Subject: Split a server into security units - what is the best way?
Posted by bjmg on Wed, 22 Mar 2006 08:30:38 GMT
View Forum Message <> Reply to Message

Hello again,

This time I have a question about the performance of openvz. We want to use openvz to split a quite large server into several "security units".
This is the configuration of that server:
Dual Intel Pentium 4 Xeon HT EM64T with 3.2GHz (2 physical CPUs + 2 virtual CPUs)
4 GB of RAM
SATA-Raid in Mirroring Mode
Centos 4.3 x86_64 (Host System)
Debian Sarge AMD64 (inside VPSs)

Now we want to run a quite large database server (MySQL) on it. The databases have a file size of about 20 GB (growing rate: 1.2GB/month). So MySQL needs a lot of RAM to be fast enough to handle that. I would say: MySQL should get about 3072 MB of RAM and "most" of the CPU power. That MySQL server should run on its own VPS (using Debian Sarge AMD64 as VPS-OS). In addition to that MySQL-VPS we need a development system, a testing system and a system that runs some network/traffic accounting tools. These servers are low priority servers and we think that they don't need much CPU power and also not that much RAM.

Here is a small table that shows the "promised" CPU power for the VPSs from above:
80% MySQL-System
10% Development-System
10% Network-Accounting-System
00% Testing-System (not needed every day)

If this is not optimal, please give us other values.

Now what is the best way to create a config like that?
I thought vzsplit should do the job. I thought splitting the server into 10 parts ((80+10+10)/10) and then multiplying the values for the MySQL-System with 8 would be perfect. What do you think about that? Is that the right way?

Thank you!

Bernhard

Subject: Re: Split a server into security units - what is the best way?
Posted by zoom on Thu, 23 Mar 2006 01:47:29 GMT
View Forum Message <> Reply to Message

Bernhard,
Why would you want to consider changing the server to VPS based environment when it seems

that your existing server is pretty much dedicated to MySQL demands ie: 3GB RAM / 80% CPU??? Instead it might be wise to consider another server that hosts multiple VPS' for Development and other non critical tasks???

Subject: Re: Split a server into security units - what is the best way?
Posted by bjmg on Thu, 23 Mar 2006 09:06:06 GMT
View Forum Message <> Reply to Message

This is only the slave database server. The master server is dedicated to mysql. This is the only server that is able to handle that load. At the moment the system handles all of these VPSs in its host system. To have a more secure system I think it would be wise to split the server into security units. That way an attack to the testing system is only local to that system and NO exploit on the testing system is able to delete the database server because it is in an other VPS.
I really hope someone can give me some hints how to configure that host to have maximum performance and stability.

Bernhard

Subject: Re: Split a server into security units - what is the best way?
Posted by dev on Thu, 23 Mar 2006 16:18:30 GMT
View Forum Message <> Reply to Message

from what you wrote, it looks like you mostly care for CPU. then you simply need to setup mysql VPS to have x10 times more cpuunits than other VPSs.
e.g.
vzctl set MYSQL_VPS_ID --cpuunits 10000 --save
vzctl set OTHER_VPS_ID1 --cpuunits 1000 --save
vzctl set OTHER_VPS_ID2 --cpuunits 1000 --save
to make it more secure, I recommend you to have _only_ mysql inside mysql VPS. no ssh, and other such things...

Subject: Re: Split a server into security units - what is the best way?
Posted by bjmg on Fri, 24 Mar 2006 14:47:44 GMT
View Forum Message <> Reply to Message

Hello,

thanks for your answer.
It is not just the CPU time... We also try to give MySQL at least 3GB of RAM because MySQL

needs much RAM to be fast when handling large databases.

Bernhard