

# UPDATES FROM THE SECOND SCREEN PRESENTATION WG



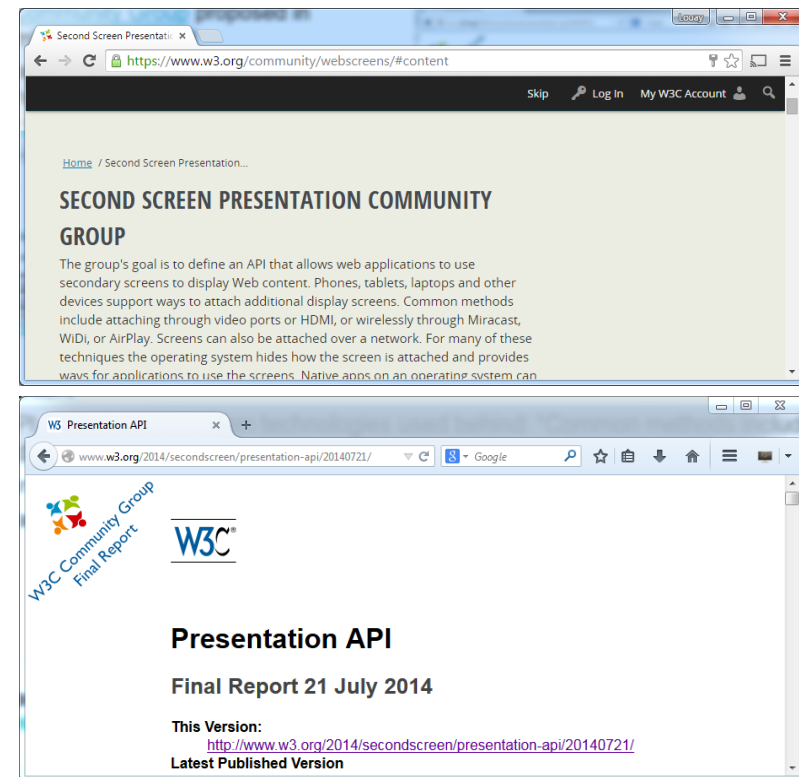
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W3C Web & TV TPAC 2015 | Sapporo - Japan



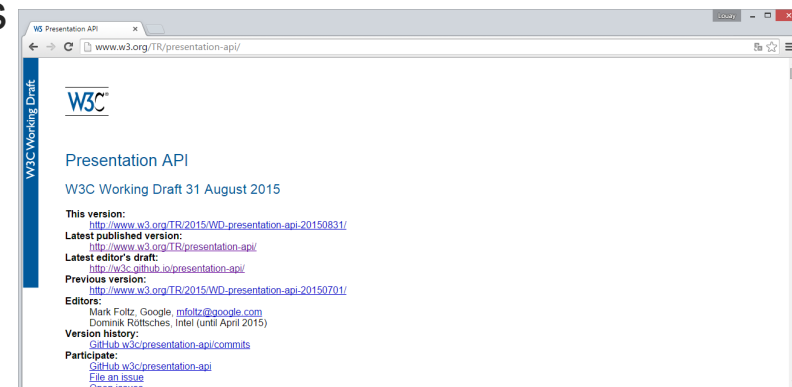
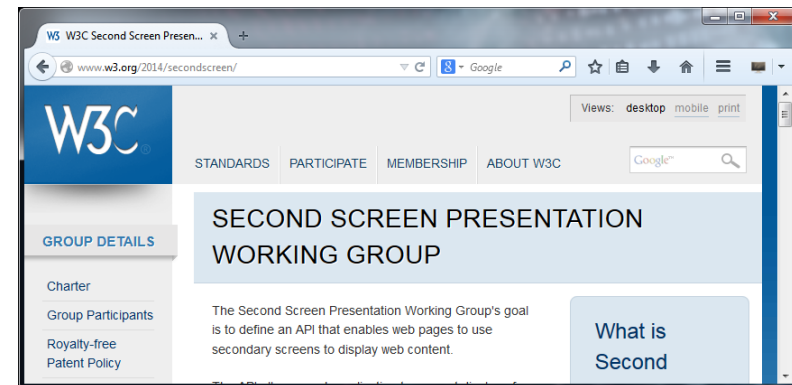
## W3C SECOND SCREEN PRESENTATION CG

- [W3C Community Group](#) proposed in September 2013 by Intel
- Key partners: Intel, Google, Mozilla, Fraunhofer FOKUS, Netflix, LGE, etc.
- Goal: “define an API that allows web applications to use secondary screens to display Web content”
- [Final Report](#) of the CG published in July 2014.



## W3C SECOND SCREEN PRESENTATION WG

- The work of the Second Screen Presentation API is continued in a Working Group
- The [Working Group](#) was created in October 2014 → End date: 31 October 2016
- The WG took the final report of the CG as initial working draft for the Presentation API
- Latest Working Draft 13 October 2015: <http://www.w3.org/TR/presentation-api/>

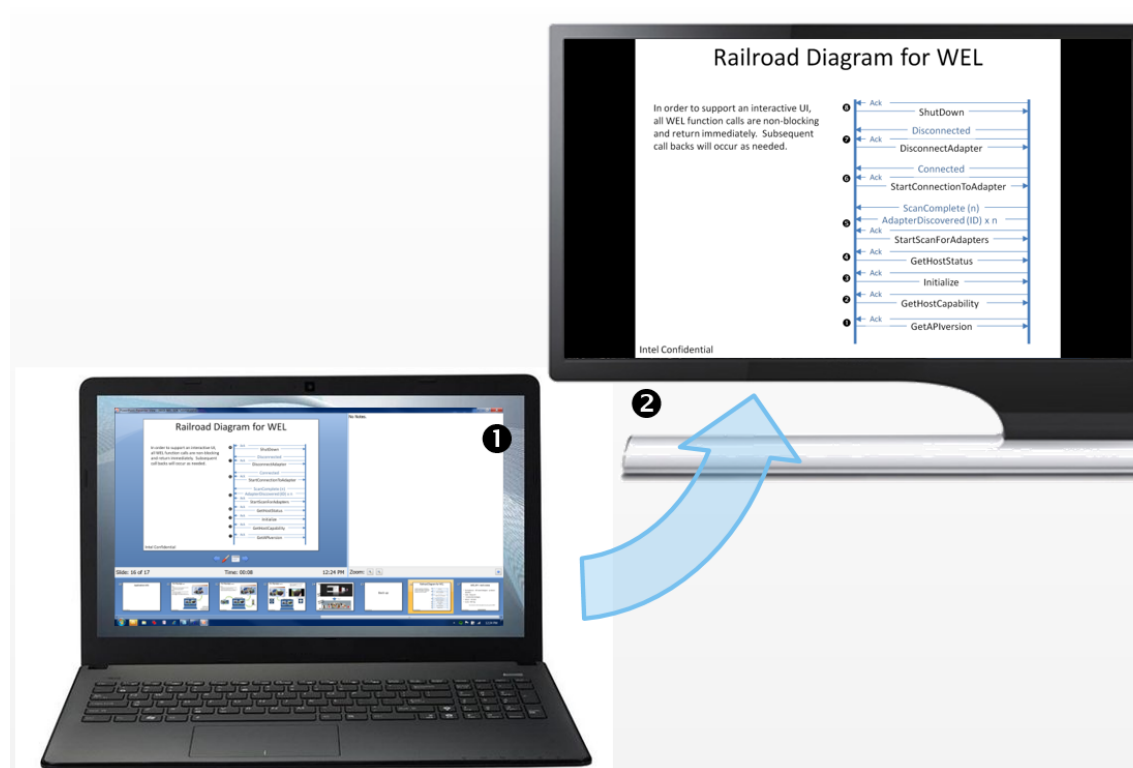


## EXISTING TECHNOLOGIES

- Network Service Discovery
  - SSDP/UPnP, mDNS/DNS-SD, DIAL
- Alternative Sinks for Video Elements
  - Apple's Airplay support for media elements
  - Microsoft's PlayTo extensions for the video element
- Chromecast
  - Google Cast: Supports Android, iOS and Chrome browser
- Apple TV
  - Airplay: Screen Mirroring and Media Streaming
- Miracast/WiDi
  - Native support in Android
- Firefox for Android
  - Cast Video to TV (Roku and Chromecast)

# Use Cases

# PRESENTATION



# GAMING



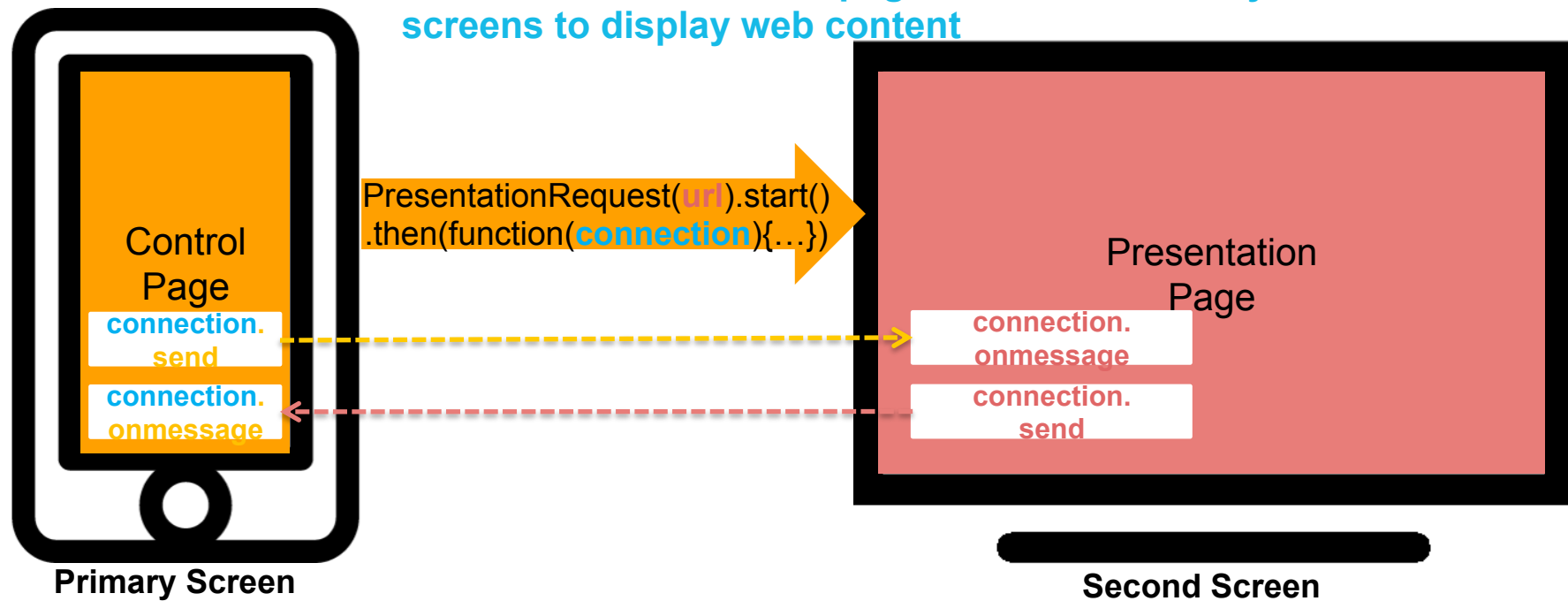
## MEDIA “FLINGING”





# W3C SECOND SCREEN PRESENTATION API

Goal is to define an API that enables web pages to use secondary screens to display web content



# W3C PRESENTATION API

## Scope

- Define an API that allows a web application to:
  - ... request display of web content on a connected display
  - ... communicate with and control the web content
  - ... identify whether at least one secondary screen is available for display
- The web content may comprise HTML documents, web media types such as images, audio, video, or application-specific media
- The specification includes security and privacy considerations

# W3C PRESENTATION API

## Out of Scope

- The specification abstracts away the means of connecting and different connection technologies. The following are out of scope:
  - Lower level APIs that expose features of different connection technologies
  - How second screens are connected to the primary device (e.g. HDMI, WiDi, AirPlay, etc.)
  - How the User Agent prepares and sends the screen contents to the second screen

# W3C PRESENTATION API

## Summary of Main Features

- Monitoring availability of presentation displays
- Launching presentations
- Joining/Reconnecting to running presentations
- Communication between controlling and presentation pages
- Signaling:
  - Availability Change
  - Connection State Change

## WORKING GROUP DISCUSSIONS

- How to handle multiple devices controlling one session
- How to present audio/video content?
- Can a page turn itself into a presentation?
- Can a page add cloud-based screens to the UA list?
- Interoperability of Presentation API implementations
- Compatibility with HbbTV (2.0)
- Secure local App2App Communication (→ Breakout Session “Secure communication with local network devices” proposed by Mark Watson)

## WHAT COULD COME NEXT?

- Extension to non-screen devices (Web of Things → Thing API)
- Synchronization across devices (Multi-Device Timing CG)
- Mechanism to author multi-device apps (CSS? Web components?)
- How to handle more than 2 screens at once

# F2F Meetings

## SECOND SCREEN WG F2F MEETING IN BERLIN – MAY 2015

### 13:30 - 14:30

- **Presentation API – Intro and Recent Improvements**
  - [François Daoust](#) – Web and TV specialist at W3C
- **Presentation API in Chromium**
  - [Mark Foltz](#) – Google, Senior Staff Software Engineer
- **Presentation API / DIAL integration**
  - [Mark Watson](#) – Netflix, Director Streaming Standards
- **Companion Screens and HbbTV 2.0**
  - [Matt Hammond](#) – BBC, Senior R&D Engineer
- **14:30 - 15:00**
  - Coffee Break, Demos & Exhibition

### 15:00 - 16:00

- **Presentation API on Firefox OS**
  - [Shih-Chiang Chien](#) – Mozilla Foundation, Senior Software Engineer
- **Presentation API on Smart Watches**
  - [Soonbo Han](#) – LG Electronics, Senior Research Engineer
- **Multiscreen on Cloud Browsers**
  - [Oliver Friedrich](#) – Deutsche Telekom, Senior Expert New Media
- **Digital Signage Provides Information of Games and Disasters**
  - [Masayuki Ihara](#) – NTT Japan, Senior Research Engineer
- **Extending Video for Multiscreen**
  - [Jean-Claude Dufourd](#) – Télécom ParisTech, Research Director



## SECOND SCREEN WG F2F MEETING @TPAC 2015

- Thursday/Friday 29/30 Oct 2015, 9:00-18:00
- Meeting room: Room 108, 1F
- Agenda: [https://www.w3.org/wiki/Second\\_Screen/Meetings/Oct\\_2015\\_F2F](https://www.w3.org/wiki/Second_Screen/Meetings/Oct_2015_F2F)
- Related GH issues: <https://github.com/w3c/presentation-api/labels/F2F>

# Thank You