Deutsche TV-Plattform
WG Smart Media / Task Force ADB2

Status report for the HbbTV Webinar
„Extending the Reach of HbbTV TA to Set-top Box Markets”
Oct. 19th 2021
Deutsche TV-Plattform is an association of over 50 members, including private and public broadcasters, streaming providers, equipment manufacturers, Internet companies, infrastructure operators, service and technology providers, research institutes and universities, federal and state authorities and other companies, associations and institutions involved in digital media. Since its foundation in 1990, the goal of the registered association has been to support the introduction of digital technologies based on open standards.

https://tv-plattform.de/en/
The working group Smart Media of Deutsche TV-Plattform has been promoting the development of smart TV and smart applications in the German market for many years. It deals with addressable and personal TV, HbbTV, multiscreen scenarios, OTT, data protection and security as well as marketing potential. As a guideline for the media industry, a task force is currently working on conventions for control data and programme-accompanying information - so-called metadata. The Task Force Glossary Addressable TV (ATV) is also working on a comprehensive classification of the term.
• Review of the required technical set up and parameters in the context of using ADB2 and ADB2 combined with HbbTV-TA on the basis of agreed use cases

• Definition of technical „Minimum Requirements“ for a market launch of ADB2/TA

• Both aspects to be covered by a document („Whitepaper“ or “Minimum Requirements“) which will be published by Deutsche TV-Plattform

• Provision of test material and test set ups specifically covering the use cases

• Possibly doing public showcases
Meetings
- via Teams / 90' every second week
- good attendance
- good mix of broadcasters, manufacturers and technology providers
- chairs: Frank Heineberg (RTL) / Klaus Merkel (rbb/ARD)

Time schedule
- Publication of the „Whitepaper“/“Minimum Requirements“ in Q1/2022
- Provision of tests in Q1-2/2022
- Tests / Showcases: depending on device availability
1. Introduction
2. Service Scenarios for ADB2 usage
   1. Service Scenarios based on standard HbbTV
   2. Service Scenarios based on HbbTV-TA extensions
3. Scenarios for the set up of Distribution systems
4. Scenarios for the set up of end user devices
5. Optional elements in relevant HbbTV specifications
6. Minimum Requirements for HbbTV Terminals
7. Test Material
8. Abbreviations
9. References
### Snippets from the current work

<table>
<thead>
<tr>
<th>id</th>
<th>wm_message</th>
<th>vid. wm</th>
<th>aud. wm</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>04</td>
<td>vp1_msg</td>
<td>✔️</td>
<td>✔️</td>
<td>contains the server code which is static and identifies the service. The codes are registered via RadioDNS Ltd. The terminal uses this code to make a DNS request for the XML-AIT domain.</td>
</tr>
<tr>
<td></td>
<td>server_field</td>
<td></td>
<td></td>
<td>25 bit counter which is incremented for every VP1 message (i.e. every 1.5 secs). Provides the watermark timeline in combination with the Time Anchor delivered by the AIT.</td>
</tr>
<tr>
<td></td>
<td>interval_field</td>
<td></td>
<td></td>
<td>1 bit flag toggling to trigger AIT updates and allowing the app to retrieve real time data from a web server which can be fed into HbbTV applications.</td>
</tr>
<tr>
<td></td>
<td>query_flag</td>
<td></td>
<td></td>
<td>equivalent to DSM-CC stream events; allows to transmit 256 bytes of data to the HbbTV application via video watermarks.</td>
</tr>
<tr>
<td>05</td>
<td>dynamic_event_msg</td>
<td>✔️</td>
<td></td>
<td>time offset of the video carrying the current VP1 message relative to the first frame in its VP1 Message Group, in units of 1/30 of a second. Required to produce the timeline in a quick way (e.g. when using trick play). Else not required for frame accuracy.</td>
</tr>
<tr>
<td>07</td>
<td>extended_vp1_msg</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.3. Soundbar inserted between HDMI device and TV

In this case, the HDMI device is connected directly to the soundbar which delivers the video [also the audio?] to the TV set.

<table>
<thead>
<tr>
<th>Issue description</th>
<th>% HHs</th>
<th>Solution approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>sound system connected to STB only, TV always muted</td>
<td>?</td>
<td>HbbTV apps can be launched but not properly used, as sound of AV content played by HbbTV will not be audible [any alternatives?] HbbTV apps can detect this state and avoid to draw the “red button”.</td>
</tr>
</tbody>
</table>
Thank you for your attention!

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Klaus Merkel (rbb/ARD)  <klaus.merkel@rbb-online.de>