

WebSockets, Realtime, and You

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Realtime Comm

1. Polling
2. Long Polling (aka Comet, Hanging Get)
3. Server Sent Events
4. WebSockets
5. Custom Sockets

WebSockets

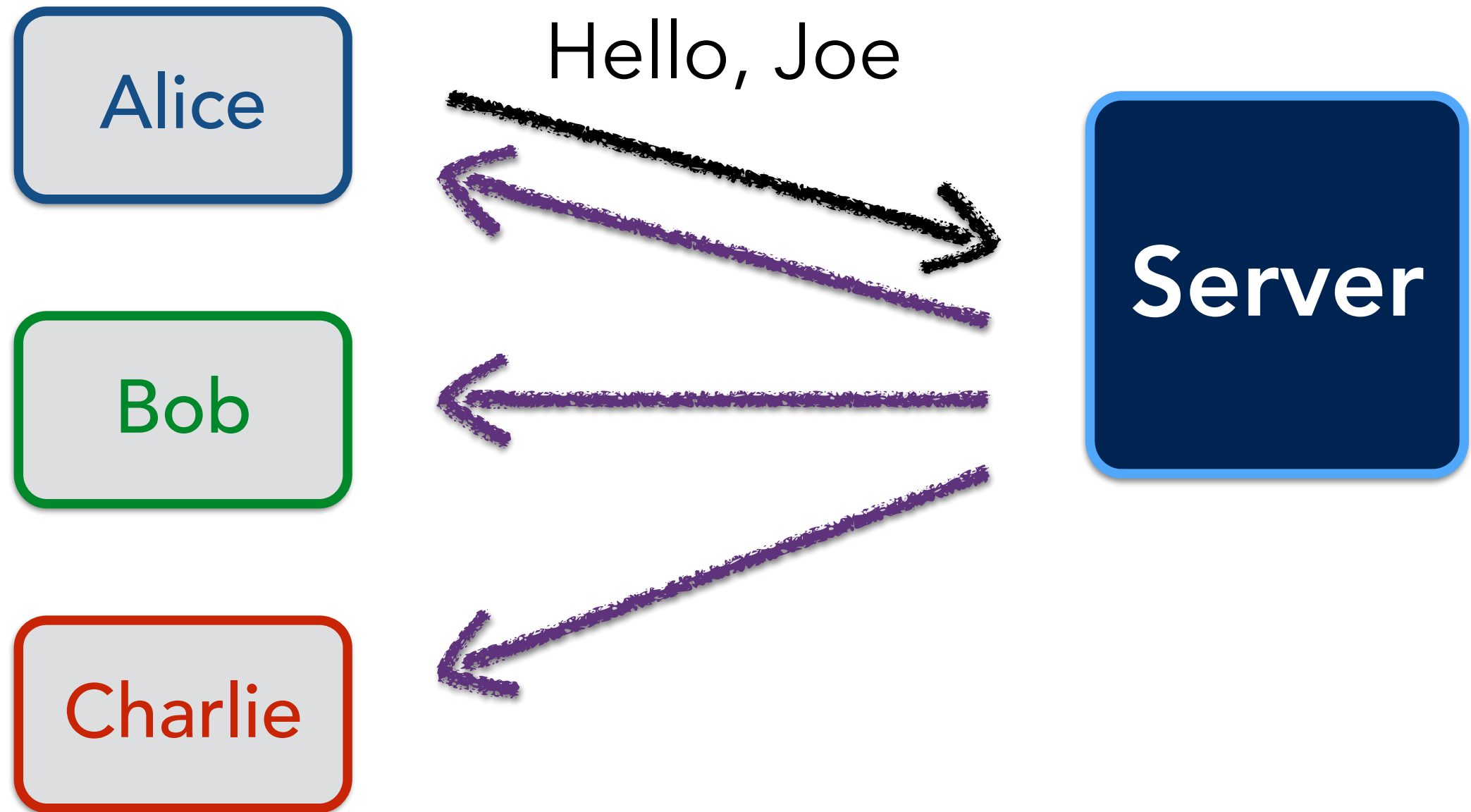
- bi-directional
- full-duplex
- low latency
- TCP-based (not HTTP)
- port 80 by default

WebSockets in my browser?

- How do you find out what HTML5 / CSS3 / Javascript features are available on which browser and version?

<http://caniuse.com>

Chat Room



Chat - Javascript

```
var conn = new WebSocket('ws://www.example.com:7006/chat/');

conn.onopen = function(evt) {
    console.log('Connected!');
};

conn.onclose = function(evt) {
    console.log('Disconnected!');
    conn = null;
};

conn.onerror = function(evt) {
    console.log('Error!');
    conn = null;
};

conn.onmessage = function(evt) {
    $('#msg').append('<p>' + evt.data + '</p>');
}
```

Chat - Objective-C

```
-(void)webSocketDidOpen:(SRWebSocket *)ws {
    NSLog(@"websocket open");
}

-(void)webSocket:(SRWebSocket *)ws didCloseWithCode... {
    NSLog(@"websocket close: %ld %@", (long)code, reason);
}

-(void)webSocket:(SRWebSocket *)ws didFailWithError... {
    NSLog(@"websocket err: %@", error);
}

-(void)webSocket:(SRWebSocket *)ws didReceiveMessage... {
    NSLog(@"websocket msg: %@", message);
    [self.messages addObject:(NSString *)message];
}
```

Sub-Protocol



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Sub-Protocol

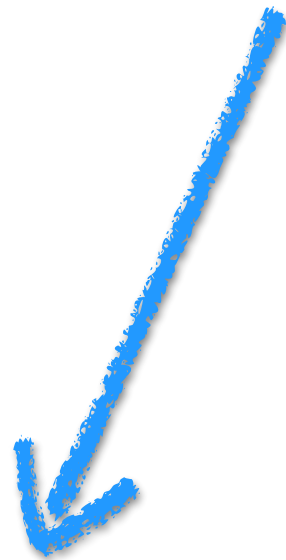
Name



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Sub-Protocol

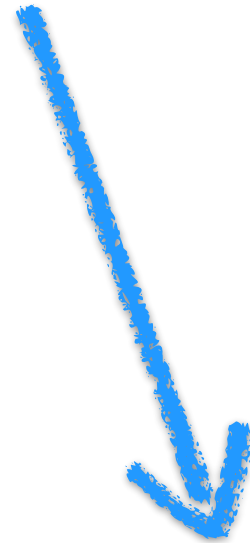
Separator



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Sub-Protocol

Message



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Chat Demo

Feed

- simple SpriteKit-based game
- realtime multiplayer
- works, but missing some stuff...
 - lobby/matchmaking
 - end game
 - error handling

Get the Code

[http://github.com/saturnboy/
websockets_and_you](http://github.com/saturnboy/websockets_and_you)

Links

- W3C WebSocket API

<http://dev.w3.org/html5/websockets/>

- SocketRocket

<https://github.com/square/SocketRocket>

- Jetty WebSockets Server API

<http://www.eclipse.org/jetty/documentation/current/jetty-websocket-server-api.html>



github.com/saturnboy

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