Detecting Outdated Proxy Configuration

A Lightweight Hinting Mechanism Using HTTP Headers

`draft-rosomakho-httpbis-outdated-proxy-config-01`

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PAC files and PvD configs are pulled by clients

- Multiple mechanisms exist to detect and enforce proxy configuration

- These mechanisms provide a configuration URL, but clients must decide for themselves when to fetch updates

- PAC server can use HTTP headers such as `Expires`

- PvD config has `expires` JSON key

- But proxy configuration updates are not always planned…

Unplanned proxy configuration updates

- Misconfiguration
- Proxy outage not considered by configuration
- Unplanned migration

- To mitigate this PAC files are often fetched frequently (few times a minute) creating unnecessary noise and load…

Proposed solution: client header

- Client MAY inform HTTP proxy about configuration its using and when it was fetched

- Works with any CONNECT-driven HTTP and MASQUE proxies (CONNECT, CONNECT-UDP, CONNECT-IP, and templated CONNECT-TCP)

```
Proxy-Config: url="https://config.example.net/proxy.pac", fetched=@1748736000
```

- URL may be omitted

Proposed solution: proxy header

- Proxy MAY include `Proxy-Config-Stale` boolean response header indicating
  - `?1` = configuration is stale and needs to be refreshed
  - `?0` = configuration is known to proxy and is not stale
- Header can be included in successful or error response if error is not authentication related
- If configuration URL is not known to the proxy, it does not include the header

Changes in -01: allow mechanism only for CONNECT

- Ensure that proxies not familiar with this mechanism do not pass client header to the server

- Explicitly mention that this mechanism is not applicable to "absolute-form" proxying request URI of HTTP/1.1

- Added extra security consideration

Changes in -01: more reasons to omit url

- Client using a mechanism that is not associated with a specific URL (such as device management or local policy)

Thank you!

Should this use a new Proxy-Status parameter instead of Proxy-Config-Stale?

Is there appetite to adopt this work?