Subject: mem intensive apps such as firefox fail despite kmem changes
Posted by paul_xedos on Thu, 06 Dec 2007 12:10:34 GMT
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Hi,

I have a fairly large 8 cpu, 16gb Host Node which I am planning to divide up into 20 VE's using vzsplit. The idea is for remote users to connect in and receive virtual desktops through NoMachine. Everything works but bigger apps such as firefox and eclipse fail with non-obvious errors although they work fine outside of the VEs. I'm pretty sure its resources related but beancounters shows no fails, vzmemcheck and vzcpucheck looks ok

Output values in %

veid	LowMem util	LowMem commit	RAM util	MemSwap util	MemSwap commit	Alloc util	Alloc commit	Alloc limit
44	0.23	4.59	0.16	0.15	4.96	0.85	4.96	31.10
2281	0.23	4.59	0.16	0.15	4.96	0.85	4.96	31.10
2283	0.76	5.25	1.08	0.96	5.00	2.50	5.00	31.14
Summary:	1.22	14.44	1.41	1.25	14.92	4.20	14.92	93.33

What does seem odd is that despite changing the params in the VEID conf file it does not seem to make a diff to the vzctl startup message about meminfo

```
[root@titan vz-scripts]# vzctl start 2281
Starting VE ...
VE is mounted
Adding IP address(es): 10.4.38.41
Setting CPU units: 56996
Setting devices
Configure meminfo: 1306104
Set hostname: vz1
File resolv.conf was modified
VE start in progress...
```

```
[root@titan vz-scripts]#  cat 2281.conf
# Configuration file generated by vzsplit for 20 VEs
# on HN with total amount of physical mem 16219 Mb
# low memory 2907 Mb, swap size 2000 Mb, Max treads 8000
# Resourse commit level 0:
# Free resource distribution. Any parameters may be increased
# Primary parameters
NUMPROC="744:744"
AVNUMPROC="372:372"
NUMTCPSOCK="744:744"
NUMOTHERSOCK="744:744"
VMGUARPAGES="217684:2147483647"
```

```
# Secondary parameters
KMEMSIZE="22093824:25533558"
TCPSNDBUF="7114260:10161684"
TCPRCVBUF="7114260:10161684"
OTHERSOCKBUF="3557130:6604554"
DGRAMRCVBUF="3557130:3557130"
OOMGUARPAGES="217684:2147483647"
PRIVVMPAGES="1306104:1436714"

# Auxiliary parameters
LOCKEDPAGES="1488:1488"
SHMPAGES="130610:130610"
PHYSPAGES="0:2147483647"
NUMFILE="11904:11904"
NUMFLOCK="1000:1100"
NUMPTY="74:74"
NUMSIGINFO="1024:1024"
DCACHESIZE="6656994:6856704"
NUMIPTENT="100:100"
DISKSPACE="10000000:15000000"
DISKINODES="2484370:2732808"
CPUUNITS="56996"
HOSTNAME="vz1"
VE_ROOT="/vz/root/$VEID"
VE_PRIVATE="/vz/private/$VEID"
OSTEMPLATE="rhel-4.4-i386-newdev"
ORIGIN_SAMPLE="20vps"
NAMESERVER="10.4.22.98"
ONBOOT="yes"
DEVNODES="tty0:rw "
IP_ADDRESS="10.4.38.41"
#NETIF="ifname=eth0,mac=00:19:99:01:8B:6A,host_ifname=veth2281.0,host_mac=00:19:99:01:
8B:6B"
NETIF=""
```

Do changes to the conf file take place on start up or only when the VE is created

Thanks
Paul

Subject: Re: mem intensive apps such as firefox fail despite kmem changes
Posted by vaverin on Thu, 06 Dec 2007 13:44:44 GMT
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paul_xedos wrote on Thu, 06 December 2007 15:10I have a fairly large 8 cpu, 16gb Host Node

which I am planning to divide up into 20 VE's using vzsplit. The idea is for remote users to connect in and receive virtual desktops through NoMachine. Everything works but bigger apps such as firefox and eclipse fail with non-obvious errors although they work fine outside of the VEs. I'm pretty sure its resources related but beancounters shows no fails, vzmemcheck and vzcpucheck looks ok
To measure memory consumption You can remove all limits from Your test VE and execute all required application. Then You can run some tests that will emulate real load. Bu this way you will know maxumum values of of resources consumption and will be able to set these values as limits.

paul_xedos wrote on Thu, 06 December 2007 15:10What does seem odd is that despite changing the params in the VEID conf file it does not seem to make a diff to the vzctl startup message about meminfo
Meminfo shows privvmpages barrier value.

thank you,
Vasily Averin

Subject: Re: mem intensive apps such as firefox fail despite kmem changes
Posted by paul_xedos on Thu, 06 Dec 2007 14:00:17 GMT
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Thankyou very much for this Vasily. Could I just confirm whether the config file changes take effect on start up or only when a VE is first created

Cheers
Paul

Subject: Re: mem intensive apps such as firefox fail despite kmem changes
Posted by paul_xedos on Thu, 06 Dec 2007 14:32:06 GMT
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No need to answer - read the manual again and it takes effect after doing a vzctl stop / start

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Subject: Re: mem intensive apps such as firefox fail despite kmem changes
Posted by paul_xedos on Thu, 06 Dec 2007 14:57:33 GMT
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Sorry to sound such a duffer but is there an easy way to remove all limits as suggested. Hashing out most of the resources params in the VEID.conf file causes these errors on start up

[root@titan vz-scripts]# vzctl start 3842
UB parameter physpages not set
UB parameter vmguarpages not set
UB parameter oomguarpages not set

UB parameter numtcpsock not set
UB parameter numflock not set
UB parameter numpty not set
UB parameter numsiginfo not set
UB parameter tcpsndbuf not set
:::::::::truncated::::::::::
UB parameter tcprcvbuf not set
UB parameter othersockbuf not set
UB parameter dgramrcvbuf not set
UB parameter numothersock not set
UB parameter numfile not set
UB parameter dcachesize not set
UB parameter numiptent not set

Subject: Re: mem intensive apps such as firefox fail despite kmem changes
Posted by vaverin on Fri, 07 Dec 2007 05:28:09 GMT
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Hi Paul,
Sorry for confusing You,
I mean You can set paramters to its maximal values (i.e. to MAX_INT, 2147483647) -- in this case it will limit nothing.

thank You,
Vasily Averin
