W3C AND INTERNET TV STANDARDIZATION

Microsoft

Web and TV Workshop

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Internet Television

- Standards and industry specifications which should be supported:
    - MPEG DASH (Dynamic Adaptive Streaming with HTTP)
    - MPEG Common Encryption/Multi-DRM
    - DECE UltraViolet video profiles and Common File Format (CFF) based on ISO Media file format, Common Encryption
    - Authorization standards; e.g. IETF OAuth 2.0

W3C and Internet Television

- Goal: critical mass of high value "TV content" available and playable on all Internet connected devices and Web browsers
- Publishers, device makers, and consumers need interoperability and reach
- Support multiple formats with flexible standards like MPEG DASH and Common Encryption/multi-DRM

Media Stack

DRMs
A, B, C

Container
(ISO Media Common File Format)

Metadata
(EMA)

Encryption
(ISO 23001-7 Common encryption)

Audio
(AAC,
AC-3,
DTS)

Video
(AVC)

Subtitle
(TTML)

Recommendations

- Extensible APIs in HTML5 to support any media format, including:
  - Audio/video/subtitle/etc. encoding
  - Elementary stream encryption
  - Media container
  - DRM system
  - Content identifier and metadata
  - Presentation Manifest
- API set should support emerging standards with broad industry backing.

Next Steps

- Develop key Internet television scenarios in the Interest Group

- Identify the working groups whose Recommendations would enable those scenarios

- Participate in those working groups to develop those recommendations

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Thank you

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