In the past, people have tried to create ways of having two-way data connections through the web. Some actually succeeded but proved to have many flaws for one reason or another. They had issues with firewalls and proxies, and all had a large footprint that added to latency. Enter the WebSocket.

“The HTML5 WebSockets specification defines an API that enables web pages to use the WebSockets protocol for two-way communication with a remote host. (Kaazing, n.d.).” Originally part of the HTML5 specification, WebSockets was moved to its own standard. The technology allows for two way, or full-duplexing connections over HTTP port 80 and 443. This means that two WebSocket-based applications can communicate with each other, directly, over a web connection. This allows the data packets being sent back and forth to be smaller due to not needing header information, and it’s faster because of less latency.

Innating a WebSocket consists of a handshake that starts with a browser request. If the server recognizes the WebSocket request header, it will send back a response that will trigger the switch from HTTP to WebSocket connection. With the use of the WebSocket protocol API, application can navigate through firewalls and through proxies.

“WebSockets enables instant data exchange and is supported by all modern browsers. Put it to use immediately in your Web apps. (Freeman, 2013)” Applications like multiplayer games, real time stock updates, sports updates, location-based apps, all make great candidates for the use of WebSockets.

In conclusion, the real-time connection of WebSockets makes it a very powerful and useful technology. It’s ease of use and widespread adoption by all the major browsers makes using it as easy as a handshake.

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