Subject: Reasonable expectations
Posted by Cliff Wells on Tue, 11 Dec 2007 21:00:04 GMT
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I've got the following hardware:

CPU: 2x1.6Ghz Opteron 242 (may upgrade to a pair of 2.4Ghz dual-core
880's at some point)
RAM: 8GB Dual channel DDR-400 ECC (may upgrade to 16GB at some point)
Swap: 2x16GB partitions, one enabled
Disks: 6x160GB 7200rpm SATA-160 on 6-channel LSI MegaRaid (64MB cache)
as 800GB RAID-5

I'm running 64-bit Gentoo as the host, and will run 32-bit guest VE's
(which will tend to be dynamic web sites with databases - typical
hosting stuff). I'm not going to run anything besides the VE's on the
host. DNS, mail, etc resides on other servers.

Running vzsplit -n 75 gives me:

# Configuration file generated by vzsplit for 75 VEs
# on HN with total amount of physical mem 7949 Mb
# low memory 7949 Mb, swap size 15264 Mb, Max treads 8000
# Resourse commit level 0:
# Free resource distribution. Any parameters may be increased
# Primary parameters
NUMPROC="542:542"
AVNUMPROC="271:271"
NUMTCPSOCK="542:542"
NUMOTHERSOCK="542:542"
VMGUARPAGES="68214:9223372036854775807"

# Secondary parameters
KMEMSIZE="22229559:24452514"
TCPSNDBUF="5189821:7409853"
TCPRCVBUF="5189821:7409853"
OTHERSOCKBUF="2594910:4814942"
DGRAMRCVBUF="2594910:2594910"
OOMGUARPAGES="68214:9223372036854775807"
PRIVVMPAGES="409284:450212"

# Auxiliary parameters
LOCKEDPAGES="1085:1085"
SHMPAGES="40928:40928"
PHYSPAGES="0:9223372036854775807"
NUMFILE="8672:8672"
NUMFLOCK="867:953"
NUMPTY="54:54"

NUMSIGINFO="1024:1024"
DCACHESIZE="4849584:4995072"
NUMIPTENT="26:26"
DISKSPACE="972211:1069433"
DISKINODES="7880279:8668308"
CPUUNITS="2105"

If I understand correctly, it appears that this will give me 75 266MB VE's. I also assume that adding another 8GB of RAM (and 16GB of swap) would let me double the number of VE's to 150.

However, I wonder if this is realistic. CPU, I/O, etc all factor into overall performance and potential bottlenecks aren't easy to predict (although CPU power seems an immediate concern).

I'd like to hear any recommendations people might have for limits to put on this type of server. I don't expect graphs or science, just the voice(s) of experience =)

Regards,
Cliff

Subject: Re: Reasonable expectations
Posted by TheWiseOne on Tue, 11 Dec 2007 21:07:59 GMT
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Cliff Wells wrote:
> I've got the following hardware:
>
> CPU: 2x1.6Ghz Opteron 242 (may upgrade to a pair of 2.4Ghz dual-core
> 880's at some point)
> RAM: 8GB Dual channel DDR-400 ECC (may upgrade to 16GB at some point)
> Swap: 2x16GB partitions, one enabled
> Disks: 6x160GB 7200rpm SATA-160 on 6-channel LSI MegaRaid (64MB cache)
> as 800GB RAID-5
> ...
>
> I'd like to hear any recommendations people might have for limits to put
> on this type of server. I don't expect graphs or science, just the
> voice(s) of experience =)
>
>
>
40 VPS's max is what I'd put on it. With decent load in each you could find yourself with as low as 20.

Subject: Re: Reasonable expectations
Posted by Cliff Wells on Wed, 12 Dec 2007 10:53:45 GMT
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On Tue, 2007-12-11 at 16:07 -0500, Matt Ayres wrote:
> Cliff Wells wrote:
> > I've got the following hardware:
> >
> > CPU: 2x1.6Ghz Opteron 242 (may upgrade to a pair of 2.4Ghz dual-core
> > 880's at some point)
> > RAM: 8GB Dual channel DDR-400 ECC (may upgrade to 16GB at some point)
> > Swap: 2x16GB partitions, one enabled
> > Disks: 6x160GB 7200rpm SATA-160 on 6-channel LSI MegaRaid (64MB cache)
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> > ...
> >
> > I'd like to hear any recommendations people might have for limits to put
> > on this type of server. I don't expect graphs or science, just the
> > voice(s) of experience =)
> >
> >
> >
> 40 VPS's max is what I'd put on it. With decent load in each you could
> find yourself with as low as 20.

I think what I've settled on is to use "vzsplit -s 0 -n 100", but limit
the actual number of VE's to 50. This should keep the number of actual
processes reasonable and simultaneously allow me to have sufficient room
to expand the resources for each VE if needed.

And of course I can always go to the dual core CPUs, add another RAID
card and more spindles and more RAM if needed (the additional RAM should
at least help the host with caching and avoid swapping if nothing else).

Thanks for the advice.

Regards,
Cliff