Subject: Re: extreme load during high disk i/o Posted by dowdle on Sun, 02 Sep 2007 16:32:45 GMT

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There are few issues here:

- 1) VE / Host Isolation OpenVZ isolates VEs from each other and the host node in such a way as not to allow (a properly configured) VE to hurt other VEs or the host node. In this case OpenVZ's isolation isn't working as well as we would hope because the VE is having a big impact on other VEs and the host node.
- 2) VE Performance Should you do things inside of a VE that is ill-advised even on a host node? To clarify, chances are you have configured your VE to have less resources than your host node making the situation worse than doing your operation on a host node... so to rephrase... Should you do things inside of a VE that is ill-advised even on a host node with more resources than the VE?
- 3) I don't want tell you that you shouldn't use software (Linux kernel) based RAID on your host node as I've read that in some cases it out performs some hardware RAID... but then again... in this case, the software RAID part might indeed be a contributing factor. At this point I don't know for sure.

I have a few questions.

If you were to do an import of a 10GB mysqldump file on a physical host configured with the same amount of RAM you have allocated to your VE... what impact would that have on the physical machine? How much I/O wait would you encounter and how large would the load go... and how long would the job take? With that information, it would be nice to compare that to the performance of your VE to see if there is indeed a VE performance issue. Of course, the steps you took to address #1 above, only degrade the performance further.

I'm guessing, without much information to back it up, that the operation in question wouldn't perform very well anywhere... and that as a responsible system admin, you should strongly consider breaking up the mysqldump import into smaller chunks... as locutius suggested... as that strategy alone may resolve the symptoms... at least regarding the VE Performance part.

I'm kinda in the dark here as I have not tried to import a 10GB mysqldump file and have no idea if it is a piece of cake or a major pain.

Regarding your suggestion that because you are using OpenVZ that you don't have to worry about your host node nor about anything your users do in a VE... and that you are lucky because you were paying attention THIS time... I disagree. If you are in charge of the host node, you are also (to some degree) responsible for what goes on in the VEs. You should always try to monitor your systems and be proactive to avoid problems. This isn't something OpenVZ is going to solve for you no matter how well it works.

If you (or your VE root users) don't keep your VE updated with security patches... or users set bad passwords... and your VE gets hacked and becomes a spambot node... who is going to feel the

pain? The same goes for performance issues.

We'll continue to try to figure out what the problems are here and how to solve them... and do appreciate your willingness to provide information when asked. While this operation is probably not something that should be considered a common problem, resolving it will definitely improve OpenVZ's Isolation features.