

# Sysadministrivia

## Linux, Lagers, and Late Nights

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# S6E9: "The Web of Tomorrow"

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### Navigation

Previous Episode	Next Episode
S6E8: "ICUP"	S6E10: "You Can't Scale a Fish"

### Log

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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	<a href="#">click</a>	Filmmusic Standard
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**Author** r00t^2

**Categories** Season Six

## Comments

There are currently no comments on this article.