IETF 99101 - HTTPtre

Julian Reschke, greenbytes
History of HTTP in the IETF

Observations:

• It took long to restart work on HTTP/1.1 (~8 years)
• It took long to finish the last revision of HTTP/1.1 (~6 years)
• There are two current HTTP specifications (HTTP/1.1 and HTTP/2)
  ◦ ...not to mention HTTP over QUIC, started in November 2016
Why and when to update

• RFCs are immutable documents
• We collect errata and occasionally revise
  ◦ ...but the errata are incomplete and hard to discover (RFC-Editor???)
• If we start now, we won't be ready before 20182019, which would be 45 years after publication of RFC 723x
• Eventually, the new RFC format will allow us to make the officially published versions more readable
Current Status

We created a (temporary) workspace to resurrect the 723x drafts with complete change history going back to RFC2616:

https://github.com/dwid-org/http11ter

With minimal edits to reflect status, we posted a set of 00 drafts:

1. draft-fielding-httpbis-http-messaging-00 (HTML, diffs from RFC 7230)
2. draft-fielding-httpbis-http-semantics-00 (HTML, diffs from RFC 7231)
3. draft-fielding-httpbis-http-conditional-00 (HTML, diffs from RFC 7232)
4. draft-fielding-httpbis-http-range-00 (HTML, diffs from RFC 7233)
5. draft-fielding-httpbis-http-cache-00 (HTML, diffs from RFC 7234)
6. draft-fielding-httpbis-http-auth-00 (HTML, diffs from RFC 7235)
Scope - the obvious

- Apply errata (see RFC 7230 errata etc)
- Update references (not too many, it seems)
- Resolve issues reported at https://github.com/httpwg/http11bis/issues, currently ~3050
- Minimal changes to guide readers to HTTP/2 spec
Scope - the less obvious

Re-organize once more?

- Split information specific exclusively to HTTP/1.1 into a separate document and relabel everything else just "HTTP"
  - ...see draft-bishop-decomposing-http
- Recombine some or all of RFC7231..RFC7235 into a single document

Include stuff that should have been part of HTTP in the first place?

- Status 308 (RFC 7538)
- Authentication-Info and Proxy-Authentication-Info (RFC 7615)
- Client-Initiated Content-Encoding (RFC 7694)
- ...? Maybe draft-ietf-httpbis-rand-access-live?

...advance to full standard? (may might conflict with other goals)
Today:

- Confirm that we want to start - adopt draft-fielding-httpbis-*-00?
- Decide scope & timing
  - Relation to QUIC work (people overlap, potential effects for HTTP over QUIC)
  - Scope will affect how we do things, as potential re-organizations would need to be done very carefully
- Time permitting, talk about individual issues
- Work mode: resolving issues, communicating progress (process different from other HTTPbis work???)
Afterthought: annotating HTML versions of RFCs

We can inline some errata information already (in unofficial variants, that is):

...and we could extend that to information in Github issues.