

IETF 83 - HTTPbis -16/-17/-18/ -19 Changes Overview

<u>Julian Reschke</u>, greenbytes

History

- -16: published August 2011 (after IETF 81)
- -17: published November 2011 (before IETF 82, WG did not meet)
- -18: published January 2012
- -19: published March 2012 (before IETF 83)

Working Group Last Call for Parts 4, 5, 6, and 7 started March 15, ends April 12

Changes - General

- Document HTTP's error-handling philosophy (<u>Ticket 186</u>)
- effective request URI: handling of request-target * (<u>Ticket 222</u>)

Changes - Messaging

- Keep-Alive and Proxy-Connection headers (<u>Ticket 158</u>)
- Retrying Requests (<u>Ticket 297</u>)
- Define non-final responses (<u>Ticket 300</u>)
- closing the connection on server error (<u>Ticket 318</u>)
- Intermediary rewriting of queries (<u>Ticket 324</u>)
- chunk-extensions (<u>Ticket 343</u>)

...plus many editorial improvements

Changes - Syntax

- Explain header registration (<u>Ticket 215</u>)
- Considerations for new headers (<u>Ticket 231</u>)
- \-escaping in quoted strings (<u>Ticket 270</u>)
- does etag value really use quoted-string (<u>Ticket 306</u>)
- header field considerations: quoted-string vs use of double quotes (<u>Ticket 329</u>)
- wording of line folding rule (<u>Ticket 335</u>)

Changes - Status Codes

- Clarify status code for rate limiting (<u>Ticket 255</u>)
- Strength of requirements on Accept re: 406 (<u>Ticket 285</u>)
- expand definition of 413 for header field size limits? (<u>Ticket 299</u>)
- 400 response isn't generic (<u>Ticket 303</u>)
- clarify that 201 doesn't require Location header fields (<u>Ticket 331</u>)
- relax requirements on hypertext in 3/4/5xx error responses (<u>Ticket</u> 332)
- example for 426 response should have a payload (<u>Ticket 333</u>)

...also say "Hello" to 428 (Precondition Required), 429 (Too Many Requests), 431 (Request Header Fields Too Large) and 511 (Network Authentication Required) -- defined in draft-nottingham-http-new-status-04, now in RFC Editor Queue

Changes - Redirects

- Redirects and non-GET methods (<u>Ticket 160</u>)
- Requirements for user intervention during redirects (<u>Ticket 238</u>)
- Applying original fragment to "plain" redirected URI (<u>Ticket 295</u>)
- clarify 303 redirect on HEAD (<u>Ticket 310</u>)
- When are Location's semantics triggered? (<u>Ticket 325</u>)

...also say "Hello" to 308 (Permanent Redirect), -- defined in <u>draft-reschke-http-status-308-06</u>, past IETF LC

Changes - Method Semantics

- message-body in CONNECT response (<u>Ticket 250</u>)
- Content-Range on responses other than 206 (<u>Ticket 301</u>)

Changes - Payload

- Location header payload handling (<u>Ticket 185</u>)
- is ETag a representation header field? (<u>Ticket 330</u>)
- Content-Location doesn't constrain the cardinality of representations (<u>Ticket 338</u>)

Changes - Conditionals/Range

- Security consideration: range flooding (<u>Ticket 175</u>)
- If-Range should be listed when dicussing contexts where L-M can be considered strong (<u>Ticket 304</u>)
- Add limitations to Range to reduce its use as a denial-of-service tool (<u>Ticket 311</u>)
- case sensitivity of ranges in p5 (<u>Ticket 319</u>)

Changes - Caching

- Refining age for 1.1 proxy chains (<u>Ticket 212</u>)
- Combining HEAD responses (<u>Ticket 227</u>)
- Motivate one-year limit for Expires (<u>Ticket 290</u>)
- Interaction of request and response Cache-Control (<u>Ticket 293</u>)
- SHOULD and MAY review in p6 (<u>Ticket 313</u>)
- Cache-Control directive case sensitivity (<u>Ticket 317</u>)
- Field names in cache-control header arguments (<u>Ticket 337</u>)

Changes - Authentication

- Relationship between 401, Authorization and WWW-Authenticate (<u>Ticket 78</u>)
- Realm required on challenges (<u>Ticket 177</u>)
- auth-param syntax (<u>Ticket 195</u>)
- Considerations for new authentications schemes (<u>Ticket 257</u>)
- LWS in auth-param ABNF (<u>Ticket 287</u>)
- credentials ABNF missing SP (still using implied LWS?) (<u>Ticket 309</u>)
- allow unquoted realm parameters (<u>Ticket 314</u>)
- add advice on defining auth scheme parameters (<u>Ticket 320</u>)
- Repeating auth-params (<u>Ticket 321</u>)
- recipient behavior for new auth parameters (<u>Ticket 334</u>)
- WWW-Authenticate ABNF slightly ambiguous (<u>Ticket 342</u>)

Changes - IANA/Registries

- warn-code registry (<u>Ticket 274</u>)
- "Close" should be reserved in the HTTP header field registry (<u>Ticket</u> 305)
- need to reserve "negotiate" as auth scheme name (<u>Ticket 308</u>)
- make IANA policy definitions consistent (<u>Ticket 346</u>)

Changes - Process-Related

- move RFCs 2145, 2616, 2817 to Historic status (<u>Ticket 254</u>)
- Revise Acknowledgements Sections (<u>Ticket 219</u>)
- intended maturity level vs normative references (<u>Ticket 323</u>)