

Sysadministrivia

Linux, Lagers, and Late Nights

S6E9: "The Web of Tomorrow"

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| MP3 | 7d19a7897f8a726c1c9d7f3eee8fcac83af741ab47fdf67fe32861e9db0e3de9 | click | click |
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Quicklisten:

In this episode, we talk about HTTP/2, HTTP/3, and QUIC.

- Just the Tip
- Notes
- 15 Clams
- Errata
- Music

Just the Tip

- When copying code from StackExchange, you should first paste it in a plaintext editor (preferably an ASCII-only editor) and then copying from there to strip out nasty unicode. (Or some editors like JetBrains IDEs offer a plaintext paste option, which should be used.)

Notes

Starts at **30m22s**.

I was drinking Troeg's Troegenator. Paden was drinking PBR. Jthan was drinking Michelob Ultra.

- HTTP/2, HTTP/3, and QUIC
 - HTTP/2
 - Was born from SPDY by Google
 - Approximately 97% of browsers in current use support HTTP/2, per Wikipedia.
 - Intended to be backwards-compatible with HTTP/1.1.
 - Stated design goals:
 - Negotiate which HTTP version (or even non-HTTP applications)
 - High-level comparability with HTTP/1.1
 - Support existing HTTP implementation
 - Decrease latency via:
 - Data compression if headers
 - Server-side push
 - Pipelining requests
 - HOL (partially/mostly) resolved
 - Multiplexing multiple requests over a single TCP connection
 - In HTTPS, it **requires** TLS 1.2 or above with ALPN extension per-spec.
 - Interestingly, the spec itself does not require encryption (HTTPS) but the major browsers (Chrome, Firefox, etc.) that support HTTP/2 will **only** implement it over TLS/HTTPS.
 - HTTP/2 has a sort of "alternative" to 301/302 redirection via the "Alternative Service" header...
 - But it's even more flexible than a simple redirect, as it allows things like client-side load-balancing/failover.
- HTTP/3 and QUIC
 - Again originally presented by Google (Wikipedia article)
 - No longer uses TCP, instead uses QUIC (multiplexed UDP).

- This **completely** fixes HOL blocking, including the shortcomings that HTTP/2 has with regards to it.
- In the process, multiplexing has been moved lower in the stack/OSI model (in comparison with HTTP/2, which multiplexes client sessions over a single TCP session).
- Both QUIC and HTTP/3 are not a formal RFC yet, but QUIC has a draft.
- Further reading:
 - Collection of QUIC documents
 - HTTP/3 parameters

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 **55m01s**.

“What type of positions should I seek out to build up my Operations career?”

It depends on what focus you want. If you like working with hardware or want to end up in NetOps, start as a rack monkey for a datacenter. If you’re looking for SysOps, helpdesk/technicians are a good place to start, etc. Jr. SysAdmin is probably going to be your launching point for all of the significant Ops roles, though.

Also look at what your day-to-day will be.

I talk about how apprenticeships should be a much, MUCH more common thing (and be treated as a valid education) for our field.

Errata

- I mention the ferrets have (had) “some kind of cold” – we think it might actually have been a reaction to their vaccinations, as it seems to only occur immediately after a round of them (they’ve had another round and the same thing happened since).
- China is indeed buying up a ton of US real estate.
- There are a bunch of stories of people living in someone else’s house without their knowledge
 - And yeah, there was a famous case in Japan.

Music

Music Credits

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| Intro | Bleeping Demo | Kevin MacLeod | click | Filmmusic Standard |
| Outro | Ethernight Club | Kevin MacLeod | click | Filmmusic Standard |

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Categories Season Six

Comments

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