

The docker daemon fails to start on the host after installation, it fails trying to set up routing via iptables.
Specifically it can't seem to find a 'nat' table

FATA[0001] Error starting daemon: Error initializing network controller: error obtaining controller instance: failed to create NAT chain: iptables failed: iptables --wait -t nat -N DOCKER: iptables v1.4.21: can't initialize iptables table `nat': Table does not exist (do you need to insmod?)
Perhaps iptables or your kernel needs to be upgraded.

And yes, 'cat /proc/net/ip_table_names' only lists raw, mangle and filter.

Following the hint on modprobe, I can only see that there is lots of *net* related modules loaded, but what's even more strange is: It works inside an OpenVZ container.

I used a Centos7 and a VZ7 template, set up an OpenVZ container with each, and installed Docker inside as per instructions (https://openvz.org/Docker_inside_CT).

Funny enough inside the OpenVZ containers /proc/net/ip_table_names *contains* also 'nat' and the Docker daemon has no issues setting up the network at all.

So I guess I can rule out any missing modules.

If I start the Docker daemon on the host with --iptable=false it will run, but Docker containers have no network access.

I can only guess some configuration is responsible for this odd behaviour on the host and I hope you can help me find it.

P.S.:
The issue seems independent of the Docker version or variant. I've tried 1.8.2 which comes with VZ7 and 1.12.3 from docker.com.
It's the 'iptables --wait -t nat -N DOCKER' command which fails for the missing 'nat' (or inaccessible?) table on the host.

The baseline CentOS 7 I run for comparison has nat,mangle,security,raw and filter tables in /proc/net/ip_table_names. Security seems disabled in the VZ .config file but that shouldn't be an issue.