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HTTP/2 Interoperability Survey
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Abstract

This document provides a survey of HTTP/2 [I-D.ietf-httpbis-http2] and HPACK [I-D.ietf-httpbis-header-compression] implementations and interoperability tests based on HTTP/2.0 Testing [I-D.trace-httpbis-http2-test]. Goals of this document are to help improving HTTP/2 specifications and HTTP/2 implementations and deployments.

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1. Requirements

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14, RFC 2119 [RFC2119].

2. Interoperability Test Target

The following implementaions have been tested for interoperability test. Each implementation has been classified according to the roles "client", "server", "intermediary" which are defined in [RFC7230]. Table 1 shows name and roles of tested implementations.

Name	Roles
[nghttp2]	client,server,intermediary
[http2-katana]	client,server
[node-http2]	client,server
[MozillaFirefox]	client
[iij-http2]	client
[AkamaiGhost]	intermediary
[Chromium]	client
[Twitter]	client,server
[http2-go]	client,server
[OkHttp2]	client
[mruby-http2]	client,server
[curl]	client
[cl-http2-protocol]	client,server
[Netty]	client,server
[Jetty]	client,server

Data from <https://github.com/http2/http2-spec/wiki/Implementations>

Table 1: Surveyed Implementations

3. Interoperability Test Area

3.1. Connect

Basic Connection Test is checking if the client and server(or intermediary) are able to establish HTTP/2 connection.

3.2. Upgrade

3.3. Framing

3.4. Flow Control

3.5. Streams and Multiplexing

3.6. Header Compression

3.7. Connection Management

3.8. Stream Prioritization

3.9. Authentication

3.10. Server Push

3.11. TLS Negotiation

3.12. TLS Cipher Suite

3.13. Opportunistic Encryption

3.14. Alternative Services

4. Interoperability Test Results

Table 2 shows interoperability test result.

	ngh ttp 2	http2 -kata na	node- http2	iiij- http2	Twit ter	mruby- http2	cl-http2 -protoco l
[nghttp2]	\	x	x	o	o	o	o
[http2-k atana]	x	\	x	x	x	x	x
[node-ht tp2]	x	x	\	x	x	x	x
[Mozilla Firefox]	o	x	x	o	o	x	x
[Chromiu m]	o	x	x	o	o	x	o
[cl-http 2-protoc ol]	o	x	x	x	x	o	\

Vertical axis: Client, Horizontal: Server

Table 2: Interoperability Test Result - Connection

5. Implementation Survey

TBD.

6. Security Considerations

TBD.

7. IANA Considerations

This document makes no request to IANA.

8. Contributors

9. References

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