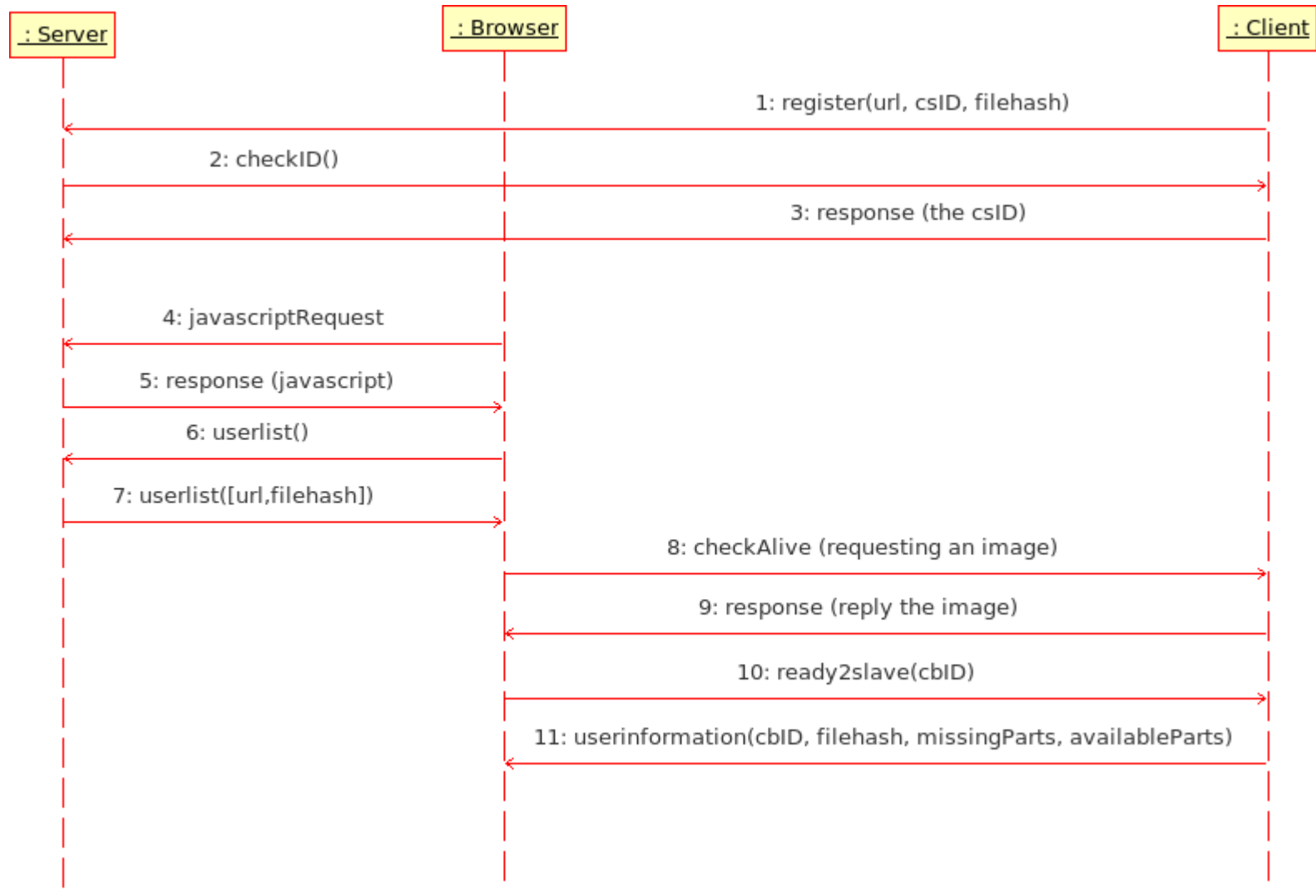


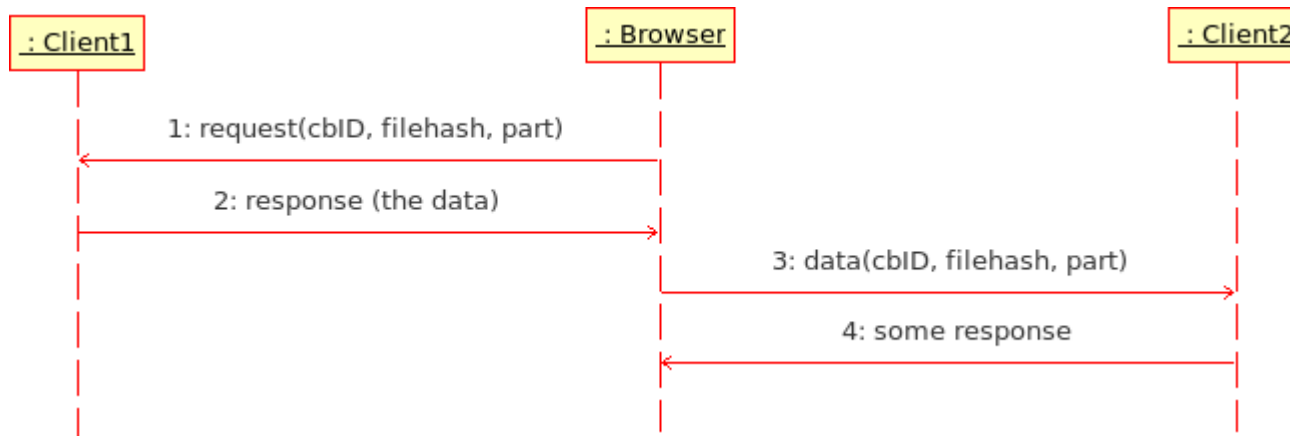
# Browser Share

- How the protocol works
- What techniques are used
- Demonstration

# Protocol Registration



# Protocol Data Transfer



# Methodology

## Dynamic Script Includes

- JavaScript creates a new `<script>`
- `<script>` `src` points to recipient
- Filename defines type of request
- Parameters are passed as GET

# Problem

## Dynamic Script Includes

- Long timeout
- JavaScript is single threaded
- → Stops the execution until timeout occurs

# Solution

## Dynamic Image Includes

- JavaScript creates a new `<img>`
- `<img>` `src` points to recipient
- `onload` the desired JavaScript is executed
- JavaScript keeps executing until `onload` occurs

# Methodology

## Dynamic Forms in IFrames

- Huge amounts of data per POST
- JavaScript creates `<form>` in an `<iframe>`
- Automated submit of forms leads to a reload of the whole page, because it is triggered in the context of the main frame
- Target of `<form>` = name of `<iframe>` causes the response to appear in the `<iframe>`

# Methodology

## HTTPS

- Encrypted communication between browser and client via HTTPS
- Problems:
  - Static certificate
  - Current browser restrict encrypted communication with self-signed certificates
- TODO:
  - Implement application layer encryption



# Demonstration

**Thanks for your attention**