

Local Activity Report in Japan

March 2014
IETF 89
httpbis

Jxck

(<https://jxck.io>)

Hiroataka Nakajima

(<http://www.w3.org/People/Hiro/>)

HTTP

2

JP

Member



and more and more
maybe upto 30~40

Implementations

HTTP2



nghttp2
C
Draft-10



iiij-http2
node.js
Draft-10

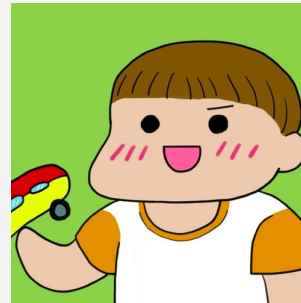


http2-go
Go
Draft-10

HPACK



node-http2-hpack
node.js
Draft-6



haskell-http2
haskell
Draft-6

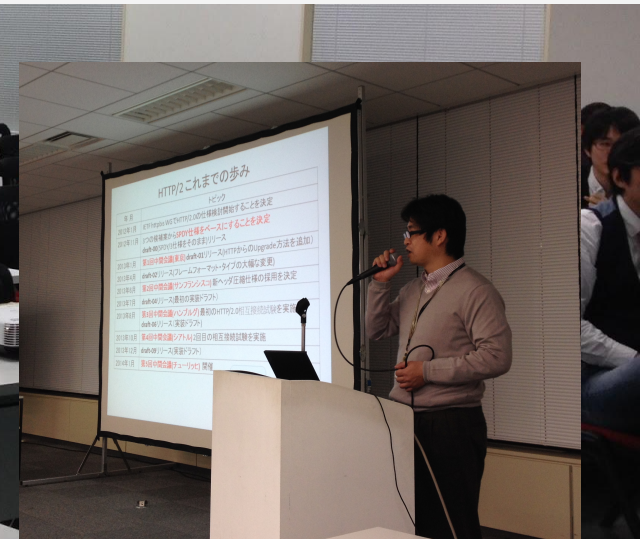
Local Activity in Japan

- **meetup**
 - [#1](#) 2013/Aug, 34 atnds
 - [#2](#) 2013/Oct, 43 atnds
 - [#3](#) 2014/Jan, 60 atnds
- **hackathon**
 - [#1](#) 2013/Oct, 6 atnds
 - [#2](#) 2013/Dec, 9 atnds
 - [#3](#) 2014/Feb, 23 atnds
- **interop**
 - `hpack-test-case`
- **resources**
 - `http://http2.info`

Meetup - #http2study

- Speaker

- tatsuhiro_t (about nghttp2)
- shigeki (about interim)
- fujiwara (about hpack history)
- kazu (about hpack bench)
- etc



Hackathon





HPACK Test Case — Edit

119 commits

1 branch

0 releases

6 contributors



branch: master

hpack-test-case / +

Delete not interesting test cases to reduce maintenance cost



tatsuhiko-t authored 18 hours ago

latest commit 1437181c96

go-hpack	remove context from go-hpack	2 days ago
haskell-http2-diff-huffman	revert directory	3 days ago
haskell-http2-diff	revert directory	3 days ago
haskell-http2-linear-huffman	revert directory	3 days ago
haskell-http2-linear	revert directory	3 days ago
haskell-http2-naive-huffman	revert directory	3 days ago
haskell-http2-naive	revert directory	3 days ago
haskell-http2-static-huffman	revert directory	3 days ago
haskell-http2-static	revert directory	3 days ago
nghttp2-16384-4096	Update nghttp2 output to HPACK-06	18 hours ago
nghttp2	Update nghttp2 output to HPACK-06	

HPACK Test Case

- encode same headers into wire
- interop with other impls

```
{
  "draft": 6,
  "cases": {
    "header_table_size": 4096,
    "headers": [
      { ":method": "GET" },
      { ":scheme": "http" },
      { ":authority": "yahoo.co.jp" },
      { ":path": "/" }
    ],
    "wire":
      "82870388f4466d6912d2717787"
  }
}
```

```
{
  "draft": 6,
  "cases": {
    "header_table_size": 4096,
    "headers": [
      { ":method": "GET" },
      { ":scheme": "http" },
      { ":authority": "yahoo.co.jp" },
      { ":path": "/" }
    ],
    "wire":
      "80808287030b7961686f6f2e636f2e6a7087"
  }
}
```

HPACK Test Case

- compare compression ratio

Compression Ratio

[Edit Page](#)[Page History](#)[Clone URL](#)

The each cell has X (Y/Z) format:

X: Y / Z

Y: Number of bytes after compression

Z: Number of bytes before compression

story	go-hpack	haskell-http2-diff	haskell-http2-diff-huffman	haskell-http2-linear	haskell-http2-linear-huffman	haskell-l-naiv
story_00.json	1.01 (185/183)	0.48 (87/183)	0.36 (65/183)	0.52 (95/183)	0.40 (73/183)	1.23 (225/183)
story_01.json	1.03 (184/178)	0.37 (65/178)	0.31 (56/178)	0.40 (72/178)	0.35 (63/178)	1.24 (221/178)
story_02.json	0.83 (2865/3456)	0.26 (897/3456)	0.19 (653/3456)	0.28 (978/3456)	0.21 (734/3456)	1.09 (3770/3456)
story_03.json	0.85 (2648/3113)	0.19 (590/3113)	0.14 (446/3113)	0.22 (670/3113)	0.17 (526/3113)	1.10 (3430/3113)
story_04.json	0.85 (2648/3113)	0.19 (590/3113)	0.14 (446/3113)	0.22 (670/3113)	0.17 (526/3113)	1.10 (3430/3113)
story_05.json	0.85 (2924/3455)	0.19 (667/3455)	0.15 (507/3455)	0.22 (748/3455)	0.17 (588/3455)	1.10 (3796/3455)
story_06.json	0.85 (2958/3489)	0.29 (1013/3489)	0.23 (797/3489)	0.31 (1099/3489)	0.25 (883/3489)	1.09 (3808/3489)
story_07.json	0.84 (2697/3192)	0.23 (733/3192)	0.18 (559/3192)	0.25 (812/3192)	0.20 (638/3192)	1.10 (3512/3192)
story_08.json	0.84 (3376/4006)	0.30 (1202/4006)	0.24 (942/4006)	0.32 (1272/4006)	0.25 (1012/4006)	1.09 (4349/4006)
story_09.json	0.84 (2781/3309)	0.25 (817/3309)	0.19 (628/3309)	0.27 (894/3309)	0.21 (705/3309)	1.10 (3630/3309)

HTTP/2

JAPAN LOCAL ACTIVITY

Materials

- [HTTP/2 draft-09 \(japanese translation\)](#)
- [HPACK Test Case](#)

Meetup

- [HTTP/2 Study #3](#) (2014/1/28)
- [HTTP/2 Study #2](#) (2013/10/17)
- [HTTP/2 Study #1](#) (2013/08/14)

Hackathon

- [HTTP/2 Hackathon #1](#) (2014/2/23)
- [HTTP/2 Mini Hackathon #2](#) (2013/12/15)
- [HTTP/2 Mini Hackathon #1](#) (2013/10/12)

Presentations

- [HTTP2 最速実装 ～入門編～](#)
- [httpbis interim@チューリッヒ レポート](#)

Writing I-D

- about HTTP/2 and HPACK
 - Survey of Current Implementations
 - Result of Interop test
 - Knowledge of implementation
- Publish
 - as Informational Draft
 - on **April**



thanks :)

Local Activity in Japan