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#### **HbbTV**

- Hybrid Broadcast Broadband Television
- Pan European Standard
- Specifications will approved by ETSI
- Application may be launched from either
  Broadcast Signalling or XAIT(manual) Signalling
- Data may be comes from either Carousel or Internet
- Covered basic FTA functionality and extensions like 7-days EPG, PVR, DRM, CA etc..

#### **HbbTV**

- Application authoring is easier than MHP,
  MHEG5 or other interactive applications
- Having an essential knowledge in HTML/JS for application development
- CE-HTML is an additional standard used for consumer electronics application
- Browser is a sand-box environment so applications are more safe to run

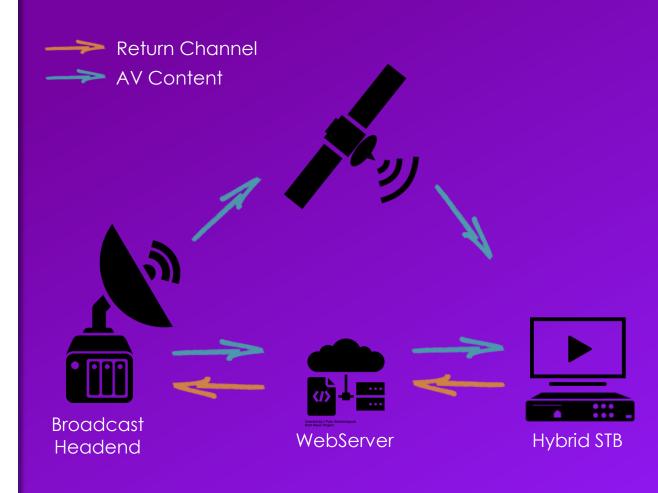
#### **HbbTV**

- DRM playback also supported
- Application can control/access the DVB functionality over OIPF extensions
- Startup applications are known as Red-Button apps
- Digital Text are more interactive than
  Traditional/Standard Teletext application

### Where it is



#### How it works



#### **HbbTV/1.0**

- Playback of broadcast and IP-streamed media
- Download media to persistent local storage
- Access to channel list and now/next EPG data
- Broadcast-related and broadcast-independent applications

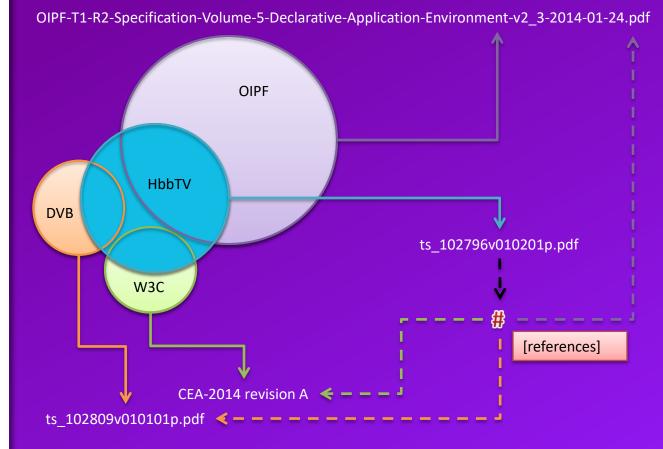
### **HbbTV/1.5**

- EIT-Schedule access
- MPEG DASH
- DRM APIs (No specific DRM solution mandated by HbbTV, but one may be mandated for specific markets by trademark license holders)

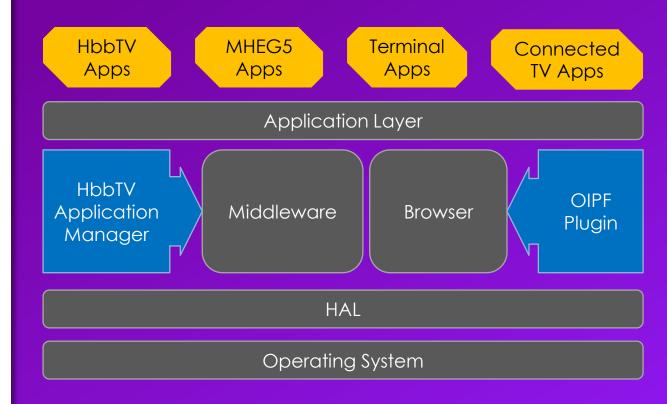
#### **HbbTV/2.0**

- Improved support for HTML5.
- Companion screen app launching and synchronization.
- Push VOD support.
- Improved support for ad insertion.
- Improved synchronization between media and applications.
- Support for HEVC video.
- Improved support for MPEG DASH.

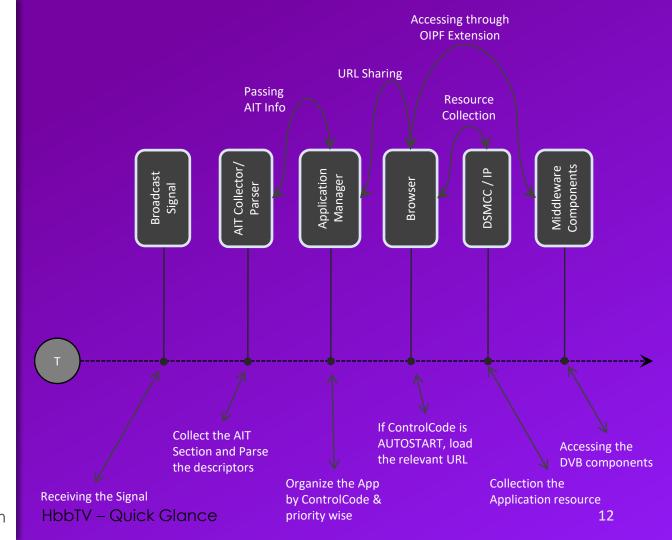
# **Specifications**



# System Overview



# How RedButton starts



## Thank You !!!

Please write your suggestions or queries to ssundaramp@outlook.com

