IETF HTTP WG 2020-10 Interim - SEARCH Method

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Slides below are mostly from IETF 93 (Prague, 2015).

Meeting minutes show that Call for Adoption (on the mailing list) was planned (but did not happen).

Why?

One of the most FAQs on StackOverflow is: can I send a GET request with a payload?

We should have material that explains why GET with body doesn't work, and what the alternatives are.

Proposal:

Explain the situation:

- Bookmarkability/Cacheability
- Drawbacks of using GET: URIs might leak more frequently than payloads (log files, Referer), some components might fail for long URIs
- Drawbacks of using POST: not safe, thus not repeatable without knowig the semantics of the request
- Explore Content-Location, making the GET-table resource discoverable
- Can URI templates help?

Alternatives to GET and POST

- Use an HTTP method that is defined to support a request payload **and** is safe.
- The method registry already contains three candidates: PROPFIND, REPORT, and SEARCH; all of which defined for WebDAV.
- There is existing code out there which knows about them being safe, so it makes sense to use one of these. It also avoids using yet another method name.
- The most generic of these is SEARCH; we could un-tangle it from WebDAV (without breaking existing uses) by allowing any media type as payload (as in PATCH), and open up the response format as well.

Specifically…:

- Make it as simple as possible.
- Format discovery using Accept-Search response header field (mirrors PATCH).
- Discuss concrete formats in separate specs.
- Explore ways to make the response to SEARCH GET-table and to leverage URI templates so clients can directly construct GET requests once they know about the URI format.

Further reading:

- draft-snell-search-method-02
- RFC 5323: Web Distributed Authoring and Versioning (WebDAV) SEARCH