Client Hints

IETF 104 - HTTPWG

Privacy Preserving Proactive Content Negotiation

- Server opt-in
 - Prevents passive fingerprinting
- Secure connection only
 - Prevents MITM extraction
- Same-origin only
 - Prevents unauthorized fingerprinting by third parties
- Cross-origin delegation
 - Enables constrained third party legitimate uses

Opt-in mechanisms

- `Accept-CH`
 - Opt in for current navigation
- `Accept-CH-Lifetime`
 - Cached opt in for the origin

Third party delegation

- CH sent only on same-origin by default
 - Prevents information leaks through passive resources
- Delegated to 3P using Feature Policy
 - E.g. `Feature-Policy: ch-example 'self' foobar.com`

`Sec-` Prefix

- Prevent legacy servers bugs
- Enables to avoid CORS preflights
- May enable simpler processing in Fetch

Reduce passive fingerprinting surface

- Planning to replace `User-Agent` and `Accept-Language` with CH alternatives
 - ua-client-hints and lang-client-hint

Changes to the draft

- Removed image-specific hints from it to reduce confusion
 - Hints using infrastructure defined in own specifications
 - Adopting infrastructure does not imply adopting all features
- PRing `Sec-` prefix recommendation
- Overall specification situation: <u>bit.ly/client-hints-spec</u>

Looking for implementer interest

- To move forward IETF draft
- To land Fetch and HTML PRs
- To improve user privacy and experience