

HTTP in 2019

From 1.0 to 3+

Conventional Wisdom Checkin

Is There a Consensus View?

The Question: Do we have a shared understanding of what the current HTTP problem space consists of? (Even if we don't have a shared view of the solution space.)

Both YES and NO are interesting outcomes.

CAUTION: MANY ASSERTIONS WITHIN

Testing those assertions is the point of this presentation

Category One

Significant Wins

The Happy Stuff
aka Mission Accomplished

H2 Multiplexing

Significant Winner

TCP Initial Window >3

Significant Winner

RST-STREAM

Significant Winner

Interop

Significant Winner

More HTTPS

Significant Winner

More Forward Secrecy

Significant Winner

Category Two

We're Working On It

The Future Looks Bright

We Think We're Pointed the Right Way

TCP Head of Line Blocking

Working on It

TLS Head of Line Blocking

Working on It

Header Compression

Working on It

Zero Latency Restart

Working on It

Initial Window and Connection Management

Working on It

Splitting Semantics and Transport

Working on It

Category Three

Important but $\neg(\neg)$...

Path is unclear but there are competing ideas

Priority

「(ツ)」

Push

「(ツ)」

Bi Directional

「(ツ)」

Cross Stream Compression

「(ツ)」

**Routing: {Alt-Svc, ORIGIN,
Secondary Certs, ESNI}**

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Negotiation: Languages, Formats, Client Hints

└(ツ)┘

Disconnected Cases

$\neg(\neg)$

Tunnels

「(ツ)」

Defined Behavior VS Degrees of Implementation Choice

「(ツ)」

Category Four

Important, But We Have ~~No~~ Limited Ideas

Sad

Tracking

Sad face

Device Management

Sad face

Traffic Analysis

Sad face

DISCUSS