Company: Overview

Sofia Digital – Some of the Company Milestones in Digital TV

- **1998** Finnish digital-TV operators started a research project to bring interactive digital TV to Finland.
- **17.5.2000** Company was established as a spin-off from the research project.
- **8/2001** World’s first MHP services started in Finland based on Sofia Digital’s MHP products.
- **1/2002** First set-top box user interface project. Customer Nokia.
- **7/2003** First major MHP product delivery to Italy. Customer Mediaset.
- **11/2004** Merger with the Finnish mobile technology company Outer Rim Ltd.
- **4/2005** First major set-top box testing platform delivery. Customer Italian Ministry of Communications.
- **3/2006** DVB-H mobile TV product portfolio released and presented together with Nokia.
- **12/2006** Selected as a Cable Ready test service custodian in Finland.
- **09/2007** “Best of IBC” Industry Award for Sofia Backstage® Mobile Television product.
- **03/2008** First major mobile TV product delivery to Digita in Finland.
- **11/2008** TV broadcast automation system to SBS Voice.
- **10/2009** Mobile Teletext consumer application in OVI Store.
- **6/2010** Selected as an Antenna Ready test service custodian in Finland.
- **10/2011** First Digital Signage system delivery to Citymarket retail stores in Finland.
- **6/2012** Finland’s first HbbTV services started and powered by Sofia Backstage®.
- **9/2013** First international HbbTV product delivery to Antenna Hungaria.
- **5/2014** STB delivery project to Vodafone Iceland with Middleware localization.
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**HbbTV system high-level diagram of “ecosystem”**

Figure: Sofia Digital HbbTV Platform overview with core Apps
Why HbbTV is needed, isn’t it just one more HTML Browser?

Need for specialized apps for support TV-business purposes

- HbbTV enables to control the TV-signal and Internet content in the same screen
- Same application may control OTT and linear DVB-content
  - The "red button" functionalities are missing in TV-apps or www-browsers

- HbbTV is designed to enrich the "TV experience"
  - Push dynamic content over TV-screen
  - Same content can be viewed in ALL HbbTV devices
  - Seamless integration between Broadcast and Broadband video delivery

- Since 2013 the HbbTV is available for every well-known new Smart TV units in European market!
What HbbTV can enable?

- **Production houses and content owners**
  - Way to make new interactive TV formats
  - On-screen promotions of new productions

- **TV Broadcasters**
  - New revenue models (Internet models adapted to TV environment)
  - Alternative secondary content delivery network (on-demand and linear delivery)
  - Interactive TV-overlays and "Red Button"

- **Network operators**
  - Virtual channels in DVB & OTT
  - Data broadcasting

- **PayTV operators**
  - Promotional content with on-demand purchases
  - Customer self-care (transactions)

**HBBTV NOTE BOARD:**
- Local Smart-tv Ecosystems
- OTT without STB
- No supplier lock-down
- Compatibility with existing Internet infrastructure
- Freedom to select receiver from open market
- Cost savings
HbbTV relation in TV apps

TV SIGNAL + App

Activate Internet/HBB Content

Television (or STB)

"Press Red Button"

PUSH Content

Wall Between Linear TV and IP without HbbTV

TV-compatible HTML

Broadcasting

Broadcasters Internet Content

Streaming and Internet content

3rd Party Internet Content

SMART-TV MENU BUTTON

Unbound TV APPS

HBB Apps

HBB Apps

HBB Apps
HbbTV and Internet

• Linear TV
  (TV receiver with tuner)
  – Teletext
  – Pay-TV
  – Ad breaks
  – Local PVR

• Networked Services
  (Internet devices)
  – MobileTV
  – Participation TV
  – On-demand Videos
  – Cloud PVR

Fight between delivery platforms

Hybrid TV
INTEGRATED SOLUTIONS with HbbTV
one ecosystem
+ Multiscreen option
HbbTV adoption status in 2014

More countries are about to decide...

HbbTV caught interest also outside Europe: Australia; South-East Asia; Africa; America
HbbTV adoption status

HBBTV map in 2011

- **Operation**
- **Announced / Tests**
- **Trial phase**
- **No Information**
- **Other Systems**

More countries are about to decide...

HbbTV caught interest also outside Europe:
Australia; South-East Asia; Africa; America
Common EPG offer access to programs data 2 weeks ahead and 1 week history.

Thru the EPG is possible to see all the channels in same app:
- Video trailers
- Set Favorite Programs and
- Access to Cach-UP TV!
HbbTV App Screenshots

HbbTV “TV Guide application” From Finland adapted to Malaysian TV channels in less than one week!
List of available past episodes from TV-channel catch-up service
HbbTV stats in Finland

Currently in Finland:
- ~2,2 M TV-households in total
- 50% reach with DVB-T network, with over 90% coverage
- HbbTV is not carried in most of DVB-C cable networks
- ~100,000 receivers with HbbTV capability
  - Est. more than 200,000 by end of 2014
- During 2014 most of the smart-tv products have HbbTV 1.5 enabled (est.)
- HbbTV services not yet marketed to the end-customers

In Nordic region more than 2M TV receivers are sold annually, more than 50% of those are Internet enabled in 2014

HbbTV Figures provided by Digita
HbbTV stats in Spain

- National reach of 80% with DVB-T network
- By end of 2013, over 500,000 HbbTV devices
- Now in 2014 June more than 700,000 households connect to HbbTV services
- During 2013 the figures have been multiplied with 10
- 1.6 Milj receivers with HbbTV capability
- In 2013 almost 90% of smart-tv products have HbbTV, in 2014 close to 100%
- National extra:
  - HbbTV DRM-requirements (Playready+Marlin)
  - HbbTV Conformance testing with Receiver Certificate
Why HbbTV

HbbTV stats in Germany and Hungary

TV Shopping channel QVC

The following figures represent the growth from 2012 to 2013:

- number of inserted Red Button: +155%
- number of activated Red Button: +73%
- number of videos watched: +39%

In Hungary:
The Red-Button services expanded to the public broadcaster MTVA channel at 12th May when it multiplies the usage of HbbTV.

Compared to HbbTV use from the Operator’s own infochannel
HbbTV Service types (Listed by HbbTV Forum Nederland)

- **Social and accessibility services**
  - Amber Alert, spoken subtitles, speech in other languages, synchronous, computer-generated sign language

- **Traditional teletext-like information**
  - with a much more attractive user interface,
  - "super text" with news, weather, traffic, sports scores, stock quotes, exchange rates, etc.
  - A digital newsstand for services by the (local, national) government

- **Advanced EPGs (Electronic Program Guides)**
  - Rich EPG over OTT

- **Enhanced TV**
  - additional information on TV programs
  - statistics in sports programs, extras with biographies, background, etc.

- **Voting and Polling**
  - Participate in TV programs, vote for candidates in talent shows, join programs like the National IQ test etc.

- **Additional video content**
  - "catch up TV" as well as new programs (previews)
  - restart to "rewind" a broadcast from the beginning to see it if you turn in too late ("Salto" in France)
  - Direct access to additional TV channels that do not have broadcast via live streaming
  - there are 15,000 worldwide channels)

- **Games via television (community, simple classical games, Content for kids)**
- **Home shopping (shopping channel add-on)**
- **Courses and education**

Why HbbTV

HbbTV offers ultimate usability

◆ UX matters: How hard could it?

TV Sets:

PUSH A BUTTON

2nd Screens:
and TV App stores

Access
App store

Create account (optional)

Download & Install

Launch & (optional) Pairing
HbbTV service discovery – TWO OPTIONS

Option A
Launch from TV Channel (Red button)

Option B
Launch HbbTV as TV channel (autostart)
Market Facts and estimations

- Connected TV market share is increasing
- New televisions are actually connected more often
- Smart TV processing power is higher than STB
- Consumers like to use one device – if possible
- All the services can be reach under same User Interface and one remote controller
- HbbTV enables implementing one single application to reach all well-known TV vendors!
- If LINEAR pay-tv operators cannot reach household using smart-TV then customers will be lost to multinational OTT operators
Thank you!

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