Media Presentation Extensions

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Motivation

- The current workflow for media content in the broadcasting industry requires broadcasters to attach web apps to the media content, not media content to the web app as is common among web developers.
- While users watch media content with web apps attached, the presentation of media content should remain on the screen without dropping a frame when a user or a broadcaster changes the front-most web app.
- The current W3C web platform standards, including HTML5, don't have a simple mechanism to satisfy this use case. So I would like to propose developing a new mechanism to enable this.
- Note that we can generalize this use case by changing the actor, here a broadcaster, into a media content service provider. The new mechanism would be beneficial to any media content service provider who manages their web apps in this media-content-centric way.

Agenda

- Use Cases
- Solution Ideas
- Potential Discussion Spaces
- Possible Contributors and Liaisons
- Next Steps and Action Items

Use Cases

- UC-1: Enabling the continuation of such audio-visual presentation while switching the front-most HTML5 web app that existing DTV standards have already implemented through extending HTML4.01 or XHTML2.0/2.1 with regional APIs.
- UC-2: Enabling the continuation of video and audio streams while switching web apps only if some well-defined conditions are satisfied such as media tags having the same URL as their media source in both web apps.

Solution Ideas

- SI-1: Layered Tab with Alpha Channel
  - All major web browsers already have a tab feature: they can run multiple browsing contexts with window objects simultaneously. We can create a new mechanism that satisfies the use cases by adding two new features to the tab. One is a tab containing an alpha channel that displays other tabs behind it. The other is a function and a set of rules that bind tabs to each other and set how they communicate. This function and set of rules should be designed with security getting careful consideration.
- SI-2: A Device API
  - Defining a new interface for a navigator object. App developers can set information through the interface to tell a browser which media tag should continue playing content. The browser may notify lower layer components of information to continuously play the content, in which case, most of the work will be done outside the browser.
- SI-3: New Attributes for Video and Audio Tags
  - A variant of SI-2. Adding new attributes to video and audio tags to notify a browser which media tag should continue playing the content.

Potential Discussion Spaces

- Web and Broadcasting BG
  → Business use cases
- TF in Web and TV IG
  → Requirements
- HTML WG / DAP WG / WAP WG
  → Specifications
- New WG
  → Specifications

Potential Contributors and Liaisons

- Some companies need IPR clarification before joining this type of activity. I would like to find out who is interested in this activity before IPR clarification.
- Liaisons
  - Internal
  - External
    - HbbTV?
    - DTS?
    - OIPF?
    - ATSC?
    - ARIB?
    - IPTVF-J?

Next Steps and Action Items

- Write a charter
  - Determine leader(s)
  - Determine editor(s)
  - Determine project management style
  - Determine meeting style and frequency