***Difference between HTTP1.1 vs HTTP2***

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| ***HTTP1.1*** | ***HTTP 2*** |
| HTTP 1.1 has been in the development process which is parallel with the release of HTTP 1.0 a goal that aims for standardized the HTTP protocol. | Accounting for the drawback of HTTP 1.1, during the 2010s Google was developing an experimental protocol called SPDY that allows more effective data transmission which then serves as the foundation of the HTTP 2 protocol in 2015. |
| After one year the release of HTTP 1.0, HTTP 1.1 was introduced which improves server functions from its father while clarifying the ambiguities. | HTTP 2 eliminates the HOL problem with multiplexing and allows clients and servers to send multiple requests and responses on a single TCP connection. |
| The connection now can be reused to execute several requests within a single TCP connection. This dramatically improves the performance of the new HTTP when eliminating the need to establish a new TCP connection for each request. | Instead of a text-based format like HTTP 1.1, HTTP 2 is a binary protocol making it better at parsing and processing data. |
| HTTP 1.1 is required to include the Host header in the request which allows servers to handle multiple domain names using the same IP address enabling better server resource utilization and facilitating the hosting of multiple websites on a single server. | To resolve headers that got duplicated when sending massive HTTP request, HTTP 2 compresses request and response headers which removes the duplication and improve the efficiency of the overall size of HTTP requests and responses. |
| One of the new features of HTTP 1.1 was that it allows a second request to be sent while waiting for a response from the first one. This helps in reducing the latency of the connection. | HTTP 2 introduced the server push mechanism that allows servers to initially send the resources to clients and store them in the client’s cache without waiting for clients to send requests. |
| This version added six new methods: PUT, PATCH, DELETE, CONNECT, TRACE, and OPTIONS. | HTTP 2 allows clients and servers to assign priorities on a batch of requests which we can control the order of expected responses. This prioritization helps ensure that more critical resources are delivered first, improving user experience and page load times. |
| The new HTTP standardized which content will be exchanged by clients and servers. | With the adaptation of modern technology, HTTP 2 steadily reduces the number of TCP connections when comparing with its predecessor. |
| Additionally, a bunch of new caching mechanisms were introduced such as the Cache-Control header, allowing clients and servers to control caching behavior more effectively. | In order to remain backward compatible with HTTP 1.1, the protocol had to retain the same POST and GET requests, status codes (200, 301, 404, and 500), and so on. |