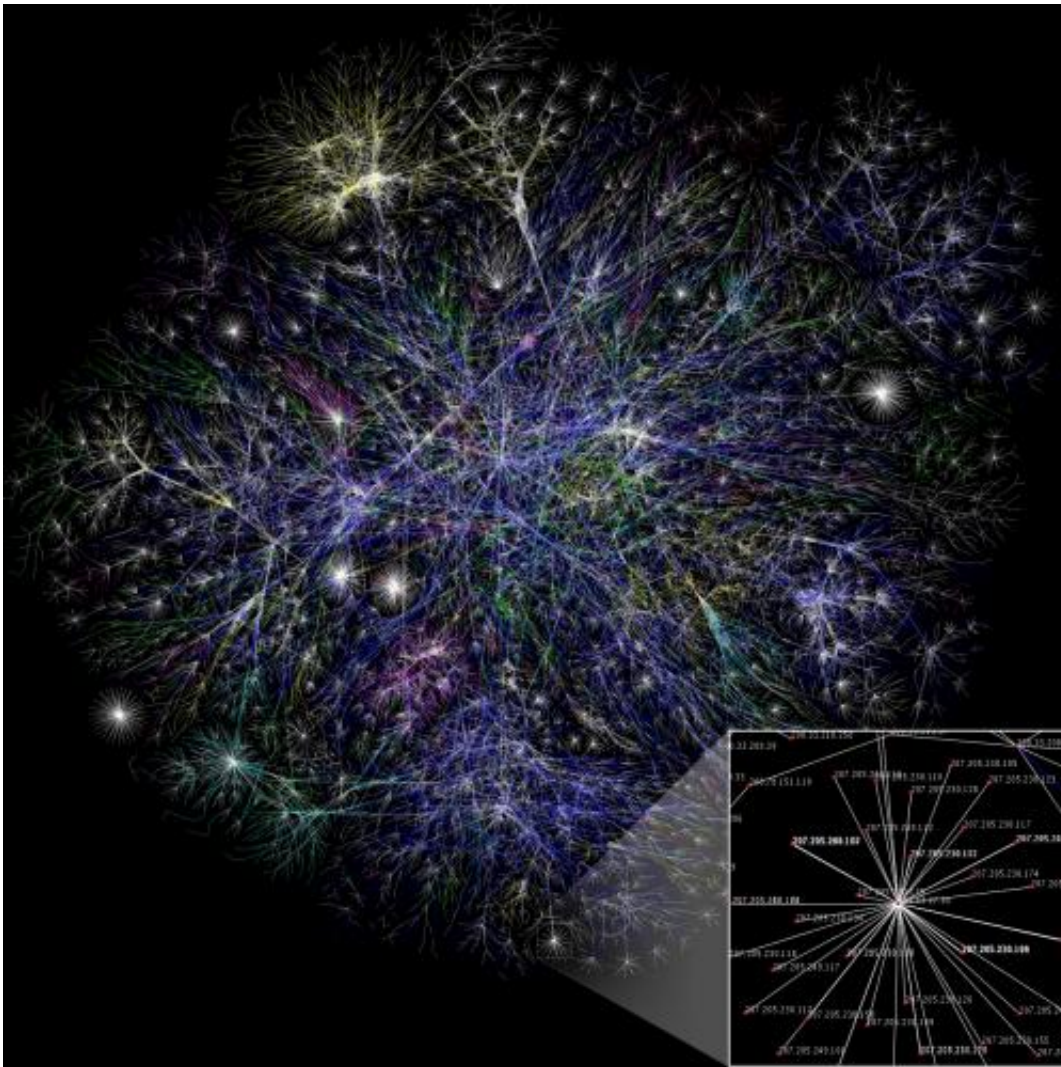# HTTP/2, HPACK specs approved, headed to RFC Editor

February 19 2015, by Nancy Owano

Partial map of the Internet based on the January 15, 2005 data found on opte.org. Each line is drawn between two nodes, representing two IP addresses. Credit: Wikimedia Commons

Wednesday's news about HTTP2, which promises to deliver Web pages to browsers more efficiently, is news enough: It's Done. Mark Nottingham, chair of the IETF HTTP Working Group and a member of the W3C Technical Architecture Group (TAG), blogged that "The IESG has formally approved the HTTP/2 and HPACK specifications, and they're on their way to the RFC Editor, where they'll soon be assigned RFC numbers, go through some editorial processes, and be published." HTTP, of course, is short for Hypertext Transfer Protocol. That may be the only alphabet cluster readily familiar to many. Someone in Nottingham's world, however, as he has helped develop the Web and associated technologies for over 15 years, would easily recognize the other acronyms and get the messages instantly.

IETF stands for The Internet Engineering Task Force and IESG refers to the Internet Engineering Steering Group. HPACK refers to a compression format. It's for efficiently representing HTTP header fields, for use in HTTP/2. According to a HPACK definition, HPACK is a new compressor for header fields which eliminates redundant header fields, limits vulnerability to known security attacks, and has a bounded memory requirement for use in constrained environments. RFC refers to Request for Comments. So what's the big deal?

For HTTP watchers, this is not a big deal; it's a huge deal. HTTP is the fundamental networking protocol that powers the web. New Zealand-based reporter for *The Next Web*, Owen Williams, said "it's the next big version of the Hypertext Transfer Protocol, marking the largest change since 1999 when HTTP 1.1 was adopted." On a Frequently Asked Questions page, the point was made that HTTP 1.1 requests have a lot of overhead associated with them. HTTP/2 was developed by the IETF's HTTP Working Group, which maintains the HTTP protocol. Many contributed to the effort, with the most active participants including engineers from Firefox, Chrome, Twitter, Microsoft's HTTP stack, Curl and Akamai, and HTTP implementers in languages such as Python,

Ruby and NodeJS.

On February 9, an announcement went up on the Chromium blog that the plan was to gradually roll out support for HTTP/2 in Chrome 40 in the upcoming weeks. "We're happy to have contributed to the open standards process that led to HTTP/2," wrote Chris Bentzel, multiplexing manager and Bence Béky, HTTP/2 enabler, "and hope to see wide adoption given the broad industry engagement on standardization and implementation. We also look forward to further advancements in fundamental Internet protocols that lead to a faster and more secure Internet for everyone."

Speaking of a look forward, there is a question on the FAQ page: Will there be a HTTP/3? The answer: "If the negotiation mechanism introduced by HTTP/2 works well, it should be possible to support new versions of HTTP much more easily than in the past."

More information: — www.mnot.net/blog/2015/02/18/http2

— http2.github.io/faq/

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Citation: HTTP/2, HPACK specs approved, headed to RFC Editor (2015, February 19) retrieved 6 May 2024 from https://techxplore.com/news/2015-02-http2-hpack-specs-rfc-editor.html