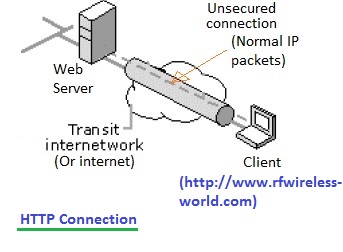
 Difference between HTTP1.1 vs HTTP2

HTTP is the short form of Hypertext Transfer Protocol. It is the foundation for World Wide Web. It is used by browsers in order to load web pages. Acronym for Hypertext Transfer Protocol, HTTP is the protocol used to send and receive information on the web, and it’s based on requests and responses between clients and servers. The basic operation of HTTP goes as follows: the client — a browser or device making a request — requests a certain resource by sending an information packet containing some headers to a URL. The server receives this information and returns a response.



**HTTP/1 Protocol:**

• It was released in 1997.  
• It uses text-based commands for HTTP requests.  
• It added many performance enhancements e.g. caching, request pipelining, connections, transfer encoding, byte-range requests, etc.  
• It can load one request at a time. Hence one request per TCP connection is possible.

**HTTP/2 Protocol:**

• It was released in Feb. 2015 by IERF.  
• It is binary and not textual.  
• It is fully multiplexed.  
• It interleaves multiple requests/responses in parallel without blocking anyone.  
• It uses a single TCP connection to deliver multiple requests/responses (in parallel).  
• It uses header compression in order to reduce overhead.  
• It allows servers to "push" responses into client caches proactively.

What is HTTP/1.1? And Key Features of HTTP/1.1 HTTP 1.1version was introduced in 1997. This is the major version of the HTTP network protocol used by the World Wide Web. HTTP is a top-level application protocol that exchanges information between a client computer and a local and remote web server.  This version introduces many performance enhancements like caching mechanism, transfer encoding, keep-alive connections, byte-range requests, and request pipelining. This protocol worked for 15 years almost.

* Http 1.1 provided support for chunk transfer that allowed the streaming of content.
* Cache-control to specify policies in both requests and responses
* The upgrade header indicates a preference from the client to switch to a more preferred protocol.
* Content negotiation
* HTTP 1.1 had no requirement when Http 2 version was launched in 2015.

What is HTTP/2? And Key Features in HTTP/2

HTTP 2 is the new version of HTTP 1.1. The protocol was introduced back in February 2015 by the Internet Engineering Task Force (IETF) HTTP working group. The newish protocol transport data to drastically speed up the web and can help boost your [**Search Engine Optimization**](https://www.curvearro.com/in/locations/kolkata/). It uses new technologies to provide full multiplexing connections. I would say HTTP 2 is a much-needed upgrade to the HTTP protocol; it manages the communication between browsers and web servers. Moreover, HTTP 2 provides a dramatic speed boost for the website.

* HTTP/2 allows for the compression of HTTP header information. It compresses the request and response header metadata using the HPACK compression format. This optimization reduces the amount of header data by over 80%.
* This permits the webserver to preemptively send resources to a client before the client requests them. The server knows what to send because it is already aware of the resources the page requires. After it transmits the original web page, it can immediately advertise the remaining elements. This technique removes the cycle where the browser has to examine the web page code and make additional requests. For example, a server can proactively send the client .css and .js files to go along with the html code. This can be wasteful if the resources are not needed, and in practice, this feature is inconsistently used. Fortunately, HTTP/2 allows the client to decline the resources if it does not want them.
* HTTP/2 also permits the client to prioritize any pending requests. It can assign each stream a weight and mark a stream as being dependent on another stream. This triggers the server to allocate the parent stream or high-priority item first.
* HTTP/2 provides clients and servers with the ability to implement flow control according to their own specifications. HTTP/2 flow control is credit-based, with credits incrementing and decrementing according to network activity. Each side is permitted to set and change its own window size.

ADVANTAGES OF HTTP/2

The use of HTTP/2 is highly recommended as it significantly enhances the browsing experience for end-users and has no real drawbacks. Both the client and the server benefit from the performance improvements decreased latency and reduced metadata overhead. HTTP/2 uses fewer connections, significantly diminishing the demand for memory and resources on the server side. For HTTPS, fewer negotiations and handshakes are required.

The main criticism of HTTP/2 is that it duplicates tasks TCP already handles and violates the protocol layer hierarchy. However, this issue is not likely to concern most users.

SEO Benefits

Google is all about page speed and they reward sites that improve their speed. They’re extremely focused on user experience, and faster page speeds are a huge step in the right direction. In addition, with mobile users increasing, one of the biggest SEO benefits of upgrading to HTTP/2 is that it will lead to faster load times on mobile devices—resulting in a better user experience.