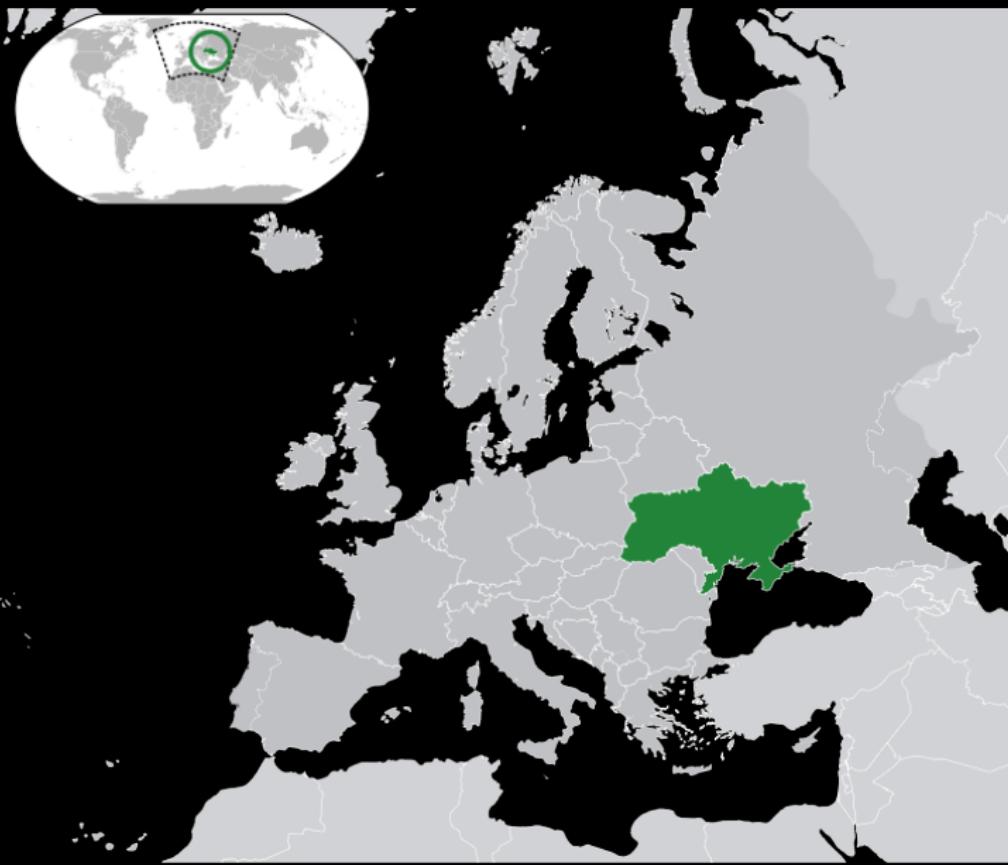


# Working with WebSockets in Perl

Viacheslav Tykhanovskyi (vti)

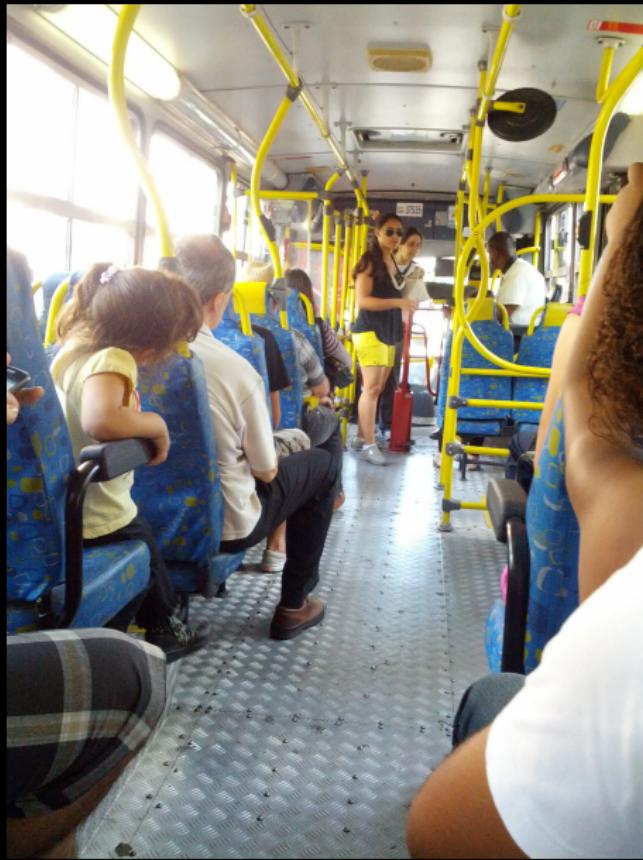
February 17, 2013



THIS IS NOT IN RUSSIA!!1

Brazil 2012













Serious stuff

HTML5  
First draft in 2008

WebSockets  
full duplex and persistent  
tcp connections

# HTTP/1.1 handshake

## Client – Frames – Server

```
var ws = new WebSocket('ws://localhost');
ws.onmessage = function(e) {
    var message = e.data;
    alert('Got new message: ' + message);
};
ws.send('Hello, world!');
```

RFC 6455

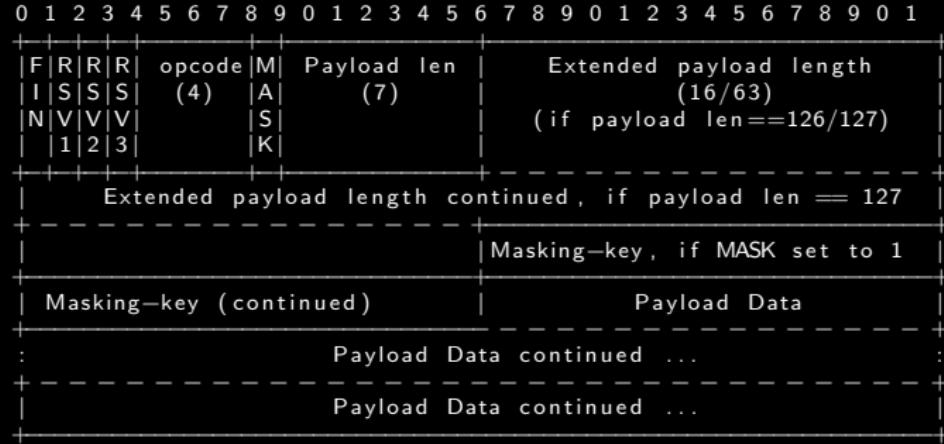
Once upon a time...

Draft 75 (hixie)

Draft 76 (00-hybi)  
Sec- and challenge (proxy fail)

10-hybi  
New frame!

\x00DATA\xff



Sec-WebSocket-Version: 8

17-hybi (RFC 6455)  
Sec-WebSocket-Version: 13

# Browsers

The things start to get serious

### Draft #75

Chrome 5  
Safari 5.0  
Android 2.x

### Draft #76

Firefox 4b (disabled)  
Safari 5.0.2  
Chrome 6–13  
Opera 10.70 (disabled)

iOS 4.2

### Draft #10

Firefox 10  
Chrome 14

### RFC 6455

Chrome 14+  
Firefox 10+  
IE 10

## Special cases

Firefox 7  
Connection:keep-alive, Upgrade

# HAProxy

Read handshake headers

Write handshake headers

    Read the body part

    Accept the handshake

# Perl implementations

# Mojolicious RFC 6455

Protocol::WebSocket (Dancer,  
Net::Async::WebSocket, Web::Hippie)  
75, 76 (00), 10, 17, RFC 6455 + browser  
workarounds

# WebSocket fallbacks

Flash

<https://github.com/gimite/web-socket-js>

Requires policy server (843 port or inline)

Socket.IO  
<http://socket.io/>  
PocketIO — Perl implementation

SockJS

<https://github.com/sockjs/sockjs-client>

SockJS-Perl — Perl implementation

# Examples

## 1. Protocol::WebSocket console

## 2. Showmethedrawing

### 3. Showmetheshell

Obrigado!