

103 Early Hints



DeNA Co., Ltd.

Kazuho Oku

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indicates that the server is likely to send a final request with the headers included in the informational response

Use case 1: trigger H2 push

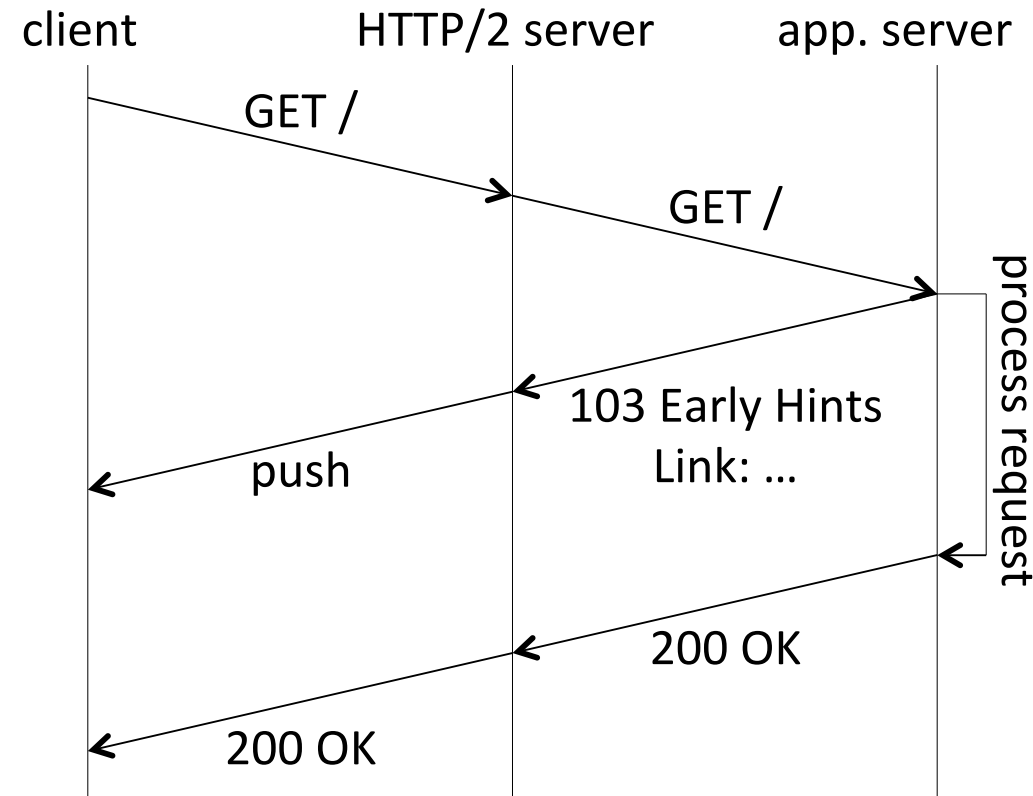
- app. server can be H1
- already implemented by: nghttp2 & H2O
- sending links only is better than H2 push if the intermediary is a cache

```
GET / HTTP/1.1
Host: example.com

HTTP/1.1 103 Early Hints
Link: </style.css>; rel=preload

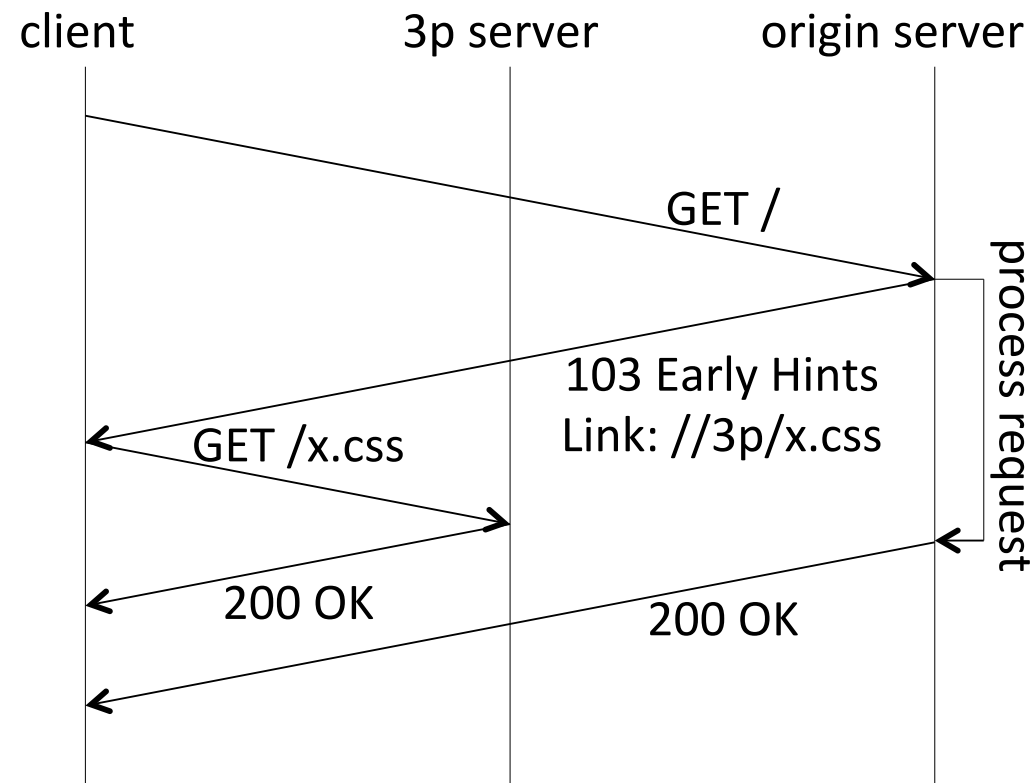
HTTP/1.1 200 OK
Content-Type: text/html
Link: </style.css>; rel=preload

<!DOCTYPE HTML>
...
```



Use case 2: trigger preload of 3rd party assets

- good complement to H2 push
 - with 1 RTT increase
 - note: use of H2 push is limited to same origin



Other use cases

- hint the client to setup a MIME decoder
- hint the client to preload anything:
 - codec, shared dictionary, redirect destination, ...

Existing semantics are preserved

- headers sent in 103 are just hints
 - i.e. some of the headers that are likely to be included in the final response
- in H2, repeating the same header in final response consumes only 1 or 2 octets per header
 - you won't be using H1 if bandwidth matters

TBD

- do we need negotiation?
 - e.g. *Accept-Early-Hints: link*
 - reasoning: many H1 clients would have issues handling the informational response
 - header-based negotiation does not always work
 - since headers are end-to-end by default
 - an intermediary might handle 103 incorrectly