HTTP1.1 vs HTTP2

***INTRODUCTION :***

* **HTTP ( Hyper text transfer protocol) is the foundation of data communication on the World Wide Web. Over the years, it has evolved to meet the growing demands of web applications. Two major versions, HTTP1.1 and HTTP2 have played crucial roles in shaping the way data is transmitted between clients and servers. In this blog, we will look into the key differences between HTTP1.1 and HTTP2.**

1. ***CONNECTION HANDLING :***

* **HTTP1.1 - Uses a separate connection for each request, leading to potential latency issues.**
* **HTTP2 -** Implements multiplexing, allowing multiple requests and responses to be sent concurrently over a single connections. This significantly improves efficiency.

1. ***BINARY PROTOCOL :***

* **HTTP1.1 - Uses a textual protocol, which is human-readable but can be inefficient in terms of parsing and processing.**
* **HTTP2 - Introduces a binary protocol, making it more efficient for machines to interpret and reducing the amount of data transmitted.**

1. ***SERVER PUSH :***

* **HTTP1.1 - Requires multiple requests to fetch linked resources, resulting in a slower loading process.**
* **HTTP2 - Introduces server push, allowing the server to push resources to the client before they are explicitly requested. This can significantly reduces latency and improves loading times.**

1. ***TLS USAGE :***

* **HTTP1.1 - TLS ( Transport Layer Security ) is optional, leading to potential security vulnerabilities.**
* **HTTP2 - Encourages the use of TLS by making it a requirement, enhancing security and privacy for data transfer.**

1. ***SECURITY :***

* **HTTP1.1 - Security is primarily addressed through the use of HTTPs.**
* **HTTP2 – Encourages the use of HTTPs and is designed with modern security considerations in mind.**

***CONCLUSION :***

* **In conclusion, the transition from HTTP1.1 to HTTP2 brings significant improvements in terms of performance, efficiency, and security. The adoption of HTTP2 by web servers and browsers is steadily increasing, as the industry recognizes the need for faster and more reliable web experiences. Understanding the differences between these two versions is crucial for developers and IT professionals aiming to optimize their web applications in an ever – evolving digital landscape.**