DASH-DRM Reference Application Explained

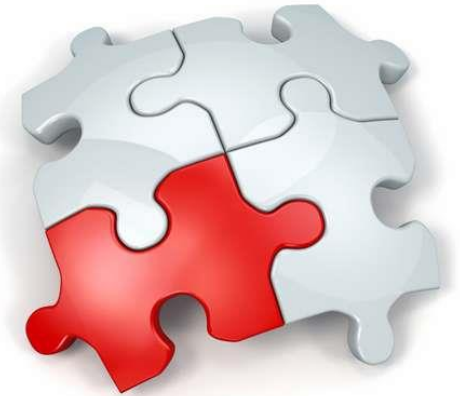# What is the Reference Application („RefApp")?

- HbbTV application and sample content to showcase the HbbTV technology together with MPEG-DASH and DRM

- Includes a complete workflow with free & open source MPEG-DASH content creation tools (with and without DRM)

- Also includes an HbbTV client application with video catalogue of sample content, including the video player made compatible with receivers having support for HbbTV 1.5 and HbbTV 2.0.1 specifications

mpeg-DASH

DIGITAL

RIGHTS

Management

What is the RefApp for?

- The goal was to create a recipe for successfully and rapidly deploying HbbTV services using MPEG-DASH and DRM

- Also to improve HbbTV services interoperability outside the scope of HbbTV's official Test Suite. With the openly available deliverables the TV industry can test and validate their receivers and implementations.

- With the Reference App HbbTV product vendors have an easy way to test their DRM implementation and video playback compatibility with the MPEG-DASH content with and without DRM that is not part of the HbbTV Test Suite
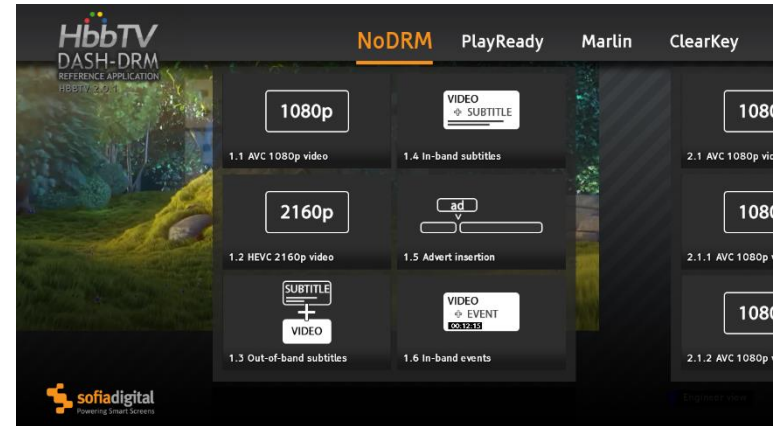
How to use the RefApp?

- The reference application is freely distributed to any party interested in testing the technology by HbbTV association.

- Project deliverables includes documentation covering the creation of valid MPEG-DASH files from users own video content. Furthermore, the reference application is implemented in a way which makes the code easily reusable for anybody to implement their own DASH video streaming application.

How to use the RefApp? (cont'd)

- The reference application presents a catalogue of content items for the TV viewer, which can then be played in clear unencrypted format or with each supported DRM system.

- Application and the content catalogue is designed in a way that it is easily extended with additional content and DRM systems.

How to use the RefApp? (cont'd)

- Further the application is written in such a way it allows an application author to determine the structure and purpose of each functional area allowing them to easily understand the code and to "pick & choose" which parts of the application to copy.

- As well as running on HbbTV 1.5 and 2.0.1 terminals, the reference application can be run on web browsers supporting W3C MSE and EME, and in the future HbbTV versions.

- ## http://refapp.hbbtv.org/production
  - Playready and Marlin DRM streams
    - Also non-DRM streams for reference
  - Subtitle and audio stream* selection via color buttons
  - Live* and VOD DASH profiles
  - Complete tool chain for re-creating all test assets locally available at github project page

Additional features in staging instance

- http://refapp.hbbtv.org/staging
  – Low latency streams with multiple moof/mdat signaling