
Subject: Maximum number of processes / threads of the OpenVZ HN?

Posted by [markus](#) on Fri, 06 Nov 2009 15:55:44 GMT

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Hi all,

I'm trying to virtualize a Java based application using the OpenVZ framework. Unfortunately I'm running into a strange max number of process and / or threads problem I'm currently unable to explain. Since I've ran out of ideas where to search for potential bottlenecks I'd like to ask for some advice.

The machine (CentOS 5.4, 64bit, 64GB Ram, 2x Xeon X5450) is running ten containers as vzlist shows:

```
[root@office-vm01]# vzlist
CTID   NPROC STATUS IP_ADDR   HOSTNAME
4001   15 running 192.168.3.230 vdev-app01
4002   15 running 192.168.3.234 vdev-app02
4003   15 running 192.168.3.238 vdev-app03
4004   15 running 192.168.3.242 vdev-app04
4005   15 running 192.168.3.246 vdev-app05
4006   15 running 192.168.3.210 vdev-app06
4007   15 running 192.168.3.214 vdev-app07
4008   15 running 192.168.3.218 vdev-app08
4009   15 running 192.168.3.222 vdev-app09
4010   15 running 192.168.3.226 vdev-app10
```

Also /proc/user_beancounter is happy after the creation of the containers using the provided CentOS template of www.openvz.org:

```
4001: kmemsize    3548877 4540828 62914560000      69206016000 0
      lockedpages 0 9333    16384      16384 0
      privvmpages 8982 21381  2097152      2097152 0
      shmpages    31 31     21504      21504 0
      dummy      0 0      0          0 0
      numproc    15 20     16384      16384 0
      physpages  4581 11954    0 9223372036854775807 0
      vmguarpages 0 0     1572864 9223372036854775807 0
      oomguarpages 4581 11954  26112 9223372036854775807 0
      numtcpsock 7 8      2048      2048 0
      numflock   5 9      188       206 0
      numpty     0 0      16        16 0
      numsiginfo 0 3      256       256 0
      tcpsndbuf  122304 0 3440640    8719680 0
      tcprcvbuf  114688 754592 3440640    8719680 0
      othersockbuf 11600 26160 3440640    8719680 0
      dgramrcvbuf 0 8464  262144    262144 0
      numothersock 13 21    360       360 0
```

```

dcachesize      0    0  71516160      71516160 0
numfile         499  635  186240        186240 0
dummy           0    0    0            0 0
dummy           0    0    0            0 0
dummy           0    0    0            0 0
numiptent       20   20   128           128 0
4006: kmemsize   3544424 4458820 62914560000      69206016000 0
lockedpages     0   9333   16384          16384 0
privvmpages     9622  21228  2097152         2097152 0
shmpages        31   31   21504          21504 0
dummy           0    0    0            0 0
numproc         15   20   16384          16384 0
physpages       4584  11954    0 9223372036854775807 0
vmguarpages     0    0   1572864 9223372036854775807 0
oomguarpages    4584  11954   26112 9223372036854775807 0
numtcpsock      7    8   2048          2048 0
numflock        5    9   188           206 0
numpty          0    0   16           16 0
numsiginfo      0    3   256           256 0
tcpsndbuf       122304 0  3440640        8719680 0
tcprcvbuf       114688 875600  3440640        8719680 0
othersockbuf    11600 25376  3440640        8719680 0
dgramrcvbuf     0   8464   262144        262144 0
numothersock    13   21    360           360 0
dcachesize      0    0  71516160      71516160 0
numfile         499  640  186240        186240 0
dummy           0    0    0            0 0
dummy           0    0    0            0 0
dummy           0    0    0            0 0
numiptent       20   20   128           128 0

```

The limitations were changed to match the needs of the Java application which will need ~5,5GB ram so that the guaranteed memory was set to ~6GB and the dynamic ram to ~8GB.

I've picked container 4001 and 4006 on purpose since 4006 will be the container I'll run into the process and / or thread limit later. Here's the configuration file of container 4001:

```
[root@office-vm01 openVZ]# cat /etc/vz/conf/4001.conf
ONBOOT="yes"
```

```

# UBC parameters (in form of barrier:limit)
KMEMSIZE="6291456000:69206016000"
LOCKEDPAGES="16384:16384"
PRIVVMPAGES="2097152:2097152"
SHMPAGES="21504:21504"
NUMPROC="16384:16384"
PHYS_PAGES="0:9223372036854775807"
VMGUAR_PAGES="1572864:9223372036854775807"

```

```

OOMGUARPAGES="26112:9223372036854775807"
NUMTCPSOCK="2048:2048"
NUMFLOCK="188:206"
NUMPTY="16:16"
NUMSIGINFO="256:256"
TCPSNDBUF="3440640:8719680"
TCPRCVBUF="3440640:8719680"
OTHERSOCKBUF="3440640:8719680"
DGRAMRCVBUF="262144:262144"
NUMOTHERSOCK="360:360"
DCACHESIZE="71516160:71516160"
NUMFILE="186240:186240"
AVNUMPROC="180:180"
NUMIPTENT="128:128"

```

```

# Disk quota parameters (in form of softlimit:hardlimit)
DISKSPACE="20971520:20971520"
DISKINODES="200000:220000"
QUOTATIME="0"

```

```

# CPU fair sheduler parameter
CPUUNITS="10000"

```

```

IP_ADDRESS="192.168.3.230 192.168.3.231 192.168.3.232 192.168.3.233"
HOSTNAME="vdev-app01"
VE_ROOT="/vz/root/$VEID"
VE_PRIVATE="/vz/private/$VEID"
OSTEMPLATE="centos-5.4-x86_64"
ORIGIN_SAMPLE="vps.basic"
NAME="vdev01"
NAMESERVER="192.168.0.227 192.168.0.236"
NOATIME="yes"

```

Container 4006 has the exact same configuration expect the IP_ADDRESS variable. After I've deployed the Java application to all ten containers I have sometimes a failure count in the 'othersockbuf' that I can't explain since the 'maxheld' value was never as high as the 'barrier' and / or the 'limit' value:

```

4001: kmemsize    3614323 5913272 62914560000      69206016000 0
      lockedpages 0   9333   16384      16384 0
      privvmpages 8987 21381  2097152      2097152 0
      shmpages    31   687   21504      21504 0
      dummy       0    0     0           0 0
      numproc     15   22    16384      16384 0
      physpages   4599 11954      0 9223372036854775807 0
      vmguarpages 0     0   1572864 9223372036854775807 0
      oomguarpages 4599 11954   26112 9223372036854775807 0
      numtcpsock  7    11    2048      2048 0

```

```

numflock      5    9    188      206 0
numpty        0    0     16      16 0
numsigninfo   0    3    256      256 0
tcpsndbuf     122304 0 3440640      8719680 0
tcprcvbuf     114688 754592 3440640      8719680 0
othersockbuf  11600 1083344 3440640      8719680 0
dgramrcvbuf   0 8464 262144      262144 0
numothersock  13   29    360      360 0
dcachesize    0    0 71516160      71516160 0
numfile       511  697  186240      186240 0
dummy         0    0     0         0 0
dummy         0    0     0         0 0
dummy         0    0     0         0 0
numiptent     20   20    128      128 0
4006: kmemsize 3572403 5434118 62914560000      69206016000 0
lockedpages   0 9333  16384      16384 0
privvmpages   9627 21228 2097152      2097152 0
shmpages      31   687  21504      21504 0
dummy         0    0     0         0 0
numproc       15   22  16384      16384 0
physpages     4603 11954      0 9223372036854775807 0
vmguarpages   0    0  1572864 9223372036854775807 0
oomguarpages  4603 11954  26112 9223372036854775807 0
numtcpsock    7    11   2048      2048 0
numflock      5    9    188      206 0
numpty        0    0     16      16 0
numsigninfo   0    3    256      256 0
tcpsndbuf     122304 0 3440640      8719680 0
tcprcvbuf     114688 875600 3440640      8719680 0
othersockbuf  11600 2265168 3440640      8719680 1
dgramrcvbuf   0 8464 262144      262144 0
numothersock  13   29    360      360 0
dcachesize    0    0 71516160      71516160 0
numfile       512  699  186240      186240 0
dummy         0    0     0         0 0
dummy         0    0     0         0 0
dummy         0    0     0         0 0
numiptent     20   20    128      128 0

```

After that I've started the Java application in the 4001 -> 4005 containers without any problems. vzlist shows that those containers are running some more processes and threads:

```

[root@office-vm01]# vzlist
CTID  NPROC STATUS IP_ADDR  HOSTNAME
4001   3102 running 192.168.3.230 vdev-app01
4002   3102 running 192.168.3.234 vdev-app02
4003   3105 running 192.168.3.238 vdev-app03
4004   3092 running 192.168.3.242 vdev-app04

```

```

4005    3096 running 192.168.3.246  vdev-app05
4006     15 running 192.168.3.210  vdev-app06
4007     15 running 192.168.3.214  vdev-app07
4008     15 running 192.168.3.218  vdev-app08
4009     15 running 192.168.3.222  vdev-app09
4010     15 running 192.168.3.226  vdev-app10

```

Also the /proc/user_beancounter for container 4001 is showing some load but no higher failure count numbers:

```

4001: kmemsize    102811303 106541747 62914560000      69206016000 0
      lockedpages    0    9333    16384      16384 0
      privvmpages    1439585 1649118    2097152      2097152 0
      shmpages       671     687    21504      21504 0
      dummy          0     0     0          0 0
      numproc        3102    3207    16384      16384 0
      physpages      530784 550932      0 9223372036854775807 0
      vmguarpages    0     0    1572864 9223372036854775807 0
      oomguarpages   530784 550932    26112 9223372036854775807 0
      numtcpsock     915    1028    2048      2048 0
      numflock        6     9     188        206 0
      numpty          1     1     16         16 0
      numsiginfo      0     3     256        256 0
      tcpsndbuf       495328 778976    3440640      8719680 0
      tcprcvbuf       428944 1115152    3440640      8719680 0
      othersockbuf    16240 1083344    3440640      8719680 0
      dgramrcvbuf     0    8464    262144      262144 0
      numothersock    22     29     360        360 0
      dcachesize      0     0    71516160    71516160 0
      numfile         55559 58090    186240      186240 0
      dummy           0     0     0          0 0
      dummy           0     0     0          0 0
      dummy           0     0     0          0 0
      numiptent       20    20     128        128 0
4006: kmemsize    3561586 5434118 62914560000      69206016000 0
      lockedpages    0    9333    16384      16384 0
      privvmpages    9627    21228    2097152      2097152 0
      shmpages       31     687    21504      21504 0
      dummy          0     0     0          0 0
      numproc        15     22    16384      16384 0
      physpages      4615    11954      0 9223372036854775807 0
      vmguarpages    0     0    1572864 9223372036854775807 0
      oomguarpages   4615    11954    26112 9223372036854775807 0
      numtcpsock      7     11    2048      2048 0
      numflock        5     9     188        206 0
      numpty          0     0     16         16 0
      numsiginfo      0     3     256        256 0
      tcpsndbuf      122304      0    3440640      8719680 0

```

tcprcvbuf	114688	875600	3440640	8719680 0
othersockbuf	11600	2265168	3440640	8719680 1
dgramrcvbuf	0	8464	262144	262144 0
numothersock	13	29	360	360 0
dcachesize	0	0	71516160	71516160 0
numfile	512	699	186240	186240 0
dummy	0	0	0	0 0
dummy	0	0	0	0 0
dummy	0	0	0	0 0
numiptent	20	20	128	128 0

If I now try to start the Java application on the 4006 container I'll run into this strange process / thread limitation which is somehow coming from the HN itself. The limit is not visible via the /proc/user_beancounter file. The easiest way to show you what I'm talking about is to show you the output of executing 'cat /proc/user_beancounters' in a ~1sec interval inside the container that currently tries to launch the Java application:

```
[root@vdev-app06 /]# cat /proc/user_beancounters
```

```
Version: 2.5
```

uid resource	held	maxheld	barrier	limit	failcnt
4006: kmemsize	11179878	14772652	62914560000	69206016000	0
lockedpages	0	9333	16384	16384	0
privvmpages	233420	645795	2097152	2097152	0
shmpages	671	687	21504	21504	0
dummy	0	0	0	0	0
numproc	170	223	16384	16384	0
physpages	56469	57822	0	9223372036854775807	0
vmguarpages	0	0	1572864	9223372036854775807	0
oomguarpages	56469	57822	26112	9223372036854775807	0
numtcpsock	44	44	2048	2048	0
numflock	5	9	188	206	0
numpty	2	2	16	16	0
numsiginfo	0	3	256	256	0
tcpsndbuf	428880	528320	3440640	8719680	0
tcprcvbuf	429568	875600	3440640	8719680	0
othersockbuf	16240	2265168	3440640	8719680	1
dgramrcvbuf	0	8464	262144	262144	0
numothersock	20	29	360	360	0
dcachesize	0	0	71516160	71516160	0
numfile	5146	6016	186240	186240	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
numiptent	20	20	128	128	0

```
[root@vdev-app06 /]# cat /proc/user_beancounters
```

```
-bash: fork: Resource temporarily unavailable
```

```
[root@vdev-app06 /]# cat /proc/user_beancounters
```

```
Version: 2.5
```

uid	resource	held	maxheld	barrier	limit	failcnt
4006:	kmemsize	13195939	15401866	62914560000	69206016000	0
	lockedpages	0	9333	16384	16384	0
	privvmpages	286459	645795	2097152	2097152	0
	shmpages	671	687	21504	21504	0
	dummy	0	0	0	0	0
	numproc	218	223	16384	16384	0
	physpages	71961	71961	0	9223372036854775807	0
	vmguarpages	0	0	1572864	9223372036854775807	0
	oomguarpages	71961	71961	26112	9223372036854775807	0
	numtcpsock	51	54	2048	2048	0
	numflock	5	9	188	206	0
	numpty	2	2	16	16	0
	numsiginfo	0	28	256	256	0
	tcpsndbuf	426288	528320	3440640	8719680	0
	tcprcvbuf	429568	875600	3440640	8719680	0
	othersockbuf	16240	2265168	3440640	8719680	1
	dgramrcvbuf	0	8464	262144	262144	0
	numothersock	20	29	360	360	0
	dcachesize	0	0	71516160	71516160	0
	numfile	6627	6961	186240	186240	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	numiptent	20	20	128	128	0

vzlist shows that container 4006 was able to start ~200 processes and threads and was not able to acquire more:

```
[root@office-vm01]# vzlist
CTID   NPROC STATUS IP_ADDR   HOSTNAME
4001   3100 running 192.168.3.230 vdev-app01
4002   3101 running 192.168.3.234 vdev-app02
4003   3105 running 192.168.3.238 vdev-app03
4004   3100 running 192.168.3.242 vdev-app04
4005   3096 running 192.168.3.246 vdev-app05
4006   212 running 192.168.3.210 vdev-app06
4007    15 running 192.168.3.214 vdev-app07
4008    15 running 192.168.3.218 vdev-app08
4009    15 running 192.168.3.222 vdev-app09
4010    15 running 192.168.3.226 vdev-app10
```

'top' inside the 4006 container also doesn't show any memory problems:

```
top - 17:40:41 up 1:50, 1 user, load average: 0.10, 0.05, 0.01
Tasks: 21 total, 1 running, 20 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.0%us, 0.1%sy, 0.0%ni, 99.9%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 8388608k total, 704544k used, 7684064k free, 0k buffers
```

Swap: 0k total, 0k used, 0k free, 0k cached

That's the problem I currently stuck with. I don't understand where this limitation is coming from and what I can do to solve it. I assume that the limitation is somehow coming from the OpenVZ HN itself since I get the same bash fork() errors on the host itself if it's reaching this limitation.

Does someone have an idea what I should focus on to solve this?

Here are some further settings of the HN:

```
[root@office-vm01]# cat /etc/redhat-release
CentOS release 5.4 (Final)
[root@office-vm01]# uname -a
Linux office-vm01 2.6.18-128.2.1.el5.028stab064.7 #1 SMP Wed Aug 26 15:47:17 MSD 2009
x86_64 x86_64 x86_64 GNU/Linux
```

```
[root@office-vm01]# top
top - 15:40:16 up 3:51, 1 user, load average: 0.96, 0.76, 0.73
Tasks: 488 total, 1 running, 487 sleeping, 0 stopped, 0 zombie
Cpu(s): 1.8%us, 1.2%sy, 0.0%ni, 96.4%id, 0.0%wa, 0.0%hi, 0.6%si, 0.0%st
Mem: 64840324k total, 29940884k used, 34899440k free, 776176k buffers
Swap: 134215032k total, 0k used, 134215032k free, 16187164k cached
```

```
[root@office-vm01]# ulimit -a
core file size          (blocks, -c) 0
data seg size           (kbytes, -d) unlimited
scheduling priority     (-e) 0
file size               (blocks, -f) unlimited
pending signals         (-i) 522240
max locked memory       (kbytes, -l) 32
max memory size         (kbytes, -m) unlimited
open files              (-n) 40960
pipe size               (512 bytes, -p) 8
POSIX message queues    (bytes, -q) 819200
real-time priority      (-r) 0
stack size              (kbytes, -s) 10240
cpu time                (seconds, -t) unlimited
max user processes      (-u) 16384
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited
```

```
[root@office-vm01]# cat /etc/security/limits.conf
* soft nfile 40960
* hard nfile 40960

* soft nproc 16384
* hard nproc 16384
```

```
[root@office-vm01]# cat /proc/sys/kernel/sem
250 32000 32 128
```

```
[root@office-vm01]# cat /proc/sys/kernel/shmall
4294967296
```

```
[root@office-vm01]# cat /proc/sys/kernel/shmmax
68719476736
```

```
[root@office-vm01]# cat /proc/sys/kernel/shmmni
4096
```

```
[root@office-vm01]# sysctl -a
sunrpc.rpc_src_addr = 0
sunrpc.abort_timeout = 2147483647
sunrpc.max_resvport = 1023
sunrpc.min_resvport = 665
sunrpc.tcp_slot_table_entries = 16
sunrpc.udp_slot_table_entries = 16
sunrpc.nlm_debug = 0
sunrpc.nfsd_debug = 0
sunrpc.nfs_debug = 0
sunrpc.rpc_debug = 0
dev.parport.default.spintime = 500
dev.parport.default.timeslice = 200
dev.cdrom.check_media = 0
dev.cdrom.lock = 1
dev.cdrom.debug = 0
dev.cdrom.autoeject = 0
dev.cdrom.autoclose = 1
dev.cdrom.info = CD-ROM information, Id: cdrom.c 3.20 2003/12/17
dev.cdrom.info =
dev.cdrom.info = drive name: sr0
dev.cdrom.info = drive speed: 24
dev.cdrom.info = drive # of slots: 1
dev.cdrom.info = Can close tray: 1
dev.cdrom.info = Can open tray: 1
dev.cdrom.info = Can lock tray: 1
dev.cdrom.info = Can change speed: 1
dev.cdrom.info = Can select disk: 0
dev.cdrom.info = Can read multisession: 1
dev.cdrom.info = Can read MCN: 1
dev.cdrom.info = Reports media changed: 1
dev.cdrom.info = Can play audio: 1
dev.cdrom.info = Can write CD-R: 0
dev.cdrom.info = Can write CD-RW: 0
dev.cdrom.info = Can read DVD: 1
dev.cdrom.info = Can write DVD-R: 0
```

dev.cdrom.info = Can write DVD-RAM: 0
dev.cdrom.info = Can read MRW: 1
dev.cdrom.info = Can write MRW: 1
dev.cdrom.info = Can write RAM: 1
dev.cdrom.info =
dev.cdrom.info =
dev.scsi.logging_level = 0
dev.raid.speed_limit_max = 200000
dev.raid.speed_limit_min = 1000
dev.hpet.max-user-freq = 64
dev.rtc.max-user-freq = 64
crypto.fips_enabled = 0
ubc.dentry_watermark = 0 100
ubc.dentry_check = 10
abi.vsyscall32 = 0
kernel.ve_allow_kthreads = 1
kernel.vsyscall64 = 1
kernel./dummy-pde = 0
kernel.grsecurity.grsec_lock = 0
kernel.grsecurity.tpe_restrict_all = 0
kernel.grsecurity.tpe_gid = 0
kernel.grsecurity.tpe = 0
kernel.max_lock_depth = 1024
kernel.compat-log = 1
kernel.randomize_va_space = 1
kernel.bootloader_type = 113
kernel.panic_on_unrecovered_nmi = 0
kernel.unknown_nmi_panic = 0
kernel.ngroups_max = 65536
kernel.printk_ratelimit_burst = 10
kernel.printk_ratelimit = 5
kernel.panic_on_oops = 1
kernel.ve_meminfo = 0
kernel.virt_pids = 1
kernel.pid_max = 32768
kernel.fairsched-max-latency = 25
kernel.vcpu_timeslice = -1
kernel.vcpu_sched_timeslice = 5
kernel.overflowgid = 65534
kernel.overflowuid = 65534
kernel.ptty.nr = 1
kernel.ptty.max = 4096
kernel.random.uuid = 3bc7d61c-0524-4349-894f-61913953cc09
kernel.random.boot_id = 8dc5d53b-81e0-4406-8868-5cf3c1c735bd
kernel.random.write_wakeup_threshold = 128
kernel.random.read_wakeup_threshold = 64
kernel.random.entropy_avail = 175
kernel.random.poolsize = 4096

kernel.threads-max = 2044480
kernel.cad_pid = 1
kernel.sysrq-key = 99
kernel.vcpu_hot_timeslice = 4
kernel.sysrq = 1
kernel.sem = 250 32000 32 128
kernel.msgmnb = 65536
kernel.msgmni = 16
kernel.msgmax = 65536
kernel.shmmni = 4096
kernel.shmall = 4294967296
kernel.shmmax = 68719476736
kernel.acct = 4 2 30
kernel.hotplug =
kernel.modprobe = /sbin/modprobe
kernel.printk = 6 4 1 7
kernel.ctrl-alt-del = 0
kernel.alloc_fail_warn = 0
kernel.silence-level = 0
kernel.real-root-dev = 0
kernel.cap-bound = -257
kernel.tainted = 65
kernel.core_pattern = core
kernel.core_uses_pid = 1
kernel.print-fatal-signals = 0
kernel.exec-shield = 1
kernel.panic = 0
kernel.virt_osrelease = 2.6.18-128.2.1.el5.028stab064.7
kernel.domainname = (none)
kernel.hostname = office-vm01
kernel.version = #1 SMP Wed Aug 26 15:47:17 MSD 2009
kernel.osrelease = 2.6.18-128.2.1.el5.028stab064.7
kernel.ostype = Linux
kernel.sched_interactive = 2
fs.nfs.nfs_mountpoint_timeout = 500
fs.nfs.idmap_cache_timeout = 600
fs.nfs.nfs_callback_tcpport = 0
fs.nfs.nlm_tcpport = 0
fs.nfs.nlm_udpport = 0
fs.nfs.nlm_timeout = 10
fs.nfs.nlm_grace_period = 0
fs.mqueue.msgsize_max = 8192
fs.mqueue.msg_max = 10
fs.mqueue.queues_max = 256
fs.quota.warnings = 1
fs.quota.syncs = 629
fs.quota.free_dquots = 0
fs.quota.allocated_dquots = 0

```
fs.quota.cache_hits = 0
fs.quota.writes = 0
fs.quota.reads = 0
fs.quota.drops = 0
fs.quota.lookups = 0
fs.fsync-enable = 1
fs.ve-xattr-policy = 0
fs.ve-area-access-check = 0
fs.lsyscall_enable = 1
fs.snapapi_enable = 1
fs.odirect_enable = 0
fs.vsyscall = 0
fs.suid_dumpable = 0
fs.inotify.max_queued_events = 16384
fs.inotify.max_user_watches = 8192
fs.inotify.max_user_instances = 128
fs.aio-max-nr = 65536
fs.aio-nr = 0
fs.lease-break-time = 45
fs.dir-notify-enable = 1
fs.leases-enable = 1
fs.overflowgid = 65534
fs.overflowuid = 65534
fs.dentry-state = 211977 198168 45 0 0 0
fs.file-max = 6383212
fs.file-nr = 1020 0 6383212
fs.inode-state = 467345 267053 0 0 0 0 0
fs.inode-nr = 467345 267053
fs.binfmt_misc.status = enablednet.ipv6.conf.default.router_probe_interval = 60
net.ipv6.conf.default.accept_ra_rtr_pref = 1
net.ipv6.conf.default.accept_ra_pinfo = 1
net.ipv6.conf.default.accept_ra_defrtr = 1
net.ipv6.conf.default.max_addresses = 16
net.ipv6.conf.default.max_desync_factor = 600
net.ipv6.conf.default.regen_max_retry = 5
net.ipv6.conf.default.temp_preferred_lft = 86400
net.ipv6.conf.default.temp_valid_lft = 604800
net.ipv6.conf.default.use_tempaddr = 0
net.ipv6.conf.default.accept_dad = 1
net.ipv6.conf.default.disable_ipv6 = 0
net.ipv6.conf.default.force_mld_version = 0
net.ipv6.conf.default.router_solicitation_delay = 1
net.ipv6.conf.default.router_solicitation_interval = 4
net.ipv6.conf.default.router_solicitations = 3
net.ipv6.conf.default.dad_transmits = 1
net.ipv6.conf.default.autoconf = 1
net.ipv6.conf.default.accept_redirects = 1
net.ipv6.conf.default.accept_ra = 1
```

```
net.ipv6.conf.default.mtu = 1280
net.ipv6.conf.default.hop_limit = 64
net.ipv6.conf.default.forwarding = 1
net.ipv6.conf.all.router_probe_interval = 60
net.ipv6.conf.all.accept_ra_rtr_pref = 1
net.ipv6.conf.all.accept_ra_pinfo = 1
net.ipv6.conf.all.accept_ra_defrtr = 1
net.ipv6.conf.all.max_addresses = 16
net.ipv6.conf.all.max_desync_factor = 600
net.ipv6.conf.all.regen_max_retry = 5
net.ipv6.conf.all.temp_preferred_lft = 86400
net.ipv6.conf.all.temp_valid_lft = 604800
net.ipv6.conf.all.use_tempaddr = 0
net.ipv6.conf.all.accept_dad = 1
net.ipv6.conf.all.disable_ipv6 = 0
net.ipv6.conf.all.force_mld_version = 0
net.ipv6.conf.all.router_solicitation_delay = 1
net.ipv6.conf.all.router_solicitation_interval = 4
net.ipv6.conf.all.router_solicitations = 3
net.ipv6.conf.all.dad_transmits = 1
net.ipv6.conf.all.autoconf = 1
net.ipv6.conf.all.accept_redirects = 1
net.ipv6.conf.all.accept_ra = 1
net.ipv6.conf.all.mtu = 1280
net.ipv6.conf.all.hop_limit = 64
net.ipv6.conf.all.forwarding = 1
net.ipv6.conf.eth0.router_probe_interval = 60
net.ipv6.conf.eth0.accept_ra_rtr_pref = 1
net.ipv6.conf.eth0.accept_ra_pinfo = 1
net.ipv6.conf.eth0.accept_ra_defrtr = 1
net.ipv6.conf.eth0.max_addresses = 16
net.ipv6.conf.eth0.max_desync_factor = 600
net.ipv6.conf.eth0.regen_max_retry = 5
net.ipv6.conf.eth0.temp_preferred_lft = 86400
net.ipv6.conf.eth0.temp_valid_lft = 604800
net.ipv6.conf.eth0.use_tempaddr = 0
net.ipv6.conf.eth0.accept_dad = 1
net.ipv6.conf.eth0.disable_ipv6 = 0
net.ipv6.conf.eth0.force_mld_version = 0
net.ipv6.conf.eth0.router_solicitation_delay = 1
net.ipv6.conf.eth0.router_solicitation_interval = 4
net.ipv6.conf.eth0.router_solicitations = 3
net.ipv6.conf.eth0.dad_transmits = 1
net.ipv6.conf.eth0.autoconf = 1
net.ipv6.conf.eth0.accept_redirects = 1
net.ipv6.conf.eth0.accept_ra = 1
net.ipv6.conf.eth0.mtu = 1500
net.ipv6.conf.eth0.hop_limit = 64
```

```
net.ipv6.conf.eth0.forwarding = 1
net.ipv6.conf.lo.router_probe_interval = 60
net.ipv6.conf.lo.accept_ra_rtr_pref = 1
net.ipv6.conf.lo.accept_ra_pinfo = 1
net.ipv6.conf.lo.accept_ra_defrtr = 1
net.ipv6.conf.lo.max_addresses = 16
net.ipv6.conf.lo.max_desync_factor = 600
net.ipv6.conf.lo.regen_max_retry = 5
net.ipv6.conf.lo.temp_preferred_lft = 86400
net.ipv6.conf.lo.temp_valid_lft = 604800
net.ipv6.conf.lo.use_tempaddr = -1
net.ipv6.conf.lo.accept_dad = 1
net.ipv6.conf.lo.disable_ipv6 = 0
net.ipv6.conf.lo.force_mld_version = 0
net.ipv6.conf.lo.router_solicitation_delay = 1
net.ipv6.conf.lo.router_solicitation_interval = 4
net.ipv6.conf.lo.router_solicitations = 3
net.ipv6.conf.lo.dad_transmits = 1
net.ipv6.conf.lo.autoconf = 1
net.ipv6.conf.lo.accept_redirects = 1
net.ipv6.conf.lo.accept_ra = 1
net.ipv6.conf.lo.mtu = 16436
net.ipv6.conf.lo.hop_limit = 64
net.ipv6.conf.lo.forwarding = 1
net.ipv6.neigh.eth0.base_reachable_time_ms = 30000
net.ipv6.neigh.eth0.retrans_time_ms = 1000
net.ipv6.neigh.eth0.locktime = 0
net.ipv6.neigh.eth0.proxy_delay = 79
net.ipv6.neigh.eth0.anycast_delay = 99
net.ipv6.neigh.eth0.proxy_qlen = 64
net.ipv6.neigh.eth0.unres_qlen = 3
net.ipv6.neigh.eth0.gc_stale_time = 60
net.ipv6.neigh.eth0.delay_first_probe_time = 5
net.ipv6.neigh.eth0.base_reachable_time = 30
net.ipv6.neigh.eth0.retrans_time = 1000
net.ipv6.neigh.eth0.app_solicit = 0
net.ipv6.neigh.eth0.ucast_solicit = 3
net.ipv6.neigh.eth0.mcast_solicit = 3
net.ipv6.neigh.lo.base_reachable_time_ms = 30000
net.ipv6.neigh.lo.retrans_time_ms = 1000
net.ipv6.neigh.lo.locktime = 0
net.ipv6.neigh.lo.proxy_delay = 79
net.ipv6.neigh.lo.anycast_delay = 99
net.ipv6.neigh.lo.proxy_qlen = 64
net.ipv6.neigh.lo.unres_qlen = 3
net.ipv6.neigh.lo.gc_stale_time = 60
net.ipv6.neigh.lo.delay_first_probe_time = 5
net.ipv6.neigh.lo.base_reachable_time = 30
```

```
net.ipv6.neigh.lo.retrans_time = 1000
net.ipv6.neigh.lo.app_solicit = 0
net.ipv6.neigh.lo.ucast_solicit = 3
net.ipv6.neigh.lo.mcast_solicit = 3
net.ipv6.neigh.default.base_reachable_time_ms = 30000
net.ipv6.neigh.default.retrans_time_ms = 1000
net.ipv6.neigh.default.gc_thresh3 = 1024
net.ipv6.neigh.default.gc_thresh2 = 512
net.ipv6.neigh.default.gc_thresh1 = 128
net.ipv6.neigh.default.gc_interval = 30
net.ipv6.neigh.default.locktime = 0
net.ipv6.neigh.default.proxy_delay = 79
net.ipv6.neigh.default.anycast_delay = 99
net.ipv6.neigh.default.proxy_qlen = 64
net.ipv6.neigh.default.unres_qlen = 3
net.ipv6.neigh.default.gc_stale_time = 60
net.ipv6.neigh.default.delay_first_probe_time = 5
net.ipv6.neigh.default.base_reachable_time = 30
net.ipv6.neigh.default.retrans_time = 1000
net.ipv6.neigh.default.app_solicit = 0
net.ipv6.neigh.default.ucast_solicit = 3
net.ipv6.neigh.default.mcast_solicit = 3
net.ipv6.optimistic_dad = 0
net.ipv6.mld_max_msf = 64
net.ipv6.ip6frag_secret_interval = 600
net.ipv6.ip6frag_time = 60
net.ipv6.ip6frag_low_thresh = 196608
net.ipv6.ip6frag_high_thresh = 262144
net.ipv6.bindv6only = 0
net.ipv6.icmp.ratelimit = 1000
net.ipv6.route.gc_min_interval_ms = 500
net.ipv6.route.min_adv_mss = 1
net.ipv6.route.mtu_expires = 600
net.ipv6.route.gc_elasticity = 0
net.ipv6.route.gc_interval = 30
net.ipv6.route.gc_timeout = 60
net.ipv6.route.gc_min_interval = 0
net.ipv6.route.max_size = 4096
net.ipv6.route.gc_thresh = 1024
net.unix.max_dgram_qlen = 10
net.ipv4.ip_conntrack_max = 65536
net.ipv4.netfilter.ip_conntrack_tcp_max_retrans = 3
net.ipv4.netfilter.ip_conntrack_tcp_be_liberal = 0
net.ipv4.netfilter.ip_conntrack_tcp_loose = 1
net.ipv4.netfilter.ip_conntrack_tcp_timeout_max_retrans = 300
net.ipv4.netfilter.ip_conntrack_log_invalid = 0
net.ipv4.netfilter.ip_conntrack_generic_timeout = 600
net.ipv4.netfilter.ip_conntrack_icmp_timeout = 30
```

```
net.ipv4.netfilter.ip_conntrack_udp_timeout_stream = 180
net.ipv4.netfilter.ip_conntrack_udp_timeout = 30
net.ipv4.netfilter.ip_conntrack_tcp_timeout_close = 10
net.ipv4.netfilter.ip_conntrack_tcp_timeout_time_wait = 120
net.ipv4.netfilter.ip_conntrack_tcp_timeout_last_ack = 30
net.ipv4.netfilter.ip_conntrack_tcp_timeout_close_wait = 60
net.ipv4.netfilter.ip_conntrack_tcp_timeout_fin_wait = 120
net.ipv4.netfilter.ip_conntrack_tcp_timeout_established = 432000
net.ipv4.netfilter.ip_conntrack_tcp_timeout_syn_recv = 60
net.ipv4.netfilter.ip_conntrack_tcp_timeout_syn_sent = 120
net.ipv4.netfilter.ip_conntrack_checksum = 1
net.ipv4.netfilter.ip_conntrack_buckets = 8192
net.ipv4.netfilter.ip_conntrack_count = 262
net.ipv4.netfilter.ip_conntrack_max = 65536
net.ipv4.conf.venet0.promote_secondaries = 0
net.ipv4.conf.venet0.force_igmp_version = 0
net.ipv4.conf.venet0.disable_policy = 0
net.ipv4.conf.venet0.disable_xfrm = 0
net.ipv4.conf.venet0.arp_accept = 0
net.ipv4.conf.venet0.arp_ignore = 0
net.ipv4.conf.venet0.arp_announce = 0
net.ipv4.conf.venet0.arp_filter = 0
net.ipv4.conf.venet0.tag = 0
net.ipv4.conf.venet0.log_martians = 0
net.ipv4.conf.venet0.bootp_relay = 0
net.ipv4.conf.venet0.medium_id = 0
net.ipv4.conf.venet0.proxy_arp = 0
net.ipv4.conf.venet0.accept_source_route = 0
net.ipv4.conf.venet0.send_redirects = 0
net.ipv4.conf.venet0.rp_filter = 1
net.ipv4.conf.venet0.shared_media = 1
net.ipv4.conf.venet0.secure_redirects = 1
net.ipv4.conf.venet0.accept_redirects = 1
net.ipv4.conf.venet0.mc_forwarding = 0
net.ipv4.conf.venet0.forwarding = 1
net.ipv4.conf.eth0.promote_secondaries = 0
net.ipv4.conf.eth0.force_igmp_version = 0
net.ipv4.conf.eth0.disable_policy = 0
net.ipv4.conf.eth0.disable_xfrm = 0
net.ipv4.conf.eth0.arp_accept = 0
net.ipv4.conf.eth0.arp_ignore = 0
net.ipv4.conf.eth0.arp_announce = 0
net.ipv4.conf.eth0.arp_filter = 0
net.ipv4.conf.eth0.tag = 0
net.ipv4.conf.eth0.log_martians = 0
net.ipv4.conf.eth0.bootp_relay = 0
net.ipv4.conf.eth0.medium_id = 0
net.ipv4.conf.eth0.proxy_arp = 0
```

```
net.ipv4.conf.eth0.accept_source_route = 0
net.ipv4.conf.eth0.send_redirects = 1
net.ipv4.conf.eth0.rp_filter = 1
net.ipv4.conf.eth0.shared_media = 1
net.ipv4.conf.eth0.secure_redirects = 1
net.ipv4.conf.eth0.accept_redirects = 1
net.ipv4.conf.eth0.mc_forwarding = 0
net.ipv4.conf.eth0.forwarding = 1
net.ipv4.conf.lo.promote_secondaries = 0
net.ipv4.conf.lo.force_igmp_version = 0
net.ipv4.conf.lo.disable_policy = 1
net.ipv4.conf.lo.disable_xfrm = 1
net.ipv4.conf.lo.arp_accept = 0
net.ipv4.conf.lo.arp_ignore = 0
net.ipv4.conf.lo.arp_announce = 0
net.ipv4.conf.lo.arp_filter = 0
net.ipv4.conf.lo.tag = 0
net.ipv4.conf.lo.log_martians = 0
net.ipv4.conf.lo.bootp_relay = 0
net.ipv4.conf.lo.medium_id = 0
net.ipv4.conf.lo.proxy_arp = 0
net.ipv4.conf.lo.accept_source_route = 1
net.ipv4.conf.lo.send_redirects = 1
net.ipv4.conf.lo.rp_filter = 0
net.ipv4.conf.lo.shared_media = 1
net.ipv4.conf.lo.secure_redirects = 1
net.ipv4.conf.lo.accept_redirects = 1
net.ipv4.conf.lo.mc_forwarding = 0
net.ipv4.conf.lo.forwarding = 1
net.ipv4.conf.default.promote_secondaries = 0
net.ipv4.conf.default.force_igmp_version = 0
net.ipv4.conf.default.disable_policy = 0
net.ipv4.conf.default.disable_xfrm = 0
net.ipv4.conf.default.arp_accept = 0
net.ipv4.conf.default.arp_ignore = 0
net.ipv4.conf.default.arp_announce = 0
net.ipv4.conf.default.arp_filter = 0
net.ipv4.conf.default.tag = 0
net.ipv4.conf.default.log_martians = 0
net.ipv4.conf.default.bootp_relay = 0
net.ipv4.conf.default.medium_id = 0
net.ipv4.conf.default.proxy_arp = 0
net.ipv4.conf.default.accept_source_route = 0
net.ipv4.conf.default.send_redirects = 1
net.ipv4.conf.default.rp_filter = 1
net.ipv4.conf.default.shared_media = 1
net.ipv4.conf.default.secure_redirects = 1
net.ipv4.conf.default.accept_redirects = 1
```

```
net.ipv4.conf.default.mc_forwarding = 0
net.ipv4.conf.default.forwarding = 1
net.ipv4.conf.all.promote_secondaries = 0
net.ipv4.conf.all.force_igmp_version = 0
net.ipv4.conf.all.disable_policy = 0
net.ipv4.conf.all.disable_xfrm = 0
net.ipv4.conf.all.arp_accept = 0
net.ipv4.conf.all.arp_ignore = 0
net.ipv4.conf.all.arp_announce = 0
net.ipv4.conf.all.arp_filter = 0
net.ipv4.conf.all.tag = 0
net.ipv4.conf.all.log_martians = 0
net.ipv4.conf.all.bootp_relay = 0
net.ipv4.conf.all.medium_id = 0
net.ipv4.conf.all.proxy_arp = 0
net.ipv4.conf.all.accept_source_route = 0
net.ipv4.conf.all.send_redirects = 0
net.ipv4.conf.all.rp_filter = 1
net.ipv4.conf.all.shared_media = 1
net.ipv4.conf.all.secure_redirects = 1
net.ipv4.conf.all.accept_redirects = 0
net.ipv4.conf.all.mc_forwarding = 0
net.ipv4.conf.all.forwarding = 1
net.ipv4.neigh.venet0.base_reachable_time_ms = 30000
net.ipv4.neigh.venet0.retrans_time_ms = 1000
net.ipv4.neigh.venet0.locktime = 99
net.ipv4.neigh.venet0.proxy_delay = 79
net.ipv4.neigh.venet0.anycast_delay = 99
net.ipv4.neigh.venet0.proxy_qlen = 64
net.ipv4.neigh.venet0.unres_qlen = 3
net.ipv4.neigh.venet0.gc_stale_time = 60
net.ipv4.neigh.venet0.delay_first_probe_time = 5
net.ipv4.neigh.venet0.base_reachable_time = 30
net.ipv4.neigh.venet0.retrans_time = 99
net.ipv4.neigh.venet0.app_solicit = 0
net.ipv4.neigh.venet0.ucast_solicit = 3
net.ipv4.neigh.venet0.mcast_solicit = 3
net.ipv4.neigh.eth0.base_reachable_time_ms = 30000
net.ipv4.neigh.eth0.retrans_time_ms = 1000
net.ipv4.neigh.eth0.locktime = 99
net.ipv4.neigh.eth0.proxy_delay = 79
net.ipv4.neigh.eth0.anycast_delay = 99
net.ipv4.neigh.eth0.proxy_qlen = 64
net.ipv4.neigh.eth0.unres_qlen = 3
net.ipv4.neigh.eth0.gc_stale_time = 60
net.ipv4.neigh.eth0.delay_first_probe_time = 5
net.ipv4.neigh.eth0.base_reachable_time = 30
net.ipv4.neigh.eth0.retrans_time = 99
```

```
net.ipv4.neigh.eth0.app_solicit = 0
net.ipv4.neigh.eth0.ucast_solicit = 3
net.ipv4.neigh.eth0.mcast_solicit = 3
net.ipv4.neigh.lo.base_reachable_time_ms = 30000
net.ipv4.neigh.lo.retrans_time_ms = 1000
net.ipv4.neigh.lo.locktime = 99
net.ipv4.neigh.lo.proxy_delay = 79
net.ipv4.neigh.lo.anycast_delay = 99
net.ipv4.neigh.lo.proxy_qlen = 64
net.ipv4.neigh.lo.unres_qlen = 3
net.ipv4.neigh.lo.gc_stale_time = 60
net.ipv4.neigh.lo.delay_first_probe_time = 5
net.ipv4.neigh.lo.base_reachable_time = 30
net.ipv4.neigh.lo.retrans_time = 99
net.ipv4.neigh.lo.app_solicit = 0
net.ipv4.neigh.lo.ucast_solicit = 3
net.ipv4.neigh.lo.mcast_solicit = 3
net.ipv4.neigh.default.base_reachable_time_ms = 30000
net.ipv4.neigh.default.retrans_time_ms = 1000
net.ipv4.neigh.default.gc_thresh3 = 1024
net.ipv4.neigh.default.gc_thresh2 = 512
net.ipv4.neigh.default.gc_thresh1 = 128
net.ipv4.neigh.default.gc_interval = 30
net.ipv4.neigh.default.locktime = 99
net.ipv4.neigh.default.proxy_delay = 79
net.ipv4.neigh.default.anycast_delay = 99
net.ipv4.neigh.default.proxy_qlen = 64
net.ipv4.neigh.default.unres_qlen = 3
net.ipv4.neigh.default.gc_stale_time = 60
net.ipv4.neigh.default.delay_first_probe_time = 5
net.ipv4.neigh.default.base_reachable_time = 30
net.ipv4.neigh.default.retrans_time = 99
net.ipv4.neigh.default.app_solicit = 0
net.ipv4.neigh.default.ucast_solicit = 3
net.ipv4.neigh.default.mcast_solicit = 3
net.ipv4.route.src_check = 0
net.ipv4.route.secret_interval = 600
net.ipv4.route.min_adv_mss = 256
net.ipv4.route.min_pmtu = 552
net.ipv4.route.mtu_expires = 600
net.ipv4.route.gc_elasticity = 8
net.ipv4.route.error_burst = 5000
net.ipv4.route.error_cost = 1000
net.ipv4.route.redirect_silence = 20480
net.ipv4.route.redirect_number = 9
net.ipv4.route.redirect_load = 20
net.ipv4.route.gc_interval = 60
net.ipv4.route.gc_timeout = 300
```

```
net.ipv4.route.gc_min_interval_ms = 500
net.ipv4.route.gc_min_interval = 0
net.ipv4.route.max_size = 8388608
net.ipv4.route.gc_thresh = 524288
net.ipv4.route.max_delay = 10
net.ipv4.route.min_delay = 2
net.ipv4.udp_wmem_min = 4096
net.ipv4.udp_rmem_min = 4096
net.ipv4.udp_mem = 6094176 8125568 12188352
net.ipv4.tcp_slow_start_after_idle = 1
net.ipv4.tcp_dma_copybreak = 4096
net.ipv4.tcp_workaround_signed_windows = 0
net.ipv4.tcp_base_mss = 512
net.ipv4.tcp_mtu_probing = 0
net.ipv4.tcp_abc = 0
net.ipv4.tcp_congestion_control = bic
net.ipv4.tcp_tso_win_divisor = 3
net.ipv4.tcp_moderate_rcvbuf = 1
net.ipv4.tcp_no_metrics_save = 0
net.ipv4.tcp_max_tw_buckets_ub = 16536
net.ipv4.tcp_max_tw_kmem_fraction = 384
net.ipv4.ipfrag_max_dist = 64
net.ipv4.ipfrag_secret_interval = 600
net.ipv4.tcp_low_latency = 0
net.ipv4.tcp_frto = 0
net.ipv4.tcp_tw_reuse = 0
net.ipv4.icmp_ratemask = 6168
net.ipv4.icmp_ratelimit = 1000
net.ipv4.tcp_adv_win_scale = 2
net.ipv4.tcp_app_win = 31
net.ipv4.tcp_rmem = 4096 87380 4194304
net.ipv4.tcp_wmem = 4096 16384 4194304
net.ipv4.tcp_mem = 385024 389120 393216
net.ipv4.tcp_dsack = 1
net.ipv4.tcp_ecn = 0
net.ipv4.tcp_reordering = 3
net.ipv4.tcp_fack = 1
net.ipv4.tcp_orphan_retries = 0
net.ipv4.inet_peer_gc_maxtime = 120
net.ipv4.inet_peer_gc_mintime = 10
net.ipv4.inet_peer_maxttl = 600
net.ipv4.inet_peer_minttl = 120
net.ipv4.inet_peer_threshold = 65664
net.ipv4.igmp_max_msf = 10
net.ipv4.tcp_use_sg = 1
net.ipv4.igmp_max_memberships = 20
net.ipv4.icmp_errors_use_inbound_ifaddr = 0
net.ipv4.icmp_ignore_bogus_error_responses = 1
```

```
net.ipv4.icmp_echo_ignore_broadcasts = 1
net.ipv4.icmp_echo_ignore_all = 0
net.ipv4.ip_local_port_range = 32768 61000
net.ipv4.tcp_max_syn_backlog = 1024
net.ipv4.tcp_rfc1337 = 0
net.ipv4.tcp_stdurg = 0
net.ipv4.tcp_abort_on_overflow = 0
net.ipv4.tcp_tw_recycle = 0
net.ipv4.tcp_syncookies = 1
net.ipv4.tcp_fin_timeout = 60
net.ipv4.tcp_retries2 = 15
net.ipv4.tcp_retries1 = 3
net.ipv4.tcp_keepalive_intvl = 75
net.ipv4.tcp_keepalive_probes = 9
net.ipv4.tcp_keepalive_time = 7200
net.ipv4.ipfrag_time = 30
net.ipv4.ip_dynaddr = 0
net.ipv4.ipfrag_low_thresh = 196608
net.ipv4.ipfrag_high_thresh = 262144
net.ipv4.tcp_max_tw_buckets = 180000
net.ipv4.tcp_max_orphans = 65536
net.ipv4.tcp_synack_retries = 5
net.ipv4.tcp_syn_retries = 5
net.ipv4.ip_nonlocal_bind = 0
net.ipv4.ip_no_pmtu_disc = 0
net.ipv4.ip_default_ttl = 64
net.ipv4.ip_forward = 1
net.ipv4.tcp_retrans_collapse = 1
net.ipv4.tcp_sack = 1
net.ipv4.tcp_window_scaling = 1
net.ipv4.tcp_timestamps = 1
net.token-ring.rif_timeout = 600000
net.core.netdev_budget = 300
net.core.somaxconn = 128
net.core.xfrm_larval_drop = 0
net.core.xfrm_acq_expires = 30
net.core.xfrm_aevent_rseqth = 2
net.core.xfrm_aevent_etime = 10
net.core.optmem_max = 20480
net.core.message_burst = 10
net.core.message_cost = 5
net.core.netdev_max_backlog = 1000
net.core.dev_weight = 64
net.core.rmem_default = 135168
net.core.wmem_default = 135168
net.core.rmem_max = 131071
net.core.wmem_max = 131071
debug.rst = 1
```

[illegible]

If you need any further information than please let me know.

Thanks,
Markus

Subject: Re: Maximum number of processes / threads of the OpenVZ HN?

Posted by [markus](#) on Tue, 10 Nov 2009 09:41:59 GMT

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Hi all,

So nobody has an idea why I can't have more than ~ 15,700 processes and threads as listed by the vzlist command on my machine:

```
[root@office-vm01]# vzlist
CTID   NPROC STATUS IP_ADDR   HOSTNAME
4001   3100 running 192.168.3.230 vdev-app01
4002   3101 running 192.168.3.234 vdev-app02
4003   3105 running 192.168.3.238 vdev-app03
4004   3100 running 192.168.3.242 vdev-app04
4005   3096 running 192.168.3.246 vdev-app05
4006   212 running 192.168.3.210 vdev-app06
4007    15 running 192.168.3.214 vdev-app07
4008    15 running 192.168.3.218 vdev-app08
4009    15 running 192.168.3.222 vdev-app09
4010    15 running 192.168.3.226 vdev-app10
```

without running into errors on the VEs and the host like:

```
[root@vdev-app06 /]# cat /proc/user_beancounters
-bash: fork: Resource temporarily unavailable
```

Can someone confirm that running more than ~16,000 processes and threads on a OpenVZ Host should be possible? Do I need to tweak my kernel in a special way to get around that limit?

I really don't want to switch to another virtualization framework only because I'm unable to utilize the full resources of my machine..

Thanks,
Markus