**HTTP 1.1**

HTTP 1.1 is the latest version of Hypertext Transfer Protocol ([HTTP](https://www.techtarget.com/whatis/definition/HTTP-Hypertext-Transfer-Protocol)), the World Wide Web application [protoco](https://www.techtarget.com/searchnetworking/definition/protocol)l that runs on top of the Internet's [TCP/IP](https://www.techtarget.com/searchnetworking/definition/TCP-IP) suite of protocols. HTTP 1.1 provides faster delivery of Web pages than the original HTTP and reduces Web traffic. Developed by a committee of the Internet Engineering Task Force ([IETF](https://www.techtarget.com/whatis/definition/IETF-Internet-Engineering-Task-Force)) that includes the Web's chief creator Tim Berners-Lee, HTTP 1.1 is supported by the latest Web servers and browsers.

## **HTTP/1.1 Features**

Instead of opening and closing a connection for each application request, HTTP 1.1 provides a *persistent connection* that allows multiple requests to be batched or *pipelined* .

The underlying Transmission Control Protocol layer can put multiple requests (and responses to requests) into one TCP segment that gets forwarded to the [Internet Protocol](https://www.techtarget.com/searchunifiedcommunications/definition/Internet-Protocol) layer for [packet](https://www.techtarget.com/searchnetworking/definition/packet) transmission.

 Because the number of connection and disconnection requests for a sequence of "get a file" requests is reduced, fewer packets need to flow across the Internet.

Since requests are pipelined, TCP segments are more efficient. The overall result is less Internet traffic and faster performance for the user.

When a browser supporting HTTP 1.1 indicates it can decompress HTML files, a server will compress them for transport across the Internet, providing a substantial aggregate savings in the amount of data that has to be transmitted. (Image files are already in a compressed format so this improvement applies only to HTML and other non-image data types.)

In addition to persistent connections and other performance improvements, HTTP 1.1 also provides the ability to have multiple domain names share the same Internet address ([IP address](https://www.techtarget.com/whatis/definition/IP-address)). This simplifies processing for Web servers that host a number of Web sites in what is sometimes called virtual hosting.

**HTTP 2**

HTTP/2 is the second version of the HTTP protocol aiming to make applications faster, simpler, and more robust by improving many of the drawbacks of the first HTTP version.

The primary goals of HTTP/2 are:

* Enable request and response multiplexing
* Header compression
* Compatibility with the methods, status codes, URIs, and header fields defined by the HTTP/1.1 standard
* Optimized prioritization of requests, making sure that loading for optimal user experience is as fast as possible
* Support for server-side push
* Server-side backwards compatibility, making sure servers can still serve clients only supporting HTTP/1.1 without any changes
* Transforming to a binary protocol from the text-based HTTP/1.1

## **HTTP/2 Features**

Some key features of HTTP/2 include:

* **Binary:**Meaning commands use 1s and 0s and not text
* **Multiplex:**Permits multiple requests and responses to be sent at the same time
* **Compression:**Compresses headers that have been requested previously to make things more efficient
* **Stream prioritization:** This allows for the exchange of successive streams at one time
* **Server push:** The server can send additional information needed for a request before it is requested
* **Increased security:** HTTP/2 is supported through encrypted connections