



TARA Systems

in cooperation with



# HbbTV Application Discovery over Broadband (ADB) in OTT Networks

September 2018



## ZATTOO



HbbTV has become a standard feature of today's TV and set-top-box devices. At the same time more and more TV channels are provided as OTT services via the Internet. Unfortunately signalisation of HbbTV in the media streams of OTT networks is often not supported. This results in situations where users experience a lack of HbbTV availability.

To overcome this gap, the HbbTV Association specifies the Application Discovery over Broadband (ADB) standard. It defines the infrastructure and mechanisms that are needed for HbbTV terminals to start the correct applications even if the signalisation is not available in the network.

## HbbTV on Android TV

Together with the IRT we have set-up a showcase that provides HbbTV functionality together with the Zattoo OTT service. Our showcase is based on the NVIDIA SHIELD Android TV platform running a customised Live Channels app. This was already presented at Google's Android TV Summit at IBC 2017. The Inaris HbbTV Solution using the Chromium browser and ExoPlayer is integrated in the TV application on top of the TV Input Framework (TIF) and thus independent of the underlying TV middleware.

## Used Technologies:



chromium

## HbbTV Signalling in OTT Networks

In many cases HbbTV signalling cannot be transmitted in the media stream of OTT networks. In our demonstration the Zattoo TV Input Service provides linear TV via OTT without HbbTV. To give users access to HbbTV applications, we are using ADB where the signalling is provided independently of the media transmission. The ADB protocol achieves this by using the infrastructure of the not-for-profit organisation RadioDNS. It allows to resolve the currently played TV service to the corresponding broadcaster which then provides the HbbTV signalling via Internet.

## A Unified HbbTV Experience

The integration of HbbTV on top of TIF and the usage of ADB allows detecting available HbbTV applications, even in the absence of the signalisation and across the broadcast networks. With this integration approach, users have a significant benefit from the unified TV and HbbTV experience across broadcast and OTT networks.

### Inaris HbbTV Solution for Android TV

- Fully compliant with the HbbTV 1.5 standard
- HbbTV 2 Media Synchronisation and Companion Screen available
- Integration on top of TIF or directly with the TV middleware for non-TIF TV applications
- Pre-integrated with the Chromium browser and ExoPlayer

### Inaris HbbTV Solution for Linux & other OS

- Our HbbTV Solution supports also classic TV or STB platforms based on Linux or other operating systems
- Web Browser independent using the Netscape Plugin API or the Chromium plugin

Further information about Inaris HbbTV Solution:

[www.tara-systems.de/hbbtv-solution.html](http://www.tara-systems.de/hbbtv-solution.html)



---

#### Further information and contact:

[www.tara-systems.de](http://www.tara-systems.de)  
[inaris@tara-systems.de](mailto:inaris@tara-systems.de)  
T +49 89 747121-0

TARA Systems GmbH  
Gmunder Str. 53  
81379 Munich  
Germany

