mozilla

WebRTC

The present & future of video conferencing

Open Source Budapest, 2016.02.09.
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About me

Front-end Developer DoclerHolding

Volunteer, Mozilla Tech Speaker

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DH mozilla

WebRTC

2011 Google bemutatta
Valós ideju kommunikacio a böngeszoben Amely lehetővé teszi szamunkra a videocsetelést, fájl megosztását

WebRTC basis

- **Video, Audio, File sharing**
- **Open Source project**
- rich, high-quality RTC
- P2P
- browser, mobile platforms, and IoT devices
- † Plugin, Flash
- UDP
- Secure (DTLS)

WebRTC demo

AMERICA
RISING
PAC.org
C-SPAN

Who uses WebRTC

+10M Active users

- Facebook
- WhatsApp
- Hangout (P2P)

- Firefox Hello
- Appear.in
- Talky.io

Desktop browser support

Mobile browser support

Mac OSX - IOS Safari

http://openwebrtc.org

Build native WebRTC apps that communicate with browsers that supports the WebRTC standard, such as Chrome, Firefox and Bowser.

Rumours only, quiet
getUseMedia early 2016

WebRTC code for developers

…but before

WebRTC API

getUserMedia, which allows a web browser to access the camera and microphone and to capture media

RTCPeerConnection, which sets up audio/video calls

RTCDataChannel, which allow browsers to share data via peer-to-peer

Session Description Protocol

- Dating back to 90's
- String-based business card
- Audio and video codecs
- Network lookup
- Computer data weight
- Easy transportation

```
<key>=<value>\n
```

WebRTC connection

Gabriel

?

Peter

Login to signaling

Gabriel

Peter

WHAT IS ICE?

Interactive Connectivity Establishment

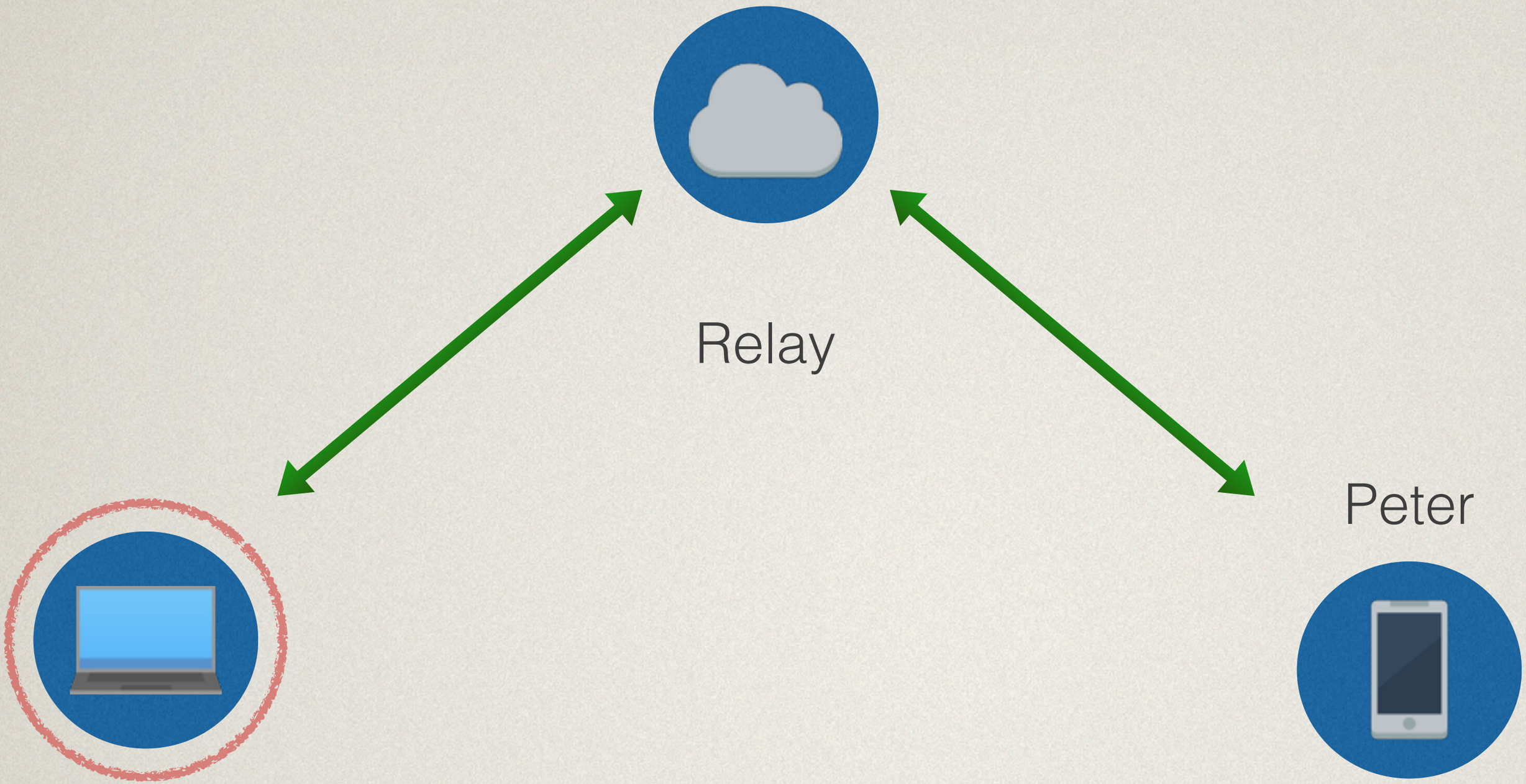
- Part of RTCPeerConnection
- NAT Traversal
- STUN - Session Traversal Utilities for Nat
- TURN - Traversal Using Relays around NAT

More about TURN

- used when UDP, TCP fails
- most of the time, your users will be fine without TURN
- expensive
- **open source** implementation

https://code.google.com/p/rfc5766-turn-server/

TURN



Gabriel has strict firewall

Let’s code!

WEBTORRENT

Streaming torrent client for node & the browser

https://webtorrent.io/
https://github.com/feross/webtorrent

http://google.com/starwars

Polyfill Adapter.js

AdapterJS

https://github.com/Temasys/AdapterJS

WebVR & WebRTC

Connect input devices from your desktop to your mobile phone with WebRTC.

https://proxy-controls.donmccurdy.com/demo

WebRTC Multipoint control unit

https://jitsi.org/Main/Download
https://janus.conf.meetecho.com/
http://lynckia.com/

Alliance for Open Media

Focusing on developing next generation media formats, codecs and technologies in the public interest.

- Enough, lets go to standard
- Open
- Works for the web
- Fits to any modem, device and bandwidth
- Capable of streaming high quality real-time video

Amazon | Netflix | Microsoft | Intel | Cisco (Thor) | Mozilla (Daala) | Google (VP9)

http://aomedia.org/

Object RTC

2016 -

hookflash

Is WebRTC ready yet?

http://iswebrtcreadyyet.com/
http://www.webrtc.org/
https://webrtcweekly.com

Thank you.

Questions?

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