



Harry Potter and the Daemons of Berkeley

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Who we are

- A small consulting company from Spb., Russia
- Elephant groomers
- Ops engineers, performance tuners
- We also walk dogs



Who are you

- People smart enough to be DBAs?
- People smart enough to be DBDs?
- People smart enough to prefer PostgrteSQL?
- MySQL users, anyone?





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- MS Windows is much smarter than me
- I prefer Linux and open source
- At least I can get high and read source code a bit



Enough on me, fight!

- Ubuntu Linux (dumb as me)
- FreeBSD (a lot smarter)
- Gentoo Linux (elite stuff)

- Dell R430
- 192Gb RAM
- PERC H730 mini
- Two Edge Boost Pro P SSDs in RAID1
- 2 x Xeon(R) CPU E5-2630 v3 @ 2.40GHz

- PostgreSQL
- Minimal tuning (checkpoint-related)
- As always:
- `pgbench -i -s 1000 --foreign-keys pgbench`
- `pgbench -T 300 -P 10 -c N -j N -r pgbench`
- Synchronous commit
- Asynchronous commit

Ubuntu Linux, sync commit

- ext4, data=ordered, barrier, relatime (defaults, no tuning)
- N=1, 1397 tps
- N=4, 3928 tps
- N=8, 6559 tps
- N=12, 8132 tps

Ubuntu Linux, async commit

- N=1, 1609 tps
- N=4, 5432 :) tps
- N=8, 9068 tps
- N=12, 10321 tps

FreeBSD (UFS/SU), sync commit

- N=1, 1196 (Ubuntu: 1397) tps
- N=4, 2819 (Ubuntu: 3928) tps
- N=8, 3430 (Ubuntu: 6559) tps
- N=12, 3785 (Ubuntu: 8132) tps

FreeBSD (UFS/SU), async commit

- N=1, 1614 (Ubuntu: 1609) tps
- N=4, 3783 (Ubuntu: 5432) tps
- N=8, 3981 (Ubuntu: 9068) tps
- N=12, 4791 (Ubuntu: 10321) tps



FreeBSD (ZFS), async commit

- Died under load, I lost it



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- Well, I have to configure network to “emerge ifenslave”...
- ...to configure network!
- Ever heard of recursion?
- Yes, there is 802.3ad bonding on a switch and it's mandatory!

- I'd rather stay on Ubuntu, it suits me best
- FreeBSD is effectively dead, sorry guys
- Gentoo is too elite



So long, and thanks for all the fish!

- Your questions, please?
- This was your Principal Engineer speaking
- <http://gitinsky.com>
- alex@gitinsky.com
- <http://meetup.com/DevOps-40>