UPDATE ON HBBTV OPERATOR APPLICATIONS
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HBBTV WEBINAR 23 MARCH 2021 WITH TNO, ZATTOO AND PANASONIC
SMART SOLUTIONS FOR CLIENTS & PARTNERS

DEVELOP FUNDAMENTAL KNOWLEDGE (10%)
Together with universities

KNOWLEDGE APPLICATION (40%)
Contract research for and with clients

KNOWLEDGE TRANSFER (10%)
Knowledge exploitation by spin-offs, licences, in partnership with other companies

KNOWLEDGE DEVELOPMENT (40%)
In public-private partnership with partners from the golden triangle
TNO UNIT ICT - MEDIA NETWORKING: INTERNATIONAL AND INNOVATIVE

We develop new technology in international context together with clients and partners in the telecom and media sector. ..using our leading position in industry fora

https://tnomedialab.github.io/
THE NEW HBBTV OPAPP STANDARD – AN UPDATE

- Intro Standards and HbbTV
- Operator Apps:
  - Standard for a virtual STB integrated in TV sets
  - How it works
  - In the pipeline: OpApps v2
- Consequences for the different stakeholders
- OpApps ecosystem developments

DTVE Industry Survey 2021: “TV as an app has strong appeal”
STANDARDS ESSENTIAL IN THE COMPLEX TV ECOSYSTEM

› Standards are essential to enable multiparty ecosystems such as TV and video
  › Improve scalability and reach of solutions
  › Provide freedom of choice among supporters of the standards

› Standards improve collaboration between competing parties
  › Establish a common ground for technical solutions
  › Help including new technologies in products

› Standards lower cost and complexity
  › Reduce vendor lock-in
  › Enable modular solutions
  › Create economy of scale
OPERATOR APPLICATIONS: ONE OF HBBTV’S INTERACTIVE TV STANDARDS

Topic of today
HbbTV Operator Applications

Takeaway: An OpApp is quite different from a regular HbbTV App!
HBBTV OPERATOR APPLICATIONS: STANDARD FOR SMART TV APP INTEGRATION

- HbbTV OpApp is designed to deliver a **branded** operator experience to the TV set
- Improving User Experience compared to regular apps by **deeper integration**
- Attractive features specified by HbbTV OpApp

**HbbTV Operator App:**
Allowing an operator to control the (part of) the TV UI

*Schematic view:*
*Increasing levels of technology and feature integration*

- Part of branded installation flow
- App-as-a-source
- Dedicated OpApp Home Key
- Prominent position (e.g. launcher bar)
- Available in TV app store
- Pre-installed apps
HOW OPAPPS WORK

› Discovery and installation
   › User turns on new TV automatically finds the OpApp
   › Operator brand is part of TV installation flow

› Easy to access & control the app
   › App-as-a- source (virtual HDMI)
   › Dedicated OpApp Home key can be assigned
   › Other keys available to the app P+/ P-, guide

› Compatible with all TV platforms
   › As a standard it is independent from Smart TV OS: Linux, AndroidTV, Samsung Tizen, ...
   › Operators and TV manufacturers still need a bilateral agreement

Virtual STB functionality for an improved and operator-branded UX
Why not call it HbbTV Operator Tier?

Interesting idea! Maybe for a next release...?
IMPROVED STANDARD BASED ON MARKET DEMAND AND FIELD EXPERIENCES

- Operator apps version 2 is in the pipeline
  - To be published after test assertions are available later this year*

- New features for different use cases in v2:
  - CAM module support: Will allow OpApp distribution via smartcard
  - Parental control functionality: Important feature with broadcast content (DVB-S/-C/-T)
  - IPTV Operator Profile: Easier implementation for IPTV use case

- Further improvements
  - HbbTV has added & improved OpApp tests in the HbbTV Test suite
  - Bugs fixed that were discovered during operational implementation

Status: Stable draft awaiting test assertion process

* Exact timing depends on effort put in by volunteering companies
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<thead>
<tr>
<th>Stakeholders</th>
<th>Views</th>
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<tr>
<td>Consumers</td>
<td>One remote, easy sign-on and access to content. Less hassle with boxes and cables. Lower energy usage, lower ecological footprint.</td>
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<tr>
<td>TV manufacturers</td>
<td>New business models with operators. Joint marketing opportunities. Dealing with many TV operators.</td>
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<tr>
<td>TV operators</td>
<td>Uniform branded experience on all devices. Reduction of capex. New strategic option, fit with smart TV strategy.</td>
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HBBTV OPAPP ECOSYSTEM IS DEVELOPING

Panasonic offers M7 HbbTV OpApp for Diveo and HD Austria
OCTOBER 25, 2019 23:07 EUROPE/LONDON BY BROADBAND TV NEWS CORRESPONDENT

Samsung to add direct HD+ access to TV sets
MARCH 5, 2019 08:00 EUROPE/LONDON BY JÖRN KRIEGER

Vestel integrates HD+ into TV sets via HbbTV OpApp
JULY 23, 2019 09:00 EUROPE/LONDON BY BROADBAND TV NEWS CORRESPONDENT

Digital TV
Panasonic deploys HbbTV OpApp for HD+ access in Germany
Written by Andrew McDonald | 20th March 2019 @ 12:28

Tivù claims world-first with HbbTV Operator App deployment
Joseph O'Halloran | 11 September 2018

Italian free-to-view satellite TV platform provider Tivù, working with OTT platform enabler Vewd, is claiming to have become the world’s first operator to deploy an HbbTV Operator App (OpApp).
HBBTV OPERATORS APPS: THE ONLY OPEN STANDARD FOR SMART TV APPS

HbbTV OpApp:
› Virtual STB: Standard for integration of operator TV service in TV sets
› Offers attractive UX features and benefits for all stakeholders in the TV ecosystem
› OpApp v2 standard in the pipeline

HbbTV Operator Applications: Strategic option for Smart TV app deployments
THANK YOU FOR YOUR ATTENTION

https://www.tno.nl/en/smart-society/

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