

Sysadministrivia

Linux, Lagers, and Late Nights

S5E19: "RAM it in Hardware"

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Log

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Quicklisten:

In this episode, we delve deeper on the topic of hardware for servers – specifically, Jthan features a lengthy look into ECC RAM.

I apologize if my audio seems a bit off in this one; I lost my local recording so we had to rely on Mumble's recording!

- Just the Tip
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Just the Tip

- Paden talks about how **not** to perform a software/platform/etc. migration.

Notes

Starts at **25m34s**.

I was drinking a Guinness Draught. Paden was drinking Grey Goose vodka and orange juice. Jthan was drinking Michelob Ultra.

- ECC ("Error-Correcting Code") RAM
 - ECC RAM with ZFS is a mixed bag – it has some tradeoffs.
 - ECC RAM is a bit slower.
 - "Segfaults instead of kernel panics", for an abstract way of looking at it.
 - They also log hardware errors in the MCE ("Machine Check Exception") log.
- Power supplies (**38m33s**)
 - How many PSUs?
 - For availability, Jthan thinks you should get at least a single failover (2x total) PSU chassis/board.
 - For boxes with high power consumption, keep in mind the failover factor needed!
- Disks (Hard drives) (**42m44s**)
 - Jthan recommends enterprise disks because they last longer.
 - If you're using platter disks, remember about vibrational sensitivity (and the vibration the disks themselves generate as well)!
 - Jthan whores about ZFS again and then promptly forgets to talk about it. He really wanted to talk about error recovery control.
 - He also cautions about how spin-up/spin-down affects warranty and guaranteed lifetime of disks.

15 Clams

In this segment, Jthan shares with you a little slice of life. The title is a reference to this video. (2m16s in)

Starts at **59m10s**.

Jthan tells us about the datacenter watercooled in a pond.

And by that he means make sure you have backups and a restore procedure. Also make sure you have a failover plan or procedure for your secondary/failover backup server if it fails.

Errata

- This is the poll we were referring to in the intro. Relax, we recorded this before the election even started.
- Dook in Peace. Charlie Buckets (the ferret). You were a good boy. :(
 - I was wrong, he was actually pretty young. It's not unheard of for them to die around 4 years old from cancer or other medical conditions, but he was still fairly young (~7 years is roughly the upper limit if they develop cancer. "Old" would be 13 if natural causes/old age.). He died of a heart attack. He was 3.5 and had degenerative cardiomyopathy.
 - You can find photos of him here: 1, 2, 3, 4
 - Still miss ya, bud.
- I reference the Good, the Bad and the Ugly (which Jthan hasn't seen because he doesn't watch good movies apparently).
 - Let us know which one of the Sysadministrivia hosts are each character in this scene (spoiler alert).
 - But also it's from the mid-60's and not the 70's, oops.
- ZFS was written originally by three people.
 - Jthan said he was thinking of Matt Ahrens, specifically this quote from him.
- Regarding platter drives and vibrational sensitivity, this will forever be one of my favourite videos.
- Member **loken** in our Discord has pointed out to us the following. Thanks, loken!
 - There are non-Xeon Intel processors that support ECC.
 - Supermicro (and possibly others) have boards that **require** ECC RAM to be used!

Music

Music Credits

Track	Title	Artist	Link	Copyright/License
Intro	Inspired	Kevin MacLeod	click	CC-BY 4.0
Outro	Trouble With Tribals	Kevin MacLeod	click	CC-BY 4.0

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Categories Season Five

Comments

There are currently no comments on this article.