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# What is the difference between web sockets, long polling, server-sent events and forever frame?

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I'm currently exploring SignalR, this technology supports transports (web wockets, long polling ,server-sent events and forever frame).

I have understood the terminology web sockets and long polling. But what is Server-Sent Events and Forever Frame?

How all four differ from each other?

[websocket](#)[signalr](#)[long-polling](#)[server-sent-events](#)

edited Sep 4 '14 at 3:34



[JasonMArcher](#)

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asked Oct 7 '13 at 13:55



[sundar](#)

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Information on all the transport types can be found in the Introduction to SignalR document at [asp.net/signalr/overview/getting-started/...](http://asp.net/signalr/overview/getting-started/...) – [davidfowl](#) Oct 7 '13 at 16:35

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## 1 Answer

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### Transports and fallbacks of SignalR:

#### WebSocket Full-duplex

Websocket is a full-duplex communication channels over a single TCP connection. When both server and browser support, it is the **only transport that establishes a true persistent, two-way connection** between client and server.

#### Server Sent Events Simplex

also known as EventSource is a technology where a **browser receives automatic updates from a server** via HTTP connection. The Server-Sent Events EventSource API is standardized as part of HTML5 by the W3C.

#### Forever Frame One request -> One infinite response

Forever Frame creates a **hidden IFrame** which makes a request to an endpoint on the server **that does not complete**. The server then continually sends script to the client which is immediately executed, providing a one-way realtime connection from server to client. The connection from client to server uses a separate connection from the server to client connection, and like a standard HTTP request, a new connection is created for each piece of data that needs to be sent.

#### Ajax long polling (One Request -> One Response [but delayed]) repeated

Long polling does not create a persistent connection, but instead polls the server with a **request that stays open until the server responds**, at which point the connection closes, and a new connection is requested immediately. This may introduce some latency while the connection resets

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<https://docs.microsoft.com/en-us/aspnet/signalr/overview/getting-started/introduction-to-signalr>  
[https://en.wikipedia.org/wiki/Server-sent\\_events](https://en.wikipedia.org/wiki/Server-sent_events)

edited Aug 17 '17 at 7:12

answered Aug 4 '17 at 15:28



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