

Certainly! Let's explore the differences between **HTTP/1.1** and **HTTP/2**:

1. **HTTP/1.1 (Hypertext Transfer Protocol 1.1):**

- **Historical Context:**
 - Developed by **Timothy Berners-Lee** in **1989** as a communication standard for the World Wide Web.
 - Has been the de facto standard for web communication since then.
- **Basic Working:**
 - Clients (such as web browsers) send text-based requests to servers using methods like **GET** or **POST**.
 - Servers respond with resources (e.g., HTML pages, images) based on these requests.
 - Resources are exchanged back and forth until the browser has received everything needed to render the page.
- **Key Points:**
 - **Plain Text Format:** All requests and responses are in plain text.
 - **Multiple TCP Connections:** Requires multiple TCP connections to mitigate **Head-of-Line (HOL) blocking**.
 - **Sequential Loading:** Resources load sequentially, leading to latency.
 - **Less Efficient for Mobile and Graphics-Intensive Content.**

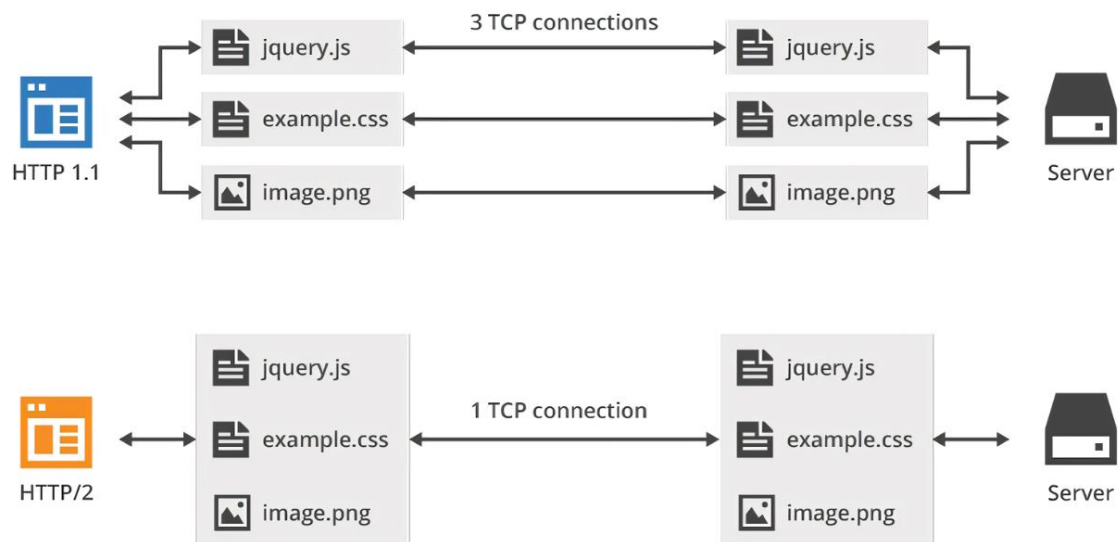
2. **HTTP/2:**

- **Introduction:**
 - Released in **2015** as a reimagined version of HTTP.
 - Aims to decrease latency, especially for mobile platforms and server-intensive graphics/videos.
- **Technical Changes:**
 - **Binary Framing Layer:** Uses binary framing to encapsulate messages while maintaining HTTP semantics (verbs, methods, headers).
 - **Multiplexing:** Avoids network delay by using multiplexing within a single connection.
 - **Customizable Prioritization:** Developers can prioritize the order in which web assets load.
 - **Efficient Resource Loading:** Parallel loading of resources.
- **Performance:**
 - **Faster and More Reliable** than HTTP/1.1.

- **Customizable Prioritization** allows better control over resource loading.
- **Avoids Network Delay** through multiplexing.

In summary, HTTP/2 offers significant improvements over HTTP/1.1, making it a preferred choice for modern web development.

Multiplexing



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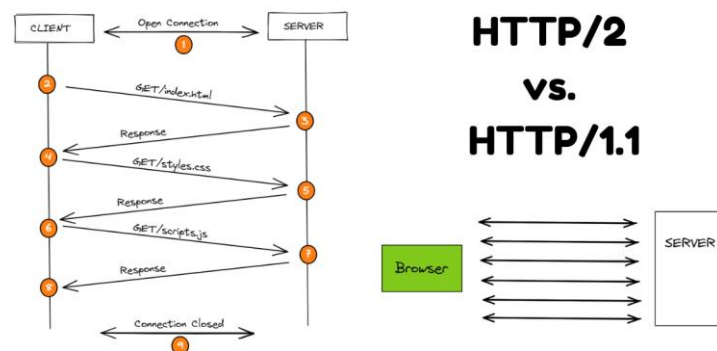
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