

A circular wreath of various botanical illustrations surrounds a central white circle. The plants include green ferns, red and green leaves, yellow flowers, and purple flowers.

HTTP Workshop 2022

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New Stuff in HTTP



Areas

Protocol Versions

HTTP Extensions

CONNECT

Security



Introduction

Lots of work has been put in to define new and fancy features for HTTP

Has that work seen adoption?

Do these features address core or niche needs?

What might be blocking adoption?





Core Protocols

HTTP/1.1, HTTP/2, and HTTP/3

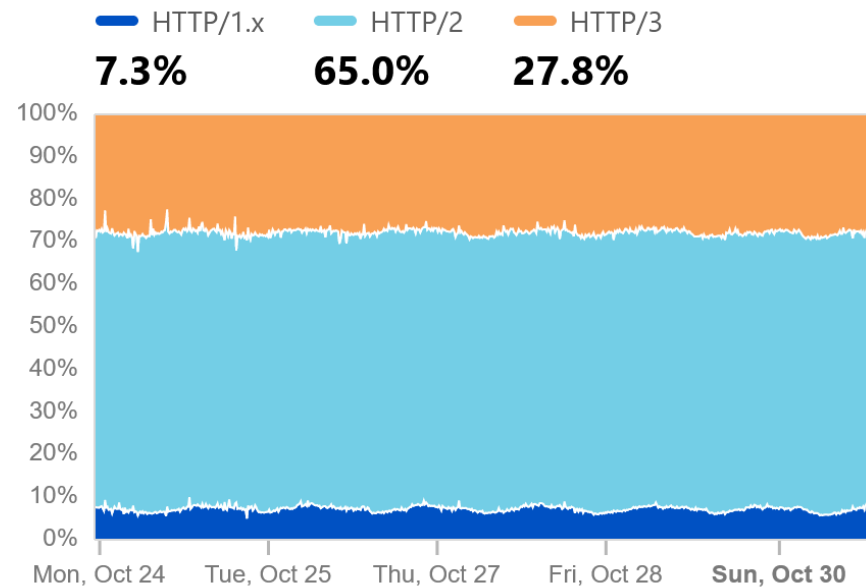


Usage of HTTP Versions

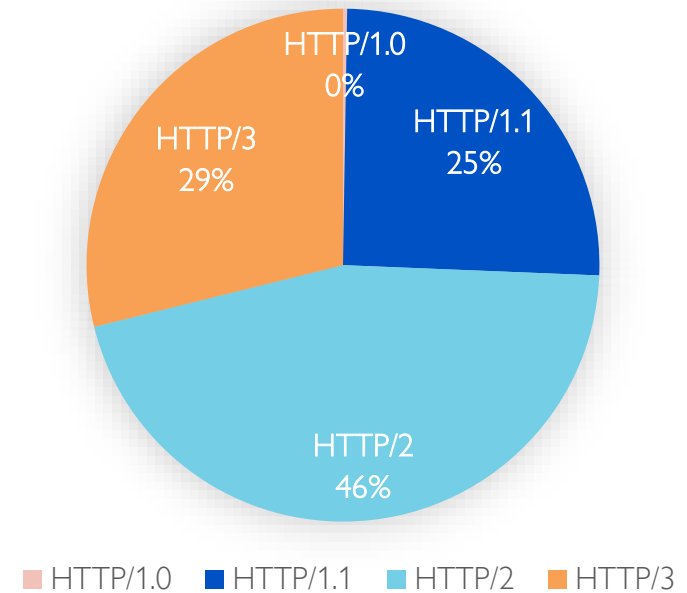


HTTP/1x vs. HTTP/2 vs. HTTP/3 (Cloudflare Radar)

Distribution of traffic by HTTP version (?)



Request Volume (Firefox Beta)





HTTP Extensions



Lots of new control and field options



| Status/Methods | Caching | API | Performance | Other |
|------------------------------|---|--------------------------|-------------|-------------------------------------|
| 451 103 PATCH QUERY | stale-while-revalidate immutable Cache-Status CDN/Targeted | Prefer Link relations | Priority | Alt-Svc WebSockets h2/h3 CICE |



Structured Fields

Structured fields underpins a lot of the work on new fields

How many people use a generic implementation of SF?





CONNECT

New work coming out of MASQUE

- CONNECT-UDP
- Capsule protocol

WebSockets and WebTransport

- New ways of interacting with resources?
- Or just a way to get HTTP out of the way?

Security



TLS 1.3

- Using it yet?
- What about 0-RTT?

New authentication modes?

- Looks like it's bearer tokens all the way on the web
 - Token bindings are dead
- What about client certificates?

Signing, Encrypted Content

- Relative desire for HTTP-native options vs. over-the-top



Discussion

