Subject: Strange performance issue
Posted by vaserv on Mon, 20 Aug 2007 20:40:58 GMT
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I've got a strange performance issue on a host machine that has a number of VPS on it but I wouldn't call overloaded and it seems to be a CPU limit issue but I can't see what

On the host

[root@vz26uk ~]# time perl -e 'sqrt(100) for (0..1000000)'

real 0m0.044s
user 0m0.041s
sys 0m0.003s

Inside the VE

[root@vz26uk ~]# vzctl exec 881980 "time perl -e 'sqrt(100) for (0..1000000)'"

real 0m3.897s
user 0m3.881s
sys 0m0.015s

[root@vz26uk ~]# uname -a
Linux vz26uk.vaserv.com 2.6.9-023stab044.4-smp #1 SMP Mon May 28 23:15:47 MSD 2007 x86_64 x86_64 x86_64 GNU/Linux

[root@vz26uk ~]# uptime
16:32:49 up 5 days, 9:41, 1 user, load average: 1.37, 0.88, 0.67

CPU is Core2Quad with all 4 CPU's detected

[root@vz26uk ~]# free

	total	used	free	shared	buffers	cached
Mem:	6267700	6205080	62620	0	37960	1288820
-/+ buffers/cache:		4878300	1389400			
Swap:	2096472	764	2095708			

Slighty editted conf file

[root@vz26uk ~]# cat /etc/sysconfig/vz-scripts/881980.conf
ONBOOT="yes"

# UBC parameters (in form of barrier:limit)
# Primary parameters
AVNUMPROC="40:40"
NUMPROC="999999:999999"
NUMTCPSOCK="7999992:7999992"

NUMOTHERSOCK="7999992:7999992"
VMGUARPAGES="131072:2147483647"
# Secondary parameters
KMEMSIZE="2147483646:2147483646"
TCPSNDBUF="107374592:289400832"
TCPRCVBUF="107374592:289400832"
OTHERSOCKBUF="107374592:289400832"
DGRAMRCVBUF="107374592:289400832"
OOMGUARPAGES="131072:2147483647"
# Auxiliary parameters
LOCKEDPAGES="999999:999999"
SHMPAGES="131072:131072"
PRIVVMPAGES="262144:262144"
NUMFILE="23999976:23999976"
NUMFLOCK="999999:999999"
NUMPTY="500000:500000"
NUMSIGINFO="999999:999999"
DCACHESIZE="2147483646:2147483646"

PHYSPAGES="0:2147483647"
NUMIPTENT="999999:999999"

# Disk quota parameters (in form of softlimit:hardlimit)
DISKSPACE="20480000:20480000"
DISKINODES="10240000:10240000"
QUOTATIME="0"

# CPU fair sheduler parameter
CPUUNITS="1000"
VE_ROOT="/vz/root/$VEID"
VE_PRIVATE="/vz/private/881980"
OSTEMPLATE="cpanel"
ORIGIN_SAMPLE="vps.basic"
QUOTAUGIDLIMIT="1000"
CPULIMIT="400"
MEMINFO="pages:262144"
IPTABLES="iptable_filter iptable_mangle ipt_limit ipt_multiport ipt_tos ipt_TOS ipt_REJECT ipt_TCPMSS ipt_tcpmss ipt_ttl ipt_LOG ipt_length ip_conntrack ip_conntrack_ftp ip_conntrack_irc ipt_conntrack ipt_state ipt_helper iptable_nat ip_nat_ftp ip_nat_irc ipt_REDIRECT"

Any ideas what is going on?

Thanks

Rus

Subject: Re: Strange performance issue
Posted by locutius on Mon, 20 Aug 2007 21:31:27 GMT
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these values appear very low for your hardware

CPULIMIT="400"
CPUUNITS="1000"

(am i correct the limit should not be smaller than the assigned units for an individual VPS?)

vzcpucheck will give you your current HN limit and you will see immediately you need a sane view on your HN capability. run vzsplit on your HN and split 16 ways then again split 32 ways. compare the output and look at the CPULIMIT values

also from you config it is interesting for you to look at the limits values for:

VMGUARPAGES
OOMGUARPAGES
PRIVVMPAGES
SHMPAGES

EDIT: OFF TOPIC:

i would also consider rebooting the HN to clear that memory logjam. and your SWAP is way too small, i would prefer it was 6GB min

Subject: Re: Strange performance issue
Posted by vaserv on Mon, 20 Aug 2007 21:35:39 GMT
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Everyone has the same CPUUNITS/CPULIMIY so as I understand it everything should be equal. Just going to an extreme though

[root@vz26uk ~]# vzctl set 881980 --cpulimit 10000 --cpuunits 480082
Setting CPU limit: 10000
Setting CPU units: 480082
Configure meminfo: 262144
WARNING: Settings were not saved and will be resetted to original values on next start (use --save flag)
[root@vz26uk ~]# vzctl exec 881980 "time perl -e 'sqrt(100) for (0..1000000)'"
real 0m2.971s
user 0m2.934s
sys 0m0.034s

No change (BTW this node is running hypervm so those limits are set via that but I take what you are saying.) Its just this one VPS out of 700 or so that is playing up which I'm finding weird all with very similar settings

Subject: Re: Strange performance issue
Posted by locutius on Mon, 20 Aug 2007 21:55:26 GMT
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did you try raising his AVNUMPROC?

do you know what is he running?

btw is hypervm any good?

Subject: Re: Strange performance issue
Posted by vaserv on Mon, 20 Aug 2007 21:58:49 GMT
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I put it to 250 (average is actually 60-80)

Running cPanel, no active websites

From inside the VE

```
root@ariel [/]# uptime
 22:53:24 up 15:27,  0 users,  load average: 0.10, 0.07, 0.02
root@ariel [/]# free
             total       used       free     shared    buffers     cached
Mem:       1048576     311112     737464          0          0          0
-/+ buffers/cache:     311112     737464
Swap:            0          0          0


root@ariel [/]# time perl -e 'sqrt(100) for (0..1000000)'

real    0m3.863s
user    0m3.861s
sys     0m0.003s
```

Subject: Re: Strange performance issue
Posted by locutius on Tue, 21 Aug 2007 02:57:33 GMT
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reboot him see if it persists (i guess you done that already)

Subject: Re: Strange performance issue
Posted by devonblzx on Tue, 21 Aug 2007 05:37:44 GMT
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CPUUnits is accounted by vzcpucheck, not cpulimit. CPUlimit is 100 for every core/cpu you have. Therefore for a quad-core the maximum is 400. Try raising the cpuunits to more like 100000 instead of 1000, although I'm not sure if that will do anything.