
Subject: Zimbra on OpenVZ on CentOS
Posted by [czaveri](#) on Mon, 20 Mar 2006 19:11:39 GMT
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Thanks to Kir, Dev and the entire OpenVZ team for this wonderful software and the fantastic support.

Here is how I managed to run Zimbra on OpenVZ on CentOS.

In a compendium; first the results and then the config files:

```
[root@vz ~]# uname -srvmp
Linux 2.6.8-022stab070.1-smp #1 SMP Mon Feb 20 19:24:29 MSK 2006 i686 i686
[root@vz ~]# vzpkgls 101
centos-4-i386-default
[root@vz ~]# vzmemcheck -Av
Output values in Mbytes
veid    LowMem LowMem  RAM MemSwap MemSwap Alloc Alloc Alloc
        util commit util  util commit  util commit limit
101     5.11 8192.13 396.68 396.68 8396800.12 2250.78 9692.13 8396800.12
-----
Summary:  5.11 8192.13 396.68 396.68 8396800.12 2250.78 9692.13 8396800.12
          323.00 323.00 2023.00 4007.00 4007.00 4007.00 4007.00 4007.00
```

```
[root@vz ~]# vzctl exec 101 cat /proc/user_beancounters
Version: 2.5
```

uid resource	held	maxheld	barrier	limit	failcnt
101: kmemsize	5004726	6356460	2147483647	2147483647	0
lockedpages	0	0	32	32	0
privvmpages	474538	851314	2147483647	2147483647	0
shmpages	655	2590	8192	8192	0
dummy	0	0	0	0	0
numproc	258	304	1000	1000	0
physpages	97960	107107	0	2147483647	0
vmguarpages	0	0	384000	2147483647	0
oomguarpages	97960	107107	2147483647	2147483647	0
numtcpsock	26	46	200	200	0
numflock	29	35	100	110	0
numpty	1	5	16	16	0
numsignifo	0	11	256	256	0
tcpsndbuf	12648	70936	319488	2147483647	0
tcprcvbuf	692	27192	319488	2147483647	0
othersockbuf	155960	204976	132096	2147483647	0
dgramrcvbuf	0	17104	132096	132096	0
numothersock	116	146	250	250	0
dcachesize	377260	459342	1048576	1097728	0
numfile	1008	1489	2048	2048	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0

```
dummy          0      0      0      0      0
numiptent      10     10    128    128     0
```

```
[root@vz ~]# cat /etc/sysconfig/vz
```

```
## Global parameters
```

```
VIRTUOZZO=yes
LOCKDIR=/vz/lock
VE0CPUUNITS=10000
```

```
## Logging parameters
```

```
LOGGING=yes
LOGFILE=/var/log/vzctl.log
LOG_LEVEL=0
```

```
## Disk quota parameters
```

```
DISK_QUOTA=no
VZFASTBOOT=no
```

```
# The name of the device whose ip address will be used as source ip for VE.
```

```
# By default automatically assigned.
```

```
#VE_ROUTE_SRC_DEV="eth0"
```

```
## Template parameters
```

```
TEMPLATE=/vz/template
```

```
## Defaults for VEs
```

```
VE_ROOT=/vz/root/$VEID
VE_PRIVATE=/vz/private/$VEID
CONFIGFILE="vps.basic"
DEF_OSTEMPLATE="centos-4-i386-default"
```

```
## Load vzwdog module
```

```
VZWDOG="no"
```

```
IPTABLES="ipt_REJECT ipt_tos ipt_limit ipt_multiport iptable_filter iptable_mangle ipt_TCPMSS
ipt_tcpmss ipt_ttl ipt_length"
```

```
[root@vz ~]# cat /etc/sysconfig/vz-scripts/101.conf
```

```
# This is an example configuration file for so-called "vps.basic" VPS.
```

```
# Copyright (C) 2000-2005 SWsoft. All rights reserved.
```

```
#
```

```
# This file may be distributed under the terms of the Q Public License
```

```
# as defined by Trolltech AS of Norway and appearing in the file
```

```
# LICENSE.QPL included in the packaging of this file.
```

```
#
```

```
# This file is provided AS IS with NO WARRANTY OF ANY KIND, INCLUDING THE
# WARRANTY OF DESIGN, MERCHANTABILITY AND FITNESS FOR A PARTICULAR
PURPOSE.
```

```
ONBOOT="yes"

# UBC parameters (in form of barrier:limit)

# Primary parameters
AVNUMPROC="400:400"
NUMPROC="1000:1000"
NUMTCPSOCK="200:200"
NUMOTHERSOCK="250:250"
VMGUARPAGES="384000:2147483647"

# Secondary parameters
KMEMSIZE="2147483647:2147483647"
TCPSNDBUF="319488:2147483647"
TCPRCVBUF="319488:2147483647"
OTHERSOCKBUF="132096:2147483647"
DGRAMRCVBUF="132096:132096"
OOMGUARPAGES="2147483647:2147483647"

# Auxiliary parameters
LOCKEDPAGES="32:32"
SHMPAGES="8192:8192"
#PRIVVMPAGES="384000:385000"
PRIVVMPAGES="2147483647:2147483647"
NUMFILE="2048:2048"
NUMFLOCK="100:110"
NUMPTY="16:16"
NUMSIGINFO="256:256"
DCACHESIZE="1048576:1097728"

PHYSPAGES="0:2147483647"
NUMIPTENT="128:128"

# Disk quota parameters (in form of softlimit:hardlimit)
DISKSPACE=""
DISKINODES=""
QUOTATIME=""
DISK_QUOTA=no

# CPU fair sheduler parameter
CPUUNITS="100000"
VE_ROOT="/vz/root/$VEID"
VE_PRIVATE="/vz/private/$VEID"
OSTEMPLATE="centos-4-i386-default"
ORIGIN_SAMPLE="vps.basic"
HOSTNAME="zimbra.mydomain.net"
IP_ADDRESS="192.168.1.10"
NAMESERVER="192.168.1.20"
```

```
CPULIMIT="75"  
[root@vz ~]#
```

If the above configuration files don't work for you. Here is the How-to. (describes what I did)

Installed CentOS 4.2 on the computer

Installed OpenVZ

Created a VPS with ID 101

Installed Zimbra in this VPS

Zimbra didn't work!

A few services failed and I checked the logs, which looked something like this:

```
Could not reserve enough space for object heap
```

```
Could not create the Java virtual machine.
```

```
Could not create the Java virtual machine.
```

```
/opt/zimbra/bin/zmshutil: line 50: Error: command not found
```

```
Error: executing: /opt/zimbra/bin/zmlocalconfig -q -m export
```

```
Could not create the Java virtual machine.
```

```
/opt/zimbra/bin/zmshutil: line 50: Error: command not found
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```
Could not create the Java virtual machine.
```

```
/opt/zimbra/bin/zmshutil: line 50: Error: command not found
```

```
Error: executing: /opt/zimbra/bin/zmlocalconfig -q -m export
```

```
Error occurred during initialization of VM
```

```
Could not reserve enough space for object heap
```

```
Could not create the Java virtual machine.
```

```
Could not create the Java virtual machine.
```

```
Host
```

```
Could not create the Java virtual machine.
```

```
/opt/zimbra/bin/./bin/zmshutil: line 50: Error: command not found
```

```
Error: executing: /opt/zimbra/bin/zmlocalconfig -q -m export
```

```
Could not create the Java virtual machine.
```

```
/opt/zimbra/bin/./bin/zmshutil: line 50: Error: command not found
```

```
Error: executing: /opt/zimbra/bin/zmlocalconfig -q -m export
```

So, now I checked UBC or user_beancounters using the following command:

```
vzctl exec 101 cat /proc/user_beancounters
```

The last column in the results is called failcnt. All the values in this column should be "0" (zero). If there exists a non-zero value in any row corresponding to failcnt column then there is a problem with resource allocation.

So, starting with the resource that has maximum failcnt, I started increasing values for the corresponding variable in /etc/sysconfig/vz-scripts/101.conf configuration file. I increased a little everytime and checked if the result will be Ok (not the solution, but valid configuration). This can be checked by issuing the command:

```
vzcfgvalidate /etc/sysconfig/vz-scripts/101.conf
```

First, I increased the limit (the value after the colon":") and after validating the file, I restarted the VPS. If it didn't work, then I increased the barrier (the value before the colon ":") and after validating the file again restarted the VPS.

Slowly the values in failcnt started decreasing and finally became "0" (zero).

Also, it is possible to allocate much more than you have. So, you need not worry if the values that you assign to various resource variables in the config files are very high.

That's it!

Kir, please correct where I am wrong.

Thank-you very much!

Subject: Re: Zimbra on OpenVZ on CentOS
Posted by [dev](#) on Tue, 04 Jul 2006 15:15:55 GMT
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Can you please create this howto on <http://wiki.openvz.org> as well?
