

# Use cases and Requirements of Device API and UI/UX

W3C Web on TV Workshop

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## Use cases of Device APIs for Web on TV

### Use cases

- Watching the television channels **on the browser with channel changing**
- **Checking the digital television program guide** on Web services (e.g., ordering the 'watch reservation' on the browser)
- **Running the interactive functions or applications provided in part of digital television service** on the browser
- **Ordering the time-shift or record function on the browser** (when the TV has PVR functions)



## Requirements of Device APIs for Web on TV

Requirements

- **Interface for digital TV features**
  - ∅ Control for digital broadcasting tuner
  - ∅ MPEG2-TS Reader
  
- **Interface for other functions on TV or STB or CE**
  - ∅ Recording, time shifting functions
  - ∅ Connected to DLNA and other home media devices

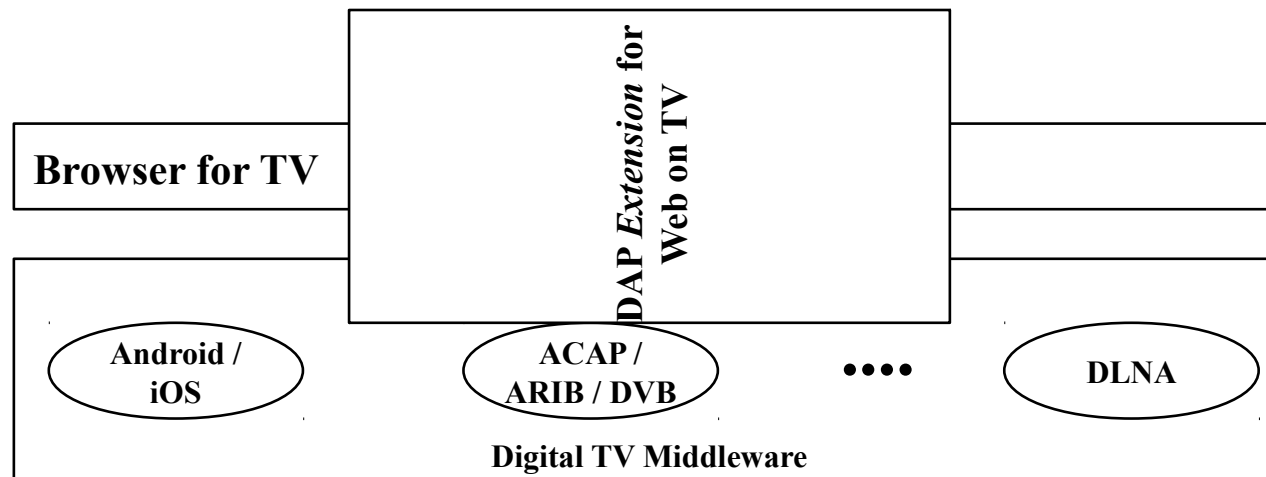


Figure. Example of DAP extension for Web on TV

# Current DAP and Device APIs for Web on TV

More Related Specification for Web on TV	
· <b>HTML Media Capture</b> (camera/microphone interactions through HTML forms)	Need to provide interactive TV by camera/microphone
· <b>Media Capture API</b> (programmatic access to camera/microphone)	
· <b>Gallery (stored media interactions)</b>	To provide high-level interface for accessing media gallery located on the device
· <b>Systems info and events</b> (CPU, network, etc.)	To provide Web applications with access to various properties of the system which they are running on
· <b>Policy Framework</b>	To provide access policy
· <b>Application Launcher</b>	Need to control executions of applications
· <b>User Interaction</b>	Related to user interfaces
<b>Informative docs</b>	
APIs Requirements	
Device API Access Control Use Cases and Requirements	
Privacy Requirements	

Related Specification for Web on TV	
· <b>Contacts</b> (reading from addressbook)	Reading/Writing addressbook activities are not regarded as the main activities of TV
· <b>Contacts Writer</b> (writing to addressbook)	
· <b>Calendar</b>	
· <b>Messaging (SMS, MMS, emails)</b>	Input interfaces for TV are not suitable for messaging
· <b>Communication Log</b>	Same to Messaging
· <b>Device Interface</b>	About device description
• <b>Device API Features</b>	Defines the feature and capability aspects of the Device API architecture and summarizes the specific features and capabilities currently defined.
· <b>Tasks</b>	
• <b>Policy Markup for Device APIs</b>	



Use cases

- Watching EPG(or playlists) with the **Large size screen** from a **distance** (e.g., Grid vs. Card-style playlist)
- Channel changing and selecting menu with **simple steps**
- **Surfing the web and reading headlines of articles** on the browser

**Requirements**

- **Markup language for Web on TV**
  - ∅ HTML5 / CE-HTML
- **Design principles for TV Applications**
  - ∅ Content-oriented design
  - ∅ Resolution guide
  - ∅ Limited text length due to legibility
- ü To provide the best UI, the browser needs to know what kind of I/O device is being connected *and be able to send requests to relevant server based on the information.*



Any Question?

**Thank you!**