HTTPbis: HTTP/2.0

IETF84 Vancouver

Note Well

The Brief Summary

This summary is only meant to point you in the right direction, and doesn't have all the nuances; see below for the details.

By participating with the IETF, you agree to follow IETF processes.

If you are aware that a contribution of yours (something you write, say, or discuss in any IETF context) is covered by patents or patent applications, you need to disclose that fact.

You understand that meetings might be recorded and broadcast.

The Details

For further information talk to a chair, ask an Area Director, or review BCP 9 (on the Internet Standards Process), BCP 25 (on the Working Group processes), BCP 78 (on the IETF Trust) , and BCP 79 (on Intellectual Property Rights in the IETF).

Where We Are

- **Around Paris meeting, we agreed to solicit proposals for HTTP/2.0**
- **Three proposals made:**
  - SPDY
  - HTTP S+M
  - Network-Friendly Upgrade

Sanity Check

- **WS-* seemed like a good idea at the time**
- **Pipelining is getting deployment**
  - Firefox
  - Chrome
  - mobile
- **Huge investment in existing infrastructure**
- **Deploying new things has opportunity cost (among others)**

What's Next?

- **Discussion of expressions of interest**
- **Charter drafting**
  - Starting Point
  - Specific Issues
- **ALL decisions verified on list; we're just getting a sense of the people in this room**
- **Charter draft will be presented to IESG**

Expressions of Interest

- **Clear consensus to base our approach substantially on draft-mbelshe-httpbis-spdy-00**
- **Question seems to be how on how to structure the work**
  - just SPDY
  - pick-and-choose
  - start with HTTPbis p1
  - SPDY, with instructions / caveats / input

Charter

- Starting point
- Specific issues
- Timeline
- Carve out functionality?
- Additional work items

Specific Issues

- Mandatory TLS
- Header Compression
- Upgrade / Handshake
- Server “push”
- Flow control
- Security Properties

Mandatory ?

- **HTTPS URLs should work the same in 2.0**
  - Use NPN to negotiate 1.x vs 2.0
  - Proxy? CONNECT
- **For HTTP URLs, client and server negotiate:**
  - HTTP/1.1
  - HTTP/2.0 + “StarBucks[tm]” TLS
  - HTTP/2.0 w/o TLS

Mandatory TLS (2)

- **"Optimistic" TLS means:**
  - Certificate does not need to be checked
  - Configured proxy terminates
    - Primary motivation is blocking passive eavesdropping
- **Charter impact:**
  - Negotiation mechanism(s) to support these uses
  - Potential coordination with others (e.g., W3C)
  - All* other discussion of topic out of scope

Security Properties

- Need to finish to go to LC on BIS (and therefore blocking 2.0 as well)
- Editors?

Related Efforts

- Protocol lab / content corpus
- Test suite

Looking Ahead

- HTTP/1.1 WGLC - end of month
- Security Properties WGLC - September
- HTTP/2.0 draft -00 - September
- IETF85 - November 2012, Atlanta US
- Interim Meeting - January 2013, ???
- IETF86 - March 2013, Orlando US
- IETF87 - July 2013, Berlin DE