Hello, i want to setup docker into openvz container with this howto: wiki.openvz.org/Docker_inside_CT. When i trying to run docker service, i have message about error in mounts:

docker:~# bash -x /etc/init.d/docker start  
+ set -e  
+ export PATH=/sbin:/bin:/usr/sbin:/usr/bin:/usr/local/sbin:/usr/local/bin  
+ PATH=/sbin:/bin:/usr/sbin:/usr/bin:/usr/local/sbin:/usr/local/bin  
++ basename /etc/init.d/docker  
+ BASE=docker  
+ DOCKER=/usr/bin/docker  
+ DOCKER_PIDFILE=/var/run/docker.pid  
+ DOCKER_SSD_PIDFILE=/var/run/docker-ssd.pid  
+ DOCKER_LOGFILE=/var/log/docker.log  
+ DOCKER_OPTS=  
+ DOCKER_DESC=Docker  
+ . /lib/lsb/init-functions  
+++ run-parts --lsbsysinit --list /lib/lsb/init-functions.d  
++ for hook in "$\{\text{run-parts --lsbsysinit --list /lib/lsb/init-functions.d 2>/dev/null}\}'  
++ '\[ -r /lib/lsb/init-functions.d/20-left-info-blocks '\]'  
++ . /lib/lsb/init-functions.d/20-left-info-blocks  
++ FANCYTTY=  
++ '\[ -e /etc/lsb-base-logging.sh '\]'  
++ true  
+ '\[ -f /etc/default/docker '\]'  
+ . /etc/default/docker  
+ '\[ -x /sbin/initctl '\]'  
+ '\[ ! -x /usr/bin/docker '\]'  
+ case "\$1" in  
+ fail_unless_root  
++ id -u  
+ '\[ 0 \'= 0 \]'  
+ cgroupfs_mount  
+ grep -v "^#" /etc/fstab  
+ grep -q cgroup  
+ '\[ ! -e /proc/cgroups \]'  
+ '\[ ! -d /sys/fs/cgroup \]'  
+ mountpoint -q /sys/fs/cgroup  
+ cd /sys/fs/cgroup  
++ awk "!~/#/ { if ($4 == 1) print $1 }" /proc/cgroups  
+ for sys in "$\{\text{awk "!/#/ \{ if ($4 == 1) print $1 \}" /proc/cgroups}\}'  
+ mkdir -p cpuset  
+ mountpoint -q cpuset  
+ mount -n -t cgroup -o cpuset cgroup cpuset
mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir cpuset
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p cpu
+ mountpoint -q cpu
+ mount -n -t cgroup -o cpu cgroup cpu
mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir cpu
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p cpuacct
+ mountpoint -q cpuacct
+ mount -n -t cgroup -o cpuacct cgroup cpuacct
mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir cpuacct
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p devices
+ mountpoint -q devices
+ mount -n -t cgroup -o devices cgroup devices
mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir devices
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p freezer
+ mountpoint -q freezer
+ mount -n -t cgroup -o freezer cgroup freezer
mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir freezer
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p net_cls
+ mountpoint -q net_cls
+ mount -n -t cgroup -o net_cls cgroup net_cls

mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir net_cls
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p blkio
+ mountpoint -q blkio
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p perf_event
+ mountpoint -q perf_event
+ mount -n -t cgroup -o perf_event cgroup perf_event

mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir perf_event
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p net_prio
+ mountpoint -q net_prio
+ mount -n -t cgroup -o net_prio cgroup net_prio

mount: wrong fs type, bad option, bad superblock on cgroup,
    missing codepage or helper program, or other error
    (for several filesystems (e.g. nfs, cifs) you might
    need a /sbin/mount.<type> helper program)
    In some cases useful info is found in syslog - try
dmesg | tail or so

+ rmdir net_prio
+ for sys in `$(awk "!/^#/ { if ($4 == 1) print $1 }" /proc/cgroups)`
+ mkdir -p memory
+ mountpoint -q memory
+ touch /var/log/docker.log
+ chgrp docker /var/log/docker.log
+ ulimit -n 1048576
+ [' /bin/bash ']
+ ulimit -u 1048576
+ log_begin_msg 'Starting Docker: docker'
+ log_begin_msg_pre 'Starting Docker: docker'
+ log_daemon_msg_pre 'Starting Docker: docker'
+ log_use_fancy_output
+ TPUT=/usr/bin/tput
+ EXPR=/usr/bin/expr
+ [' -t 1 ']
+ [' xxterm '!=' x ']
+ [' xxterm '!=' xdumb ']
+ [' -x /usr/bin/tput ']
+ [' -x /usr/bin/expr ']
+ /usr/bin/tput hpa 60
+ /usr/bin/tput setaf 1
+ [' -z ']
+ FANCYTTY=1
+ case "$FANCYTTY" in
+ true
+ /bin/echo -n '.... '[
[....] + [' -z 'Starting Docker: docker ']
+ /bin/echo -n 'Starting Docker: docker'
Starting Docker: docker+ log_begin_msg_post 'Starting Docker: docker'
+ : ;
+ start-stop-daemon --start --background --no-close --exec /usr/bin/docker --pidfile /var/run/docker-ssd.pid --make-pidfile -- -d -p /var/run/docker.pid
+ log_end_msg 0
+ [' -z 0 ']
+ local retval
+ retval=0
+ log_end_msg_pre 0
+ log_use_fancy_output
+ TPUT=/usr/bin/tput
+ EXPR=/usr/bin/expr
+ [' -t 1 ']
+ [' xxterm '!=' x ']
+ [' xxterm '!=' xdumb ']
+ [' -x /usr/bin/tput ']
+ [' -x /usr/bin/expr ']
+ /usr/bin/tput hpa 60
+ /usr/bin/tput setaf 1
+ [' -z 1 ']
+ true
When trying to run docker, i have:

docker:~# docker -D run ubuntu:14.04 /bin/echo 'Hello world'
DEBU[0010] Corrupted prefix: []
DEBU[0010] [hijack] End of stdout
FATA[0010] Error response from daemon: Cannot start container
37334e43a8384e845594f11e3b76a3d0c4153cd91a24e9c7806a5ac80db44696: [8] System error: mountpoint for cpu not found

I found this error is when docker haven't cgroup for cpu, so i trying mount cpu cgroup support on host, but i cannot:

root@lubtest03:~# mount
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
udev on /dev type devtmpfs (rw,relatime,size=1024k, nr_inodes=4115565, mode=755)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5, mode=620, ptmxmode=000)
tmpfs on /run type tmpfs (rw,nosuid,noexec,relatime,size=3294292k, mode=755)
/dev/mapper/s-root on / type xfs (rw,relatime,attr2,delaylog,noquota)
tmpfs on /run/lock type tmpfs (rw,nosuid,nodenoexec,relatime,size=5120k)
tmpfs on /run/shm type tmpfs (rw,nosuid,nodenoexec,relatime,size=8266300k)
/dev/mapper/s-docker on /fs/v/docker type xfs (rw,relatime,attr2,delaylog,noquota)
rpc_pipefs on /var/lib/nfs/rpc_pipefs type rpc_pipefs (rw,relatime)
beancounter on /proc/vz/beancounter type cgroup (rw,relatime,blkio,name=beancounter)
container on /proc/vz/container type cgroup (rw,relatime,freezer,devices,name=container)
fairsched on /proc/vz/fairsched type cgroup (rw,relatime,cpuacct,cpu,cpuset,name=fairsched)
/fs/v/docker/private on /fs/v/docker/root type simfs (rw,relatime)
proc on /fs/v/docker/root/proc type proc (rw,nosuid,nodev,noexec,relatime)
sysfs on /fs/v/docker/root/sys type sysfs (rw,nosuid,nodev,noexec,relatime)
cgroup on /fs/v/docker/root/sys/fs/cgroup type tmpfs (rw,relatime)
tmpfs on /fs/v/docker/root/var/run type tmpfs (rw,nosuid,noexec,relatime)
tmpfs on /fs/v/docker/root/var/run/lock type tmpfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /fs/v/docker/root/var/run/shm type tmpfs (rw,nosuid,nodev,noexec,relatime)
devpts on /fs/v/docker/root/dev/pts type devpts (rw,nosuid,noexec,relatime,mode=600,ptmxmode=000)
tmpfs on /fs/v/docker/root/run type tmpfs (rw,nosuid,noexec,relatime)
/fs/v/docker/private on /fs/v/docker/root/run/lock type simfs (rw,relatime)
tmpfs on /fs/v/docker/root/run/shm type tmpfs (rw,nosuid,nodev,noexec,relatime)
cgroup on /fs/v/docker/root/sys/fs/cgroup/blkio type cgroup (rw,relatime,blkio,name=beancounter)
cgroup on /fs/v/docker/root/sys/fs/cgroup/memory type cgroup (rw,relatime,memory)
root@lubtest03:~# mkdir /fs/v/docker/root/sys/fs/cgroup/cpuset; mount -t cgroup cpuset -ocpuset /fs/v/docker/root/sys/fs/cgroup/cpuset
mount: cpuset already mounted or /fs/v/docker/root/sys/fs/cgroup/cpuset busy
root@lubtest03:~# mount | grep cpu
fairsched on /proc/vz/fairsched type cgroup (rw,relatime,cpuacct,cpu,cpuset,name=fairsched)
root@lubtest03:~#

root@lubtest03:~# uname -r
2.6.32-openvz-042stab105.4-amd64
root@lubtest03:~# vzctl --version
vzctl version 4.9.1
What can I doing with this?

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**Subject: Re: Docker into OpenVZ container**
**Posted by** [tburazin](mailto:tburazin) **on Fri, 19 Jun 2015 19:41:06 GMT**

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Hi wiuempe,
I've been successful in getting Docker to run, but only on the following configuration:
CentOS (6 or 7 with kernel 2.6.32-042stab108.2) host server with running a CentOS 7 container running Docker.

The how-to on wiki.openvz.org/Docker_inside_CT works perfectly for my configuration. Except Docker uses up all inodes REALY fast so I'm still working on an optimal number for that.

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**Subject: Re: Docker into OpenVZ container**
**Posted by** [locara](mailto:locara) **on Tue, 15 Mar 2016 22:55:22 GMT**

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hello,
i have the same issue but with centos 7 it did not work i have on start container this Error:
CT-55555 /# docker start 12ed179e86a8
Error response from daemon: Cannot start container 12ed179e86a8: [8] System error: write /sys/fs/cgroup/cpuset/system.slice/docker-12ed179e86a8c5253e8b02d1f21edd82cb443a48575471a3654f55578323282f.scope/cgroup.procs: no space left on device
Error: failed to start containers: [12ed179e86a8]

Handler for POST /containers/{name:.*}/start returned error: Cannot start container
12ed179e86a8: [8] System error: write /sys/fs/cgroup/cpuset/system.slice/docker-12ed179e86a8c5253e8b02d1f21edd82cb443a48575471a3654f55578323282f.scope/cgroup.procs: no space left on device
ERRO[1198] HTTP Error err=Cannot start container 12ed179e86a8: [8] System error: write /sys/fs/cgroup/cpuset/system.slice/docker-12ed179e86a8c5253e8b02d1f21edd82cb443a48575471a3654f55578323282f.scope/cgroup.procs: no space left on device statusCode=500

I thin docker an Virtuozzo does work together. This is not was Marketing said.

Subject: Re: Docker into OpenVZ container
Posted by Ales on Wed, 23 Mar 2016 13:19:50 GMT
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So how many inodes did you assign to your VM?

Subject: Re: Docker into OpenVZ container
Posted by locara on Wed, 23 Mar 2016 13:28:15 GMT
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Hallo,

Thank for answer, i use one namenöde an two Datenode. But the issue is exactly i iwant to run the Container.

Subject: Re: Docker into OpenVZ container
Posted by Ales on Sat, 26 Mar 2016 21:25:44 GMT
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I think you misunderstood me. The "inode" is a very specific filesystem term. The amount of inodes is something you set for each container.

I haven't used docker and opennvz together, but I see tburazin mentioning large demand for inodes due to docker. The lack of inodes could quite possibly translate into device space errors so I would advise you to check how much inodes have you assigned to a container running docker and try assigning more.

Subject: Re: Docker into OpenVZ container
Posted by locara on Sun, 27 Mar 2016 06:47:49 GMT
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Thanks very much,

Where can I change this terms, in openVZ container?

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Subject: Re: Docker into OpenVZ container
Posted by tburazin on Sun, 27 Mar 2016 09:31:56 GMT

Hi locara,
the number of inodes is set per container. If you are experiencing a shortage of inodes you can check with the command:
vzctl exec CTID df -i

You can find some explanation regarding disk quotas here: https://openvz.org/Resource_shortage#Disk_quota
The command to change number of inodes is:
vzctl set CTID --diskinodes softlimit:hardlimit --save
eg:
vzctl set 101 --diskinodes 5000000:5500000 --save

The default size is 2000000:2200000 if I remember correctly and it's recommended to allocate 200000 inodes per GB hard drive (for softlimit) and 220000 inodes per GB hard drive (hardlimit)

You can go with a different amount, but be careful not to use up all your inodes on one container.