



HTTP Workshop 2016 - Header Fields

[Julian Reschke](#), greenbytes

History

- JFV started as a thought experiment in July 2014 (draft-reschke-http-jfv)
- Adopted as WG document in June 2016 (draft-ietf-httpbis-jfv))
- Motivation is captured in IETF 95 slides: [ietf-95-httpbis-header-field-parsing](#)

Discussion

Current document driven by the goal to make it easier to define new header fields, to be used in both HTTP/1.1 and HTTP/2 -- avoiding predictable problems such as I18N or list syntax.

- Proposed format can be chatty. Several proposals for minimization.
- Embrace list format (repeating header fields), as currently proposed, or try to get rid of it?
- Opt-in per header field definition (current proposal), or applicable more widely? (header field naming convention?)
- Is JSON the right format anyway? Concerns about data model (number formats) and potential interop issues (non-unique member names).
- Is this just a step forwards to a common format that can be used in HTTP/1.1 and HTTP/2, or should we also start to discuss header field formats in future versions of HTTP?
- Suggest recipients to enforce I-JSON ([RFC 7493](#))? UAs might be willing to enforce this.

Timing

- <https://www.w3.org/TR/2016/WD-reporting-1-20160407/#header>
- <https://www.w3.org/TR/clear-site-data/#header>
- <https://wicg.github.io/feature-policy/#feature-policy-http-header-field>

RFC 5987

- A hack for use in parameter values (overloads name syntax, percent-escaping in value).
- Out there, being used in practice in "Content-Disposition" and in theory in "Link" and HTTP Digest auth (the new version). Experimental drafts from HTTPAuth seem to like it.
- Being revised right now, aligning with RFC 723* and incorporating feedback from implementors.

I18N Brainstorming

- Maybe we aren't restricted to "token / quoted-string"? (there are a few characters not in "token" that we could use)
- Maybe we can invent a new type of quoted-string on an opt-in basis, allowing "\unnnn" syntax?
- Maybe just put in UTF-8 BOM in the first three octets of the field value, signaling UTF-8, and get over it?

Generic syntax brainstorming

- Find commonalities in existing header fields (<https://tools.ietf.org/wg/httpbis/trac/wiki/HeaderFieldTypes>, last edit: 2012) try to generalize.
- Map to data model (JSON-ish?).
- ABNF productions for common types?

Links

- Spec: [draft-ietf-httpbis-jfv-00](#)
- Spec: [draft-ietf-httpbis-rfc5987bis-02](#)