The State of HTTP

httpwg.github.io

Things that are done.

HTTP/2

- Published as RFC754[0,1] in May 2015

- Talks from Patrick McManus, Moritz Steiner, and Vlad Krasnov on Monday

Alternative Services

- Published as RFC7838 in April 2016

- Implemented in Firefox, Chrome in progress

- Use cases:

  - Load balancing

  - Opportunistic security

  - QUIC upgrade

Almost done.

Encryption Content Encoding

- Used by WebPush, Blind Caching

- Martin Thomson editing

Opportunistic Security

- Using TLS for HTTP URLs

- No user visibility; only for pervasive monitoring

- Mozilla implements

- Mark Nottingham, Patrick McManus editing

Working on it.

Key

- Finer-grained secondary cache key

  - i.e., improved Vary

- Waiting for implementation / feedback

- Mark Nottingham editing

Cache Digest

- Communicate client cache contents to server

  - Improve Server Push

- Talk from Kazuho Oku on Monday

JFV

- Make headers more regular

  - Easier/more correct to define, parse, emit

- Discussion just starting

- Talk from Julian Reschke on Wednesday

Origin Frame

- Lets a connection specify valid origins

  - Less than covered by certs

  - More?

- Mark Nottingham editing

Client Hints

- Improved Conneg

  - DPR, image width, bandwidth estimation…

- Ilya Grigorik editing

RFC5987bis

- Encoding non-ASCII in header values

- Just a bis?

- Julian Reschke editing

RF6265bis

- Cookie Spec Revision

  - Same-Site Cookies

  - Leave Secure Cookies Alone

  - Cookie Prefixes

  - More?

Fetch

- How Browsers handle HTTP (++)

- Talk from Anne van Kesteren on Tuesday

Soon. Maybe.

TCP Tuning

- Best Practices for HTTP over TCP/1

- Talk from Daniel Stenberg on Tuesday

Secondary Certs

- Client Certs, adding Server Certs

- Possible EXTENDED_SETTINGS

- Talk from Mike Bishop on Wednesday

Blind Caching

- Caching Encrypted Content

  - Out-of-band Content Encoding

  - MICE

- Talk from Martin Thomson on Wednesday

Retries

- Applications, TCP Fast Open, QUIC, TLS/1.3

- Talk from Subodh Iyengar on Wednesday

Range Units

- A new range unit for streaming video?

- draft-pratt-httpbis-bytes-live-range-unit

Deltas and Dictionaries

- Under consideration

- SDCH ("sandwich") specification forthcoming

- draft-vkrasnov-h2-compression-dictionaries

QUIC

- Discussed extensively at IETF96 at BoF

- TCP/2?

- Talk from Jana Iyengar on Tuesday