

Accessibility services based on HbbTV - NorDig recommendations

1. Introduction

The purpose of this document is to be a help in planning and developing accessibility services based on HbbTV for NorDig IRDs.

HbbTV gives the possibility to develop and distribute advanced accessibility services cross platforms so the accessibility services will look and function in the same way on any NorDig IRDs supporting HbbTV. This document includes information about recommendations and implementation guidelines concerning accessibility services based on HbbTV, and where to find more knowledge about accessibility services based on HbbTV.

2. Accessibility services based on HbbTV

All NorDig IRDs with HbbTV capability enabling the possibility to handle accessibility services based on HbbTV.

How to access HbbTV accessibility services:

For many users of TV accessibility services it is important to get easy access to the services, therefore it is recommended to have an application-loader that work across the TV channels and can be activated via a simple click on the “red button”.

It is possible for the broadcaster to include an application loader in their broadcast signal that works across their tv channels and can be transmitted cross networks.

For the user it can be easier and more user friendly if an application loader works across all channels, so it is possible to access HbbTV accessibility services in the same way on any channel (across broadcasters).

With the “HbbTV Operator Application” it is possible to make an application loader works across all channels in one or more networks.

See more at the HbbTV organisations website: <https://www.hbbtv.org/news-events/hbbtv-updates-operator-application-specification/>

For information and experience with HbbTV accessibility services “On Air” please see:

“Accessibility services based on HbbTV – presentation with examples” by Klaus Merkel /RBB

https://www.hbbtv.org/wp-content/uploads/2021/09/210921_Accessibility_services_based_on_HbbTV_Klaus_Merkel.pdf

3. Implementation guidelines and recommendations

HbbTV based accessibility services can include all type of accessibility services like:

Audio Description (AD)

Spoken Subtitles (SpS)

Dialogue Enhancement (DE)

Hard of Hearing Subtitles (HH)

Audio Description subtitles (ADS)

But HbbTV enable also the possibility for more advanced services (e.g. change of contrast, colour and size of HH subtitles) and personalization to help users with special needs.

4. Reference and relevant documents

EBU have in November 2021 published document “EBU Guidelines for accessibility services with HbbTV”, a guide to current practice and future possibilities which is highly recommended as a basis and inspiration for planning, development and implementation of accessibility services based on HbbTV.

“EBU Guidelines for accessibility services with HbbTV”

<https://tech.ebu.ch/docs/techreports/tr065.pdf>

The EBU guidelines for delivering accessibility services using HbbTV focus on

- Optional subtitles (closed captions)
- Sign language interpretation (SLI)
- Audio description (AD)
- Clean audio (sound channel with enhanced sound for the components necessary to follow the content)

The report gives background on accessibility features and related user experience and describes implementation options based on the currently available tools of the HbbTV toolbox.

Deciding on the optimum system for delivering subtitles can be relatively complex, and a ‘decision tree’ is suggested in the report that may help.

CONCLUSIONS in the EBU report:

1. HbbTV can provide a means of providing the four basic accessibility services: optional subtitles, signers (SLI), audio descriptions (AD), and Accessible Audio Experiences (AAE). Audio version of subtitles can also be provided.
2. The potential for features for HbbTV services is greater than is practical today with currently available implementations of HbbTV consumer equipment.

The report suggests practical options for using HbbTV currently. These are:

- To follow a decision tree about current circumstances to decide how best to deliver subtitles.
- To provide a second version of the programme via HbbTV which includes a signer as an overlay, to provide SLI.
- To provide an additional audio channel via HbbTV which is a composite of the normal audio and the audio description in dialogue pauses to provide an audio description service.
- To provide an additional audio channel via HbbTV that has been created by the content provider at the playout centre by processing. This can offer an accessible audio experienced version of the audio channel, though this may not be optimum for all users or all types of content.

5. HbbTV 2.0.4 Accessibility Framework

General information about the new HbbTV update ver. 2.0.4 – Accessibility Framework

Please see presentation by Nigel More, HbbTV organisation:

<https://www.hbbtv.org/wp-content/uploads/2021/09/Nigel-Moore-HbbTV-Webinar-Accessibility-2021-09-21.pdf>

For more information about HbbTV please see: <https://www.hbbtv.org/>