Sysadministrivia

Linux, Lagers, and Late Nights

S3E0: "You Can Tune a System but You Can't Tuna Fish"

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Log

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Quicklisten:

In this episode, we talk about our personal, professional, and podcast plans for 2018. We also talk about some basic bird's-eye-view performance tuning.

As a bonus, you get some Jthan story time, too.

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News

- Spectre and Meltdown
    - We didn't even bother with sources for this one, because it's been ALL over the news. The authoritative source, however, is here.

- Details of the result of the Net Neutrality hoopla is here.
- Equifax has lost even more than originally thought.
- The NSA leaked exploits are in the news again.
- Intel told China about the security flaws before the general public.
- A fitness app, Strava, gave away a secret US base location.
- Dutch intelligence supposedly watched Russia hack the DNC and did nothing.
- Intel recommends holding off on patching for now.
    - Intel has also been hit with **3** class action lawsuits relating to the Spectre/Meltdown vulns.

- Amazon refuses to reveal if they hand over Echo data to the US government.
- A journalist ends up essentially leaking her own password hints/passwords.
- Per Nvidia: No more Geforce drivers/GPUs in datacenters. (§ 2.1.3 "Limitations")

Notes

Starts at **28m37s**.

I was drinking Chai tea. Paden was drinking Coors Light. Jthan was drinking water with some lemon in it.

- New year, new us!
    - Personal and professional goals for 2018
        - Jthan: taking more time off work for "me"-time (pottery, "outdoorsy stuff", etc.), saving money, buying a house and putting down roots. He also wants to focus on his consulting business and getting his RHCSA and RHCE. He wants to work more on direct assistance with workflows/pipelines for clients.
            - He also wants to buy a Honda Ruckus moped. #MakeModGreatAgain

        - r00t^2: I want to move out of the city and settle roots somewhere as well. Professionally, I can't get into too much detail because NDA but I have a lot of things planned and I've been crushing them so far.

- Paden: Focus on his family. Professionally, pursuing his LPIC cert and homelab.

- Podcast goals for 2018/S3
  - MERCH. We unanimously agree.
  - More guests.
  - More interaction with our audience.
  - More "review"-type thing. (Speaking of, if you're a Windows sysadmin and have never used Linux extensively, please contact us!)

- Jthan found an article that has some good suggestions for the new year for sysadmins.

- Performance tuning **(41m4s)**
  - Gentoo gives you some MAJOR control over binary compile-time optimizations.
  - We mention it before, but the top 500 supercomputers in the world run GNU/Linux.
  - If you have bare metal and you're trying to add ONE more service but can't quite make it, how do you modify/tune what you already have running to make it work? Is this a very bad idea?
    - I propose a normal operating usage should be about 75% resource consumption at average use.
    - Reduce your swappiness! Something to either 0 or 1 should be MUCH more performant.
    - Consider what featuresets/support/libraries are compiled into your binaries.
      - This is why e*Trade used Gentoo.

  - Are there certain distros that lend themselves best to this type of practice? Or OS's, for that matter?
    - Gentoo is probably the ideal one, here, if you need THAT much control.

  - Service consolidation!
    - Using Apache and Squid or something on the same box? Use Nginx instead! etc.

  - OS/Kernel-level tuning vs. service-level tuning
    - There are a LOT of kernel tunables. Seriously, a lot.
    - We forgot to mention it on the show, but tweaking your preforking handlers (if your services support them) can greatly help with performance on the service end, but can overuse a (small amount) of resources if you're overly-aggressive with it.

  - Disable kdump (as long as you don't need to debug kernel panics, etc.)
    - The systemd equivalent I was trying to remember is, appropriately-named, systemd-coredump for userland. You can also still use kdump with it too.
    - Jthan was thinking of abrtd, which is RedHat's **bug reporting daemon**.

  - Change your network socket timeouts, etc.
  - Avoid loading extraneous kernel modules and software includes/"drivers" if they aren't explicitly necessary.
  - Also, run swap from SSD! It's 2018 and SSD is cheaper than ever. There's no reason to run swapspace from spinning/platter disks.
  - The main take-away here is, simply, "There is no magic bullet". You need to really grok the system internals in order to know WHAT to modify, not just HOW to modify them.
    - Some good resources to get started on this journey are:
      - For a very basic introduction, How Linux Works
      - Advanced Programming in the UNIX Environment by W. Richard Stevens (it's a lot more accessible than the title sounds)
      - The TLDP's TLK Some explanation on how the Linux kernel works.
      - ESR's The Art of UNIX Programming
      - And, of course, the 'Pink Book'

Sysbadministration Award

In this segment, we highlight system administration mistakes. Think of them as the IT equivalent of the Darwin Awards. **(57m11s)**

Hotspot Shield VPN provider was running a webserver on their customer's/client-side boxes – and it was vulnerable.

(Shameless self-promotion: if you need a proxy or VPN provider that **doesn't** run a webserver on your box or require proprietary software, I gotchu fam.)

Errata

- I had to take over editing for half of the episode; our normal editor had some issues come up. Get better soon, Edita!
  - If any of it sounds shitty, it's my fault, not hers.

- Also, Jthan was on a different recording rig setup than normal so his audio probably sounds a little different/sub-optimal than normal.
- The duck thing is in S2E22 (the whole duck thing starts at **2h4m30s**, continued throughout the rest of the episode, and into the Errata)
- George Michael indeed said "I GOTTA have faith"
  - But if you're of the younger generation, you probably are more familiar with this cover, lol.

- The images I sent to Jthan for the mod fashion styles are here and here (the first one is the one we talk about on-air).
- Jthan/Paden, Jeep Wranglers do indeed have a higher chance of rolling over – according to SUVs.com, 27.9% (Cherokees aren't even on the top 5 list).
- You may not be familiar with the concept of the Mandela Effect but you've probably gotten the feeling of experiencing it.
- Kia did indeed offer a "Buy one, get one" deal. The advert Jthan mentions is here
- My noodling game is on-point. So is Gordon Ramsay's.
  - Jthan references the cockulator thing, throwback to S1E22.

Music

Music Credits

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