

DVB and HbbTV Release New DASH Validation Tool to Simplify Content Conformance

GENEVA, **Switzerland** — **Nov. 12**, **2018** — <u>DVB</u>, an industry consortium that develops open interoperable technical specifications for the delivery of digital media and broadcast services, today announced that it has collaborated with the HbbTV Association to create a DASH validation tool for application developers and content providers. The newly released tool conducts checks of ISO/IEC 23009-1 MPEG-DASH media presentation descriptions (MPDs) and segments to ensure conformance with DASH-related specifications from DVB and HbbTV.

"DVB and HbbTV have a close relationship and common membership, making this the perfect partnership," said Peter MacAvock, chair of DVB. "Content delivery is becoming increasingly complex. Working together, we are bringing simplicity to content conformance for DASH-delivered streams."

Extending the existing DASH-IF validator, the new tool includes:

- Comprehensive checks for MPEG-DASH MPD validation (XML, DASH schema, and MPEG-DASH MPD rules), segment validation (ISO BMFF and MPEG-DASH segment rules), cross-representation validation (MPEG-DASH cross-representation rules), and live MPD segment access validation.
- Compliance with a wide range of specifications.
- Support for DVB-DASH Profile v1.1.1 and HbbTV 1.5 extensions.

After performing conformance checks, the new tool generates reports for users to analyse. The reports are colour-coded, making it easy to see important information, warnings, and error messages. Additionally, the tool complements the HbbTV Association DRM Reference Application and Test Suite, providing device manufacturers with examples of working applications and content with DRM.

"We are excited about the release of this DASH validation tool, which will help application developers and content providers verify that their services are compliant with the HbbTV/DVB

DASH profiles, enabling them to offer compelling hybrid services that enhance the viewer experience," said Vincent Grivet, chair of the HbbTV Association.

DVB-DASH defines the delivery of live and on-demand TV content over the open internet via HTTP adaptive streaming. By defining additional constraints and referencing a selection of video and audio codecs from the DVB toolbox as being technically appropriate for use with MPEG-DASH, DVB-DASH facilitates implementation of the MPEG-DASH specification. DVB-DASH is referenced in the HbbTV specifications, which means that many devices on the market currently support this profile. Content providers across Europe have deployed services using DVB-DASH.

The validator source code is now available for free under an open source license and can be found by visiting https://github.com/Dash-Industry-Forum/Conformance-Software.

More information on support for HbbTV application developers can be found at https://www.hbbtv.org/resource-library/developer-support/.

More information about DVB is available at www.dvb.org.

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About the HbbTV Association

Hybrid broadcast broadband TV (or "HbbTV") is a global initiative aimed at harmonising the broadcast and broadband delivery of entertainment services to consumers through connected TVs, set-top boxes and multiscreen devices. The HbbTV specification is developed by industry leaders to improve the video user experience for consumers by enabling innovative, interactive services over networks. The specification uses elements of existing specifications from other standards including OIPF, CEA, DVB, MPEG-DASH and W3C. With the incorporation of activities from the Open IPTV Forum (OIPF) in 2014 and Smart TV Alliance in 2016, HbbTV is able to address service providers and technology suppliers for IPTV services as well as the combined scope of broadcast and over-the-top (OTT) services. More information: https://www.hbbtv.org.

This year, the 7th HbbTV Symposium and Awards will take place on November 14-15 in Berlin. Registration is possible here. The Symposium is in collaboration with Deutsche TV-Plattform and the overall theme is "Growing Value Through HbbTV." More information: https://www.hbbtv.org/news-events/hbbtv-symposium-and-awards/.

About DVB (www.dvb.org)

DVB is an industry-led consortium of broadcasters, manufacturers, network operators, software developers, regulators, and others from around the world committed to designing open interoperable technical specifications for the global delivery of digital media and broadcast services. DVB specifications cover all aspects of digital television from transmission through interfacing; conditional access; and

interactivity for digital video, audio, and data. DVB dominates the digital broadcasting environment with thousands of broadcast services around the world using DVB specifications. There are hundreds of manufacturers offering DVB-compliant equipment. To date, there are more than a billion DVB receivers shipped worldwide.

Further information about DVB can be found at www.dvb.org, www.dvbservices.com, and www.dvbworld.org.

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