# WEB SOCKETS VS SERVER SENT EVENTS

## 

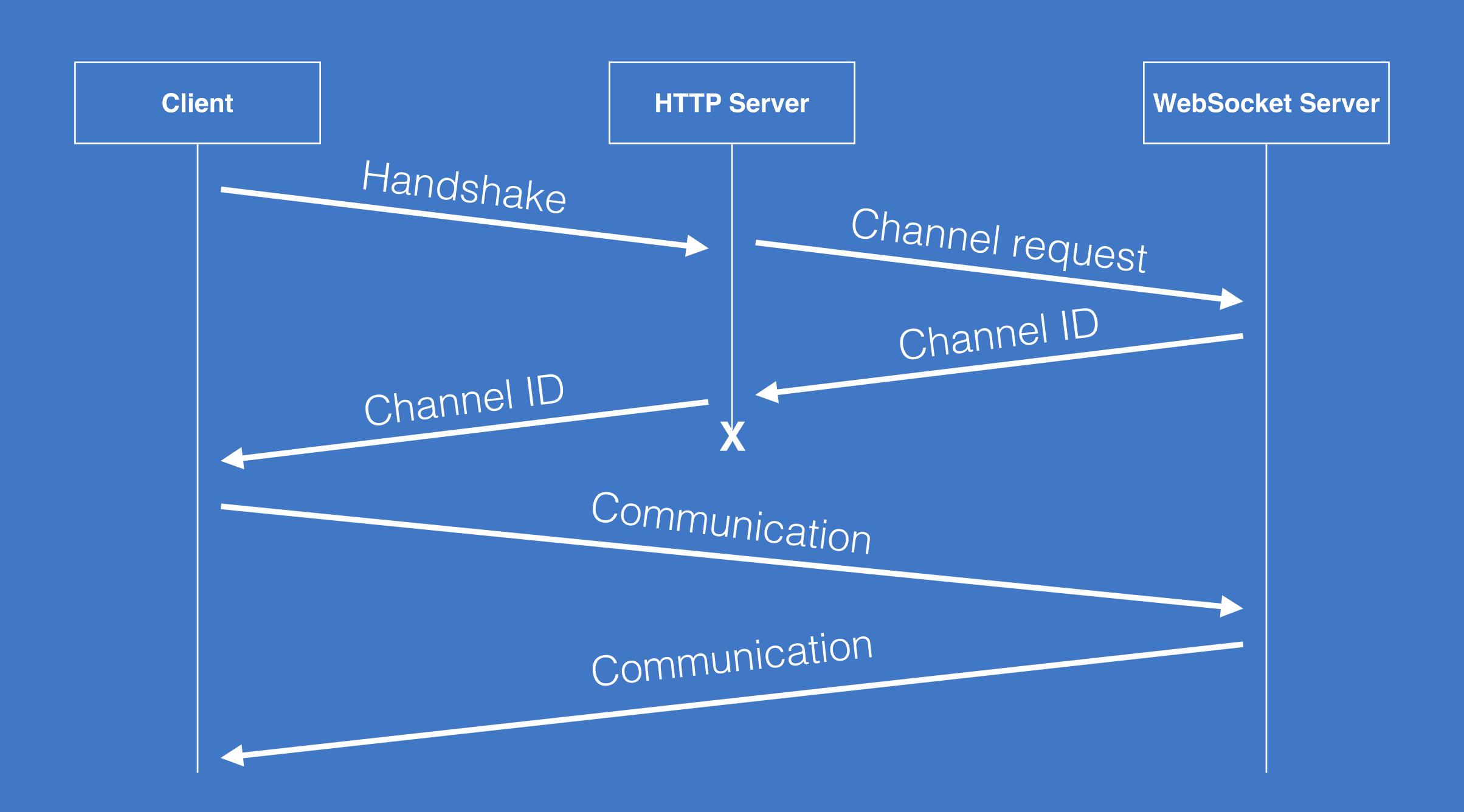
# Realtime client-server communication

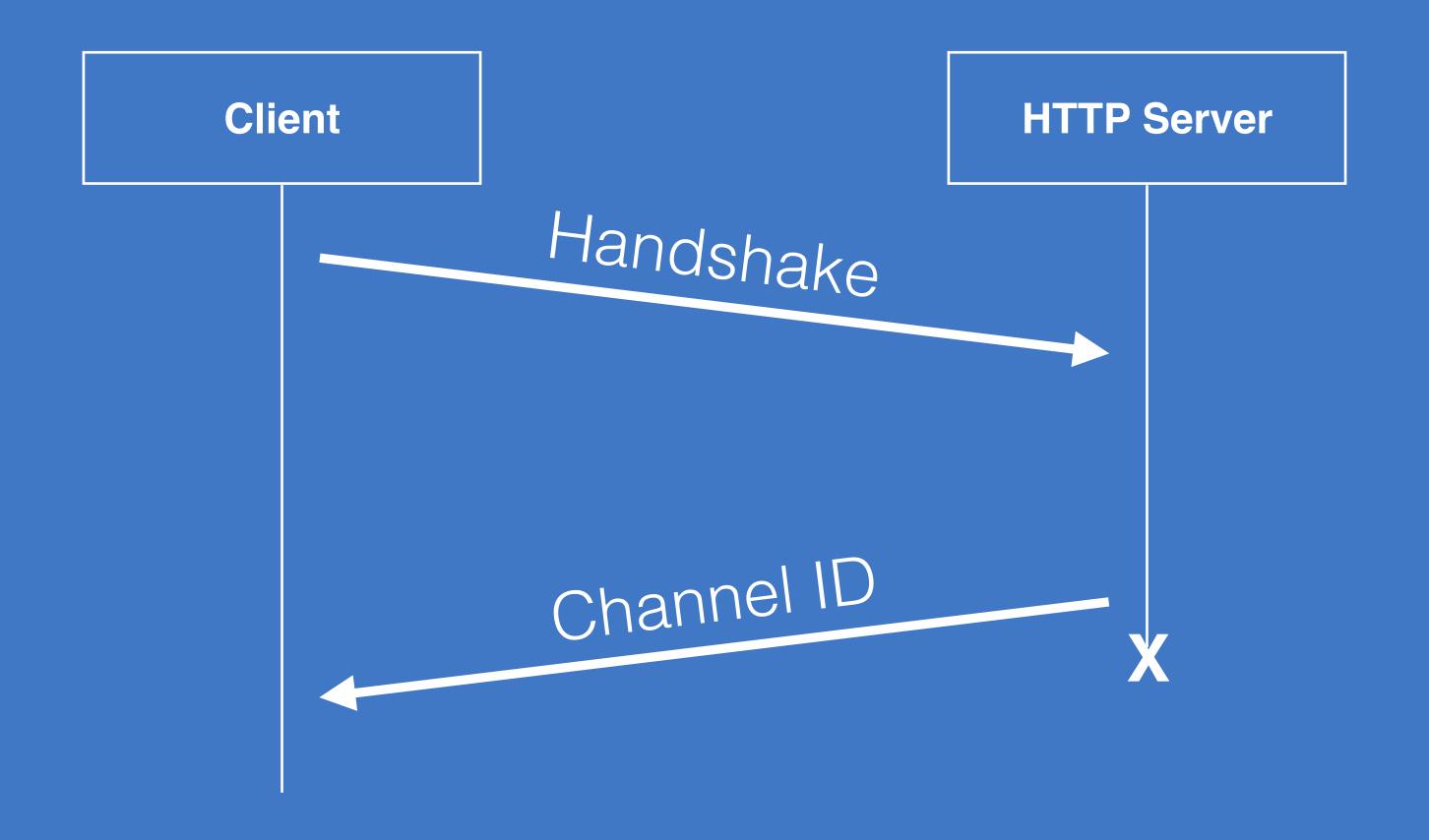
### WEB SOCKETS

## Introduced in 2011 RFC 6455

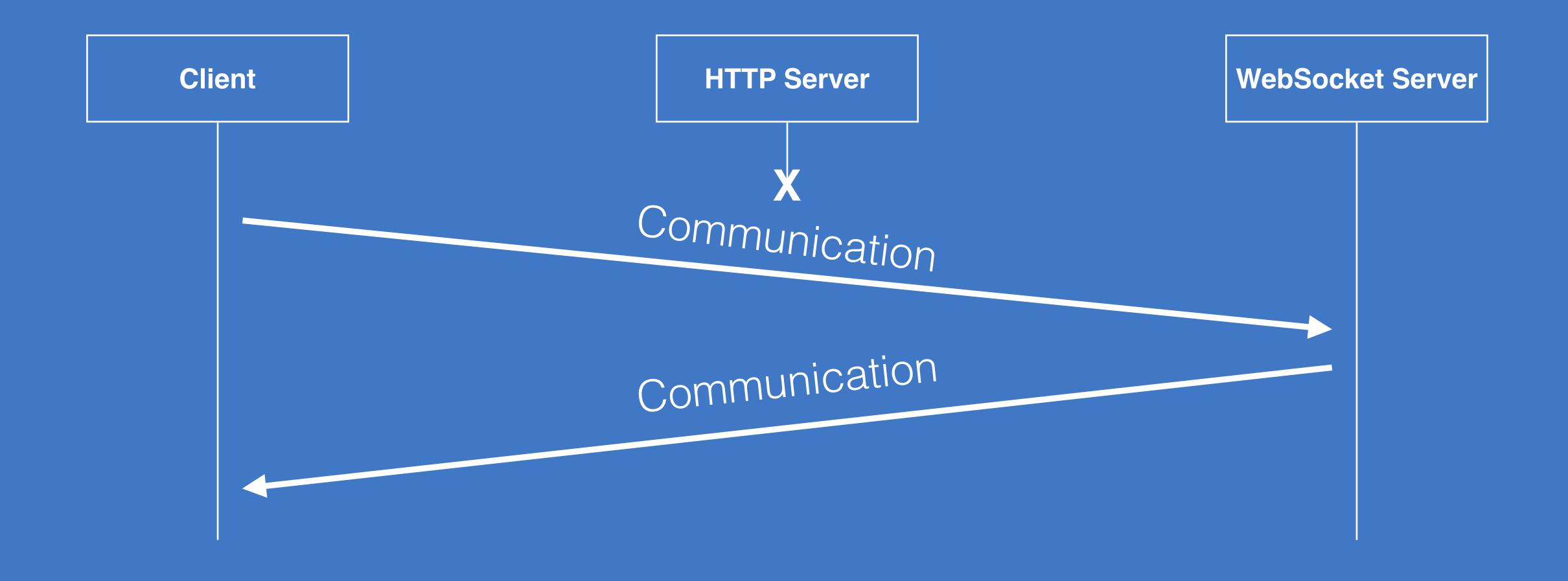
# TCP based Full Duplex Connection

## Each server <u>implement its</u> <u>own protocol</u>





Uses HTTP 1.1 connection upgrade
Allows for standard web security practices



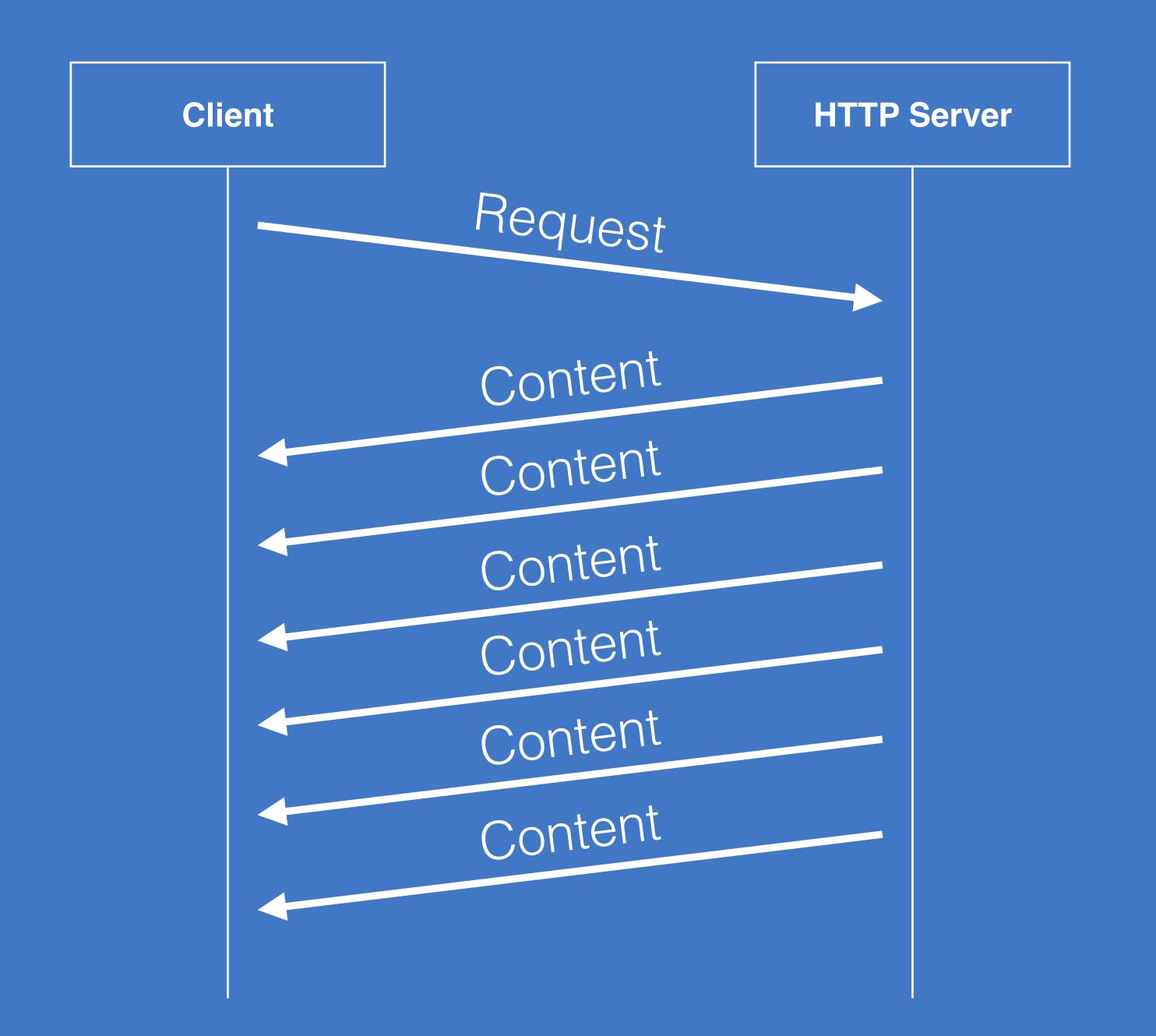
### This has nothing to do with your Web App

### SERVER SENT EVENTS

# Introduced in 2006 WHATWG Web Applications 1.0

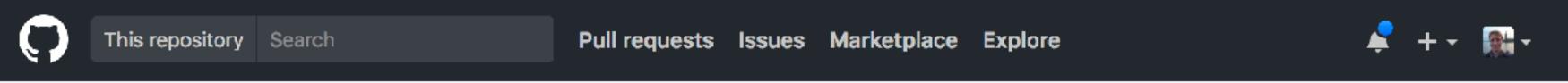
# Only Server to Client communication

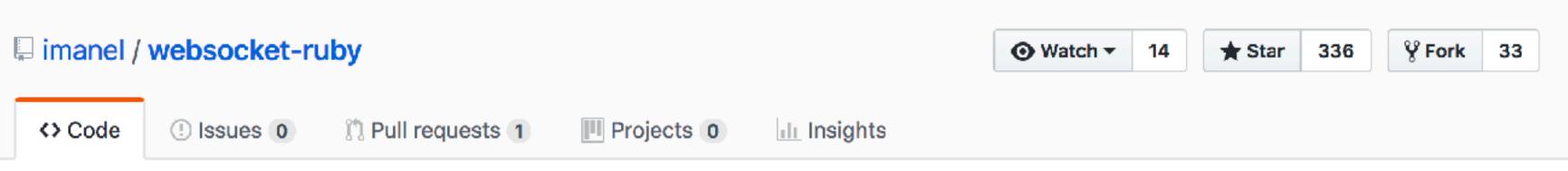
# HTTP based Relies on HTTP streaming



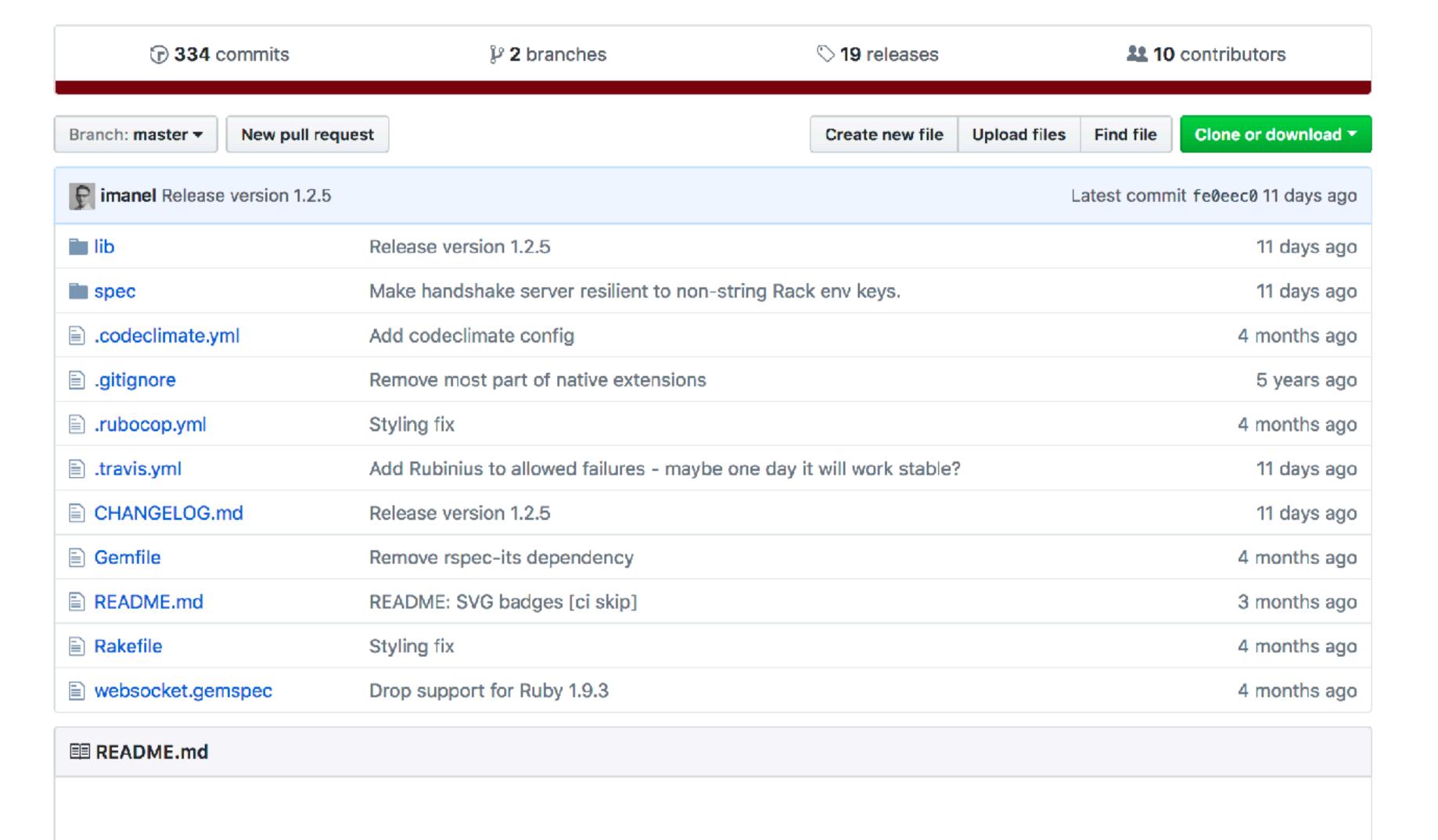
### IMPLEMENTATION

## WebSockets





#### Universal Ruby library to handle WebSocket protocol



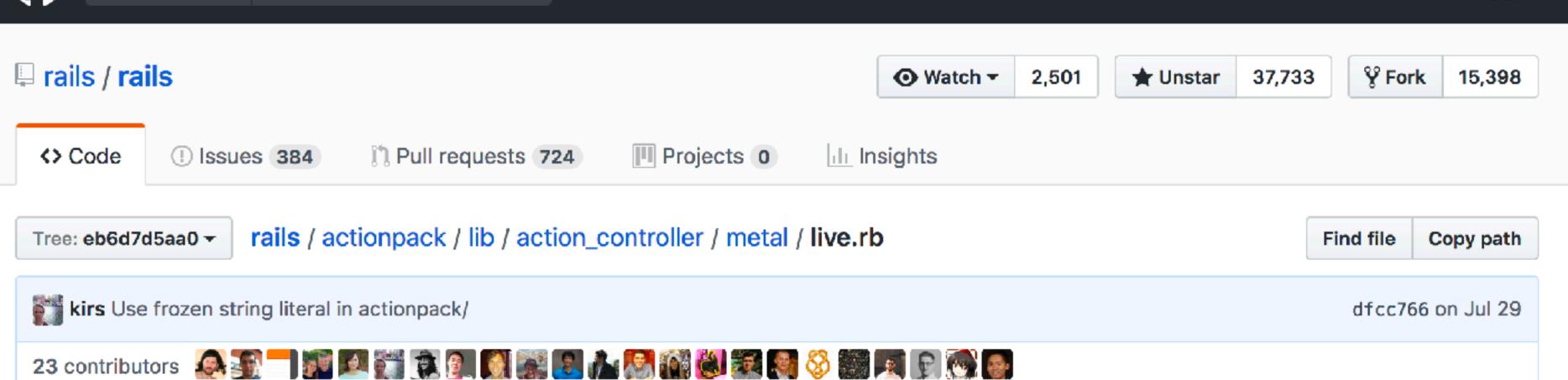
100k lines of code!

- 2 server implementations!
  - 1 client implementation!

## 







```
313 lines (273 sloc) 9.27 KB
                                                                                                                 History
                                                                                                  Raw
                                                                                                         Blame
      # frozen_string_literal: true
       require "action_dispatch/http/response"
       require "delegate"
       require "active_support/json"
       module ActionController
         # Mix this module into your controller, and all actions in that controller
        # will be able to stream data to the client as it's written.
  10
             class MyController < ActionController::Base</pre>
  11
               include ActionController::Live
  12
  13
               def stream
                 response.headers['Content-Type'] = 'text/event-stream'
  15
                 100.times {
  16
                   response.stream.write "hello world\n"
  17
                   sleep 1
  20
               ensure
                 response.stream.close
  21
```

# 100 lines of code! (with documentation)

## 

### WebSockets

### Server Sent Events

Number of parallel
connections from Browser

1024

Non-Standard / Complicated

6

Load Balancing and Proxing

Yes (90%)

No (84% - not on IE and Edge)

Standard / Easy

Supported on all browsers

Dropped Client Detection Yes

No

Reconnection Handeling

No

Yes

## MHEN TO USE IT

#### WebSockets

#### Server Sent Events

Browser based <u>Games</u>

Text Chat

Voice Chat

Push Notifications

Video Chat

<u>Feeds</u>

### WebSockets

### Server Sent Events

Custom protocol required

Standard protocols apply

Simultaneous sending and receiving

Only receiving