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Subject: DB in VE's for Asterisk Realtime and Disk I/O Performance

Posted by [JR Richardson](#) on Wed, 14 Dec 2011 19:40:29 GMT

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Hi All,

I've been running OpenVZ for more than 2 years now, hosting PBX's based on Asterisk. None of the VE's use databases, a few use web app operator panel but the majority are standard PBX's using flat file configs and the only real disk I/O is for logs, voicemail, sound files, very little disk activity. The efficiency has been great and allows me to run 60+ PBX's on 1 hardware node. The hardware nodes used are Dell PE2850 with 2 x Dual Core Xeons, 8 Gig Ram and Raid 0 on 10K Ultra 320 SCSI drives.

I would like to start building VE's with database support and more web apps, CDR search tools, Queue Stats, Realtime database driven dial plans. I'm suspicious about Disk I/O and limitations I will run into as I start to use more VE's built with databasing. I have read postings about disk i/o performance with regard to file systems like ext3/4 and btrfs, using noatme when mounting the file system, the different i/o schedulers used in the Kernel. I think I understand most of what I'm reading about, but I would like to know about real world systems and what others are experiencing.

The critical parts of operating standard PBX's in VE's aside from dialplan execution is disk i/o playing back sound files and voicemail.

When using realtime database setup, the ultra critical part is dialplan execution, instead of memory based call flow, now every execution is read from database, disk i/o will increase drastically. I'm sure the first few systems will operate fine and I will not see any issues arise till I start loading the hardware node up, then it will be a bit late, chasing troubles, trying to figure out what the deal is while the customer suffers. This is what I am trying to avoid.

Are there tools available to benchmark disk i/o and are errors available in beancounters?

What would be a better server platform to run on that has less of a bottleneck with disk i/o?

Can someone offer real world experience running Asterisk Realtime based system in OpenVZ, what type of density of VE's on what type of hardware?

Any guidance or feedback is appreciated.

Thanks.

JR

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JR Richardson

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