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
           physspages       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
           numsiginfo           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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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
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?
