**Difference between HTTP1.1 vs HTTP2**

**Introduction**

HTTP stands for hypertext transfer protocol and it is used in client-server communication. By using HTTP the user sends the request to the server and the server sends the response to the user. HTTP1.1 was created in 1997 and HTTP2 was created in 2015. After HTTP2 came into use, it offered several methods to decrease latency, especially when dealing with mobile platforms and server-intensive graphics and videos.

Here are some key differences between them:

1. **Multiplexing:** HTTP2 allows multiple requests and responses to be sent and received in parallel over a single connection. In contrast, HTTP1.1 uses a request-response model, where only one request can be outstanding at a time on a single connection. This multiplexing capability of HTTP2 reduces latency and improves page loading times.

1. **Header Compression:** HTTP2 uses header compression techniques (HPACK) to reduce the overhead of sending headers with each request and response. In HTTP1.1, headers are sent in plain text with each request and response, leading to higher data transmission sizes.

1. **Binary Protocol:** HTTP2 uses a binary protocol, which is more efficient for parsing and transmission by machines. HTTP1.1 uses a text-based protocol, which is more human-readable but less efficient in terms of parsing and transmission.

1. **Server Push:** HTTP2 introduces server push, allowing servers to send additional resources (e.g., CSS, JavaScript) to the client before the client requests them. This can improve page loading times by reducing the need for additional round trips.

1. **Connection Handling:** In HTTP1.1, each request/response pair typically requires a new connection to the server, which can be resource-intensive. In HTTP2, a single connection can be reused for multiple requests and responses, reducing the overhead of establishing and tearing down connections.

1. **Compatibility:** HTTP1.1 is widely supported and compatible with virtually all web servers and browsers. HTTP2 is also well-supported but may require additional server and browser configuration. However, most modern browsers and servers support HTTP2 by default.

1. **Performance:** HTTP2 generally offers better performance, especially for loading complex web pages with multiple resources. It reduces the effects of “head-of-line blocking” seen in HTTP1.1, where a slow-loading resource can block other resources from loading.

**Conclusion**

HTTP2 is designed to improve the efficiency and speed of web communication compared to HTTP1.1 by introducing features like multiplexing, header compression and server push. However, the adoption of HTTP2 may depend on server and browser support and configuration.