Connected TVs Symposium

TNT 2.0

December 5, 2011

Muriel SANGOUARD
With HbbTV 1.1.1: broadcasters have the opportunity to provide a wide range of enhanced services to TV viewers

- Enhanced TV, interactive ads, voting...
- Portal apps: Guide, informations, games, catch-up TV...

On air since Summer 2011

**Broadcasters want to go further**
- Premium contents (VOD, Catch-up TV)
- Pay services: TVOD, SVOD
- Streaming live: video services, live channels, event channels...

**HD Forum led the initiative for the French market**
- To define specifications
- To create a BtoC brand: TNT 2.0

The work started on November 2010
A dedicated working group: Manufacturers, Broadcasters and Industrials
TNT 2.0:
4 main workstreams

**Technical specifications**
Published in July 2011
Input to HbbTV 1.5
Proof of Concept available since October 2011

**TradeMark Licence Agreement**
TML Manufacturers: under discussion
TML Broadcasters: to be initiated
Target: end of year 2011

**Test suites & certification regime**
Test suites overview: under validation
Target: February 2011

**Communication**
Work to be started
Definition of communication messages and tools towards end-consumers and retailers
Target: February 2011
TNT 2.0: a new brand for the French market

- Leverage existing awareness to create a brand that stands for:
  - Simplicity
  - Proximity
  - “internet enabled”

- Create a unique reference to simplify communication for:
  - End-users
  - Retailers
Manufacturers and broadcasters were asked:
- To specify DRM needs
- #DRM(s) and preferences

RFP to DRM & CAS vendors
Final decision by HD Forum board: MS Play Ready and Marlin preselected

Dedicated subgroup:
Manufacturers, Broadcasters, DRM vendors, TDF
- To specify TNT 2.0 specifications over HbbTV 1.1.1
- To prepare an input to HbbTV 1.5

1st official version: beg. July 2011
Approval by HD Forum board: end of July

To validate global workflow
- HbbTV+DASH+ Common Encryption
- With 2 TVs implementing the 2 DRM solutions

Test streams ready since
beg. October 2011

- HbbTV 1.1.1
- Adaptive streaming to address all possible internet connection situation
- Common encryption format to simplify and reduce costs of video workflows
- One DRM mandatory (Intertrust Marlin and MS Playready pre-selected)
TradeMark Licence and certification regime

2 topics by 2 dedicated subgroups
• **TML Agreement**: self certification based on test suites built under HD Forum control
• **Test suites**: HD Forum selected Farncombe & Digital TV Labs as provider and pays part of the costs

3 deliverables: Test suites overview / detailed specifications/tests streams

Communication

**Promotion tools and messages will be defined**
• For end-users
• For retailers

A dedicated subgroup will start its work in the 2 coming weeks

**Target is Spring 2012**: enriched TNT 2.0 services on first TNT 2.0 TVs!
Symposium, December 5th 2011

Panel Introduction: Security & Streaming

Challenges in the horizontal model

Jean-Marc Racine
Managing Partner, farncombe
WHO WE ARE

Our People

- We are specialised in media and telecommunications
- Our team combines sector knowledge, analytical skills and technical expertise
- Our senior management has practical, executive experience in the industry

Our Practices

- Technology
- Strategy
- Programme Management
- Content Security
- System Integration
- Engineering Services
- Test & Certification
- Design

Our Clients

- Broadcasters
- Pay-TV and Telecom Operators
- Private Equity and Investment Groups
- Regulators and Industry Groups
- Content Providers
AT THE ROOT OF SECURITY: A ‘CHAIN OF TRUST’

Taking money from an ATM: a good example of an everyday chain of trust

Consumer

Card

ATM

Bank
BUT WHO CAN BE TRUSTED IN THE CONNECTED WORLD?

Over-the-top video delivery in a horizontal retail model breaks down the traditional pay-TV chain of trust and leads content providers into a potentially uncontrolled environment.

Traditional PayTV/ IPTV

- Content / carriage rights
- Aggregator
- Distribution
- Reception
  - Software
  - Hardware

One distribution platform

e.g. UPC, SKY, CANAL+…

Limited number of devices. 1 CA System, 1 middleware provider on each network.
BUT WHO CAN BE TRUSTED IN THE CONNECTED WORLD?

Over-the-top video delivery in a horizontal retail model breaks down the traditional pay-TV chain of trust and leads content providers into a potentially uncontrolled environment.

Traditional PayTV/ IPTV

Content / carriage rights

Aggregator

Distribution

Reception

Software

Hardware

Connected World

e.g. BBC, Netflix

Xbox Live, Apple, Boxee

Broadband/ Mobile Operator

e.g. BBC iPlayer,

e.g. TV PC/ STB

Limited number of devices. 1 CA System, 1 middleware provider on each network

One distribution platform

Different quality/bandwidth for each operator

Multiple environments/ middleware

Multiple devices: STBs, TVs, mobiles, PS3, etc
The Internet has driven both manufacturers and content players to compete for direct access to the “connected TV”.

**Aggregators/ Portals**
- Dailymotion
- YouTube
- Google tv
- BOXEE

**VoD/CatchUp providers**
- MyTF1
- pluzz.fr

**Game Consoles**
- PS3
- Wii
- Xbox 360

**STB & Connected TV**
- LG
- SAMSUNG
- HUMAX
- Panasonic

**IP Network**

**PayTV and FTA**
- FREEBOX
- CANALSAT
- Bbox
- FRANSTAT

**OTT set-top-boxes**
- 3view
- popbox
- maxdome
- fettl TV
Multiple companies, all with different perspectives on the security requirements to be fulfilled, are competing to deliver solutions for connected devices.

**PC/Apple solutions**
- Microsoft
- Apple
- Adobe

**Industry Initiatives**
- marlin
- CI+
- KeyChest

**Software CA Players**
- verimatrix
- WIDEVINE
- Google
- Latens
- Pace

**Legacy Pay-TV CA Players**
- NAGRA
- NDS
- irdeto
- conax
- viaccess

Non-exhaustive examples of suppliers
BUILDING A SECURE PLATFORM TO ENABLE CONTENT DELIVERY TO CONNECTED DEVICES IS CHALLENGING AND REQUIRES THE CO-OPERATION AND COMMITMENT OF ALL PARTIES INVOLVED

**Device manufacturers**
- Need to provide devices compliant with hardware and software security requirements of DRM vendors
- Must commit to provide upgrades to maintain security
- Need to provide adaptive streaming solution to ensure highest possible content quality

**Security Providers**
- Need to comply with broadcaster and studio requirements
- Must supply a trust model complying with the needs of broadcasters, operators and manufacturers
- Have to demonstrate ability to maintain a secure platform for the lifetime of the device

**Broadcasters/Operators**
- Need to be able to operate a secure, multi-device platform meeting the requirements of content providers, including for HD and premium VOD content
- Need to ensure optimum streaming quality for its content, to extend the broadcast experience in the broadband world

**OBJECTIVE:**
A secured content distribution environment for connected devices offering the optimum streaming experience to consumers

**Consumers**
- Need an affordable solution they can identify, understand and which is designed to encourage them to consume content
**REASONS FOR HOPE?**

Studios, CE Manufacturers, Network Operators and Standardization bodies are looking at enabling secured OTT content distribution, but many challenges remain!

**CE MANUFACTURERS**

**CONNECTED TV**

- Samsung Apps
- HbbTV
- BRAVIA Internet Video
- GoogleTV

**NET TV**

**PAY-TV OPERATORS**

**TV EVERYWHERE**

**STUDIOS: ULTRAVIOLET**

- DRM A
- RIGHTS LOCKER (USER-CENTRIC)
- DRM B

**STANDARDS**

- MPEG DASH
- Adaptive Streaming protocol
- ISO/IEC 23001-6

- Common Encryption
- ISO/IEC 14496-12 (ISO/IEC 23001-7)
PANEL: CONTENT SECURITY & STREAMING

Thierry Fautier, Sr Director Convergence Solution

Gilles Bocon-Gibod, SVP & Chief Architect

Xavier Pouyat, Senior Program Manager

Rached Ksontini, Product Manager

Guillaume de Saint Marc, VP R&D New Initiatives
Basingstoke
Andrew Glasspool
Belvedere, Basing View
Basingstoke, UK
RG21 4HG
farncombe@farncombe.com
P: +44 1256 844161
F: +44 1256 844162

London
Adriana Whiteley
222 Regent Street
London, UK
W1B 5TR
strategy@farncombe.com
P: +44 20 7297 2002
F: +44 1256 844162

Paris
Jean-Marc Racine
17 rue de l'Echiquier
75010 Paris France
farncombe@farncombe.com
P: +33 6 20 96 19 52
F: +33 1 47 53 02 94
Facts and Figures

▲ 1 of 3 sold TV sets is a connectable TV set
▲ more than 4.5 Mio. connected devices sold
▲ 10 % of households have a connected TV Set
▲ connection rate approx. 13%
▲ non-linear A/V content most important feature

Source: GfK Retail and Technology 2011

Connection Rate of 13 %

Source: GfK Retail and Technology 2011

▲ approx. 4.8 Mio connected devices (STBs and TV sets) to be sold in 2012
▲ in 2016 approx. 50 % of HHs have connected a device to the internet

Source: Goldmedia Innovation GmbH, 10/2011
Activities of the German TV Platform

▲ working group „Hybrid TV“ founded in 05/09
▲ more than 25 organization/companies participating (manufacturers, broadcaster, infrastructure provider, service provider etc.)
▲ main objective:
  • platform for all stakeholders to discuss and identify commercial requirements for Hybrid TV in Germany and enable the market
▲ release of White Book in 09/11
▲ release of Usability Guide in 11/11
White Book „Hybrid-TV“

▲ explanation of Hybrid-TV, Smart TV, OTT etc.
▲ report of the current situation and market in Germany
▲ describing future tendencies
▲ discussion of business models for Hybrid-TV
▲ reflecting the achievements and next steps of the working group
▲ introduction to HbbTV
HbbTV- a success story in Germany

- plenty of HbbTV apps from various broadcasters (e.g. RTL, P7S1, Sport 1, Yavido etc.) launched
- variety of HbbTV devices from different manufacturers (e.g. LG, Samsung, Sony, Inverto, TechniSat, TTG etc.) developed and market
HbbTV – device base deployment

By 2014, HbbTV-compliant TV sets will makeup half of total Western Europe connectable TV sets (60 Million)

Source: Screen Digest, HbbTV Workshop Copenhagen 2010
HbbTV – applications in Germany

- more than 20 broadcast-related applications available in Germany
- examples of broadcasters providing HbbTV: Das Erste, ZDF, RTL, P7S1, arte, Sport1, Yavido, rbb, BR
- more than 5 applications offered via satellite (DSM-CC) from Das Erste, Sport1, HSE24
HD+ SmartTV

▲ HD+ as first platform committed to HbbTV
  • phase 1: market launch of HD+ devices with HbbTV in 09/10
  • phase 2: launch of HD+ portal in 11/11
Summary

- connected TV being well on the way in Germany
- HbbTV an important key component for the German connected TV market
- next challenge: reaching the end consumer
thank you!

contact:
Lennart Sohst
lennart.sohst@aps.de
Senior System Engineer
Consumer Electronics
About the DTG

Independent, not for profit

Over 150 members, working in partnership

Publish the UK technical specification for digital terrestrial television (the D-Book)
DTG Technology Roadmap:
D Book 7 And International Standards
DTG Technology Roadmap: Technical Feature Alignment

Freeview HD G2 (CTV)

Remote Record
Reverse EPG

Youview

Freesat HD G2

Adobe Air UI
Metadata Broker
Marlin DRM

DVB-T2
Receiver Mix AD
Target Region
Description

Adaptive Streaming
(MPEG-DASH)

Logical Channel Numbers
EIT Schedule EPG
Audio and Video Codecs
Active Format Descriptors
Subtitles
SI Compression
Content Management
Related Content (Green Button)
Accurate Recording
Series Linking
Alternate Instances
Broadcast Record Lists
MHEG (Red Button)
MHEG Interaction Channel
IP Delivery

Over Air Download
(DVB-SSU)
HbbTV Browser
(HTML)

DVB-S2
Broadcast Mix AD
Tunneled SI
Postcode Database
Resident HTML App UI
PlayReady DRM
Apple Smooth Streaming

Common Encryption

Private and Confidential: For discussion purposes only

Note: The size of the overlaps is not representative of scale and is a high level summary where some details may still be platform specific
Connected TV

Gert Svendsen

Senior Technical Manager, Product Management DTH, Canal Digital Danmark A/S
Chairman in the Technical Working Group of the Danish Electronic Association (BFE.DTU)
Member of the EBU Forum for Advanced Media in Europe (FAME)
Member of The Digital TV-Group, UK.
Agenda

• Status of SMART-TV services in Scandinavia
• Experiences so far
• Challenges
• The way forward
• 25% of the SMATV-TV sales in Europe is done by Samsung
• > 5 mio. downloads from the Samsung SMART-TV app. store since February 2010
• On average 25,000 downloads/day (by nov. 2011)
• > 550 apps. for Samsung SMART TVs available world wide
Viaplay VOD/CatchUp service

Welcome to Viaplay!

Available on LG and Samsung Smart-TV

05-12-2011

Gert Svendsen, Canal Digital Danmark A/S
Canal Digital VOD on Samsung
youSee VOD on Samsung
TV2 Sputnik VOD service on Sony
The national public service broadcaster, DR will start a pilot trial based on HbbTV in 2012

- The CatchUp Service DR NU via HbbTV applications
- Investigation of access to the service
- Quality of Service
- Etc.

The HbbTV test are headed by Carsten Corneliussen, DR Strategi & Politik, JPS
• NorDig is the common standardization regime for Scandinavia
• HbbTV will be a part of the NorDig standard and support HbbTV v. 1.1.1

http://www.nordig.org
Experiences so far

• It is still early days...
  – Quality of the networks at the costumers
  – Low hook-up rate
• Most of the applications are based on the Samsung platform
• Standardization needed
Content are handled different by content owners from platform to platform

Settop Boxes  Web applications  SMART-TV applications
The way forward...

- Standardization
  - HbbTV a great step in the right direction
  - Test and verification of applications
- Content and regulations
- Bandwidth challenge in the backbone networks
  - Imagine, if all the connected tv’s really became connected and request the same service at the same time...
The way forward...

• In a longer term, it is not an option to do applications for every single tv-brand
  – Increasing cost for development
  – Increasing cost for daily operations

• Alliances could be one solution
Thank You for your attention!

Gert Svendsen, Canal Digital Danmark A/S
The Italian way to Hybrid Broadcast-Broadband services

Giovanni VENUTI
Telecom Italia

Connected TV Symposium, Paris
5-6 December 2011
Who’s is who in Italian Digital TV

Association of DTT Network Operators (Rai, Mediaset, Telecom Italia Media, Dfree, Local stations through their associations) for promotion and development (founded in 2003)

Industry-wide association, constituted in 2006, including broadcasters (Aeranti-Corallo, Mediaset, Rai, Sky Italia, Telecom Italia Media), telcos (Fastweb, Telecom Italia), manufacturers (ADB, Panasonic, Philips, Samsung, Sony, ST, Telsey), public institutions (FUB) and operators from various sectors (Eutelsat, Fracarro, Frame, IDS, SBP, Sisvel Tech), for promoting HD and 3D in Italy

Joint Venture created in 2008 by the main Italian terrestrial broadcasters (Mediaset, RAI and Telecom Italia Media), to provide satellite Free To Air digital television in areas not covered by terrestrial networks under the “tivùsat” brand. Active also on DTT as EPG Provider.
Roles and cooperations

• Since 2004 DGTVi has released specifications setting baseline requirements for interoperability of DTT receivers with services offered by operators. Italian DTT has been interactive from day 1. DGTVi choose MHP, the DVB standard middleware, for this purpose.

• In 2008 HDFI joined DGTVi in specification activities when they entered into the new HD and Hybrid Broadcast Broadband (HBB) spaces.

• Aligned HD and HBB specs for satellite were progressed during 2009-2010 in collaboration between HDFI and tivù.

• Both DGTVi and tivù have developed their own Logo programs, with related certifications, aiming to promote compliant products towards consumers.
DTT specs timeline

HD-Book DTT 1.0

D-Book 1.0
DVB-T
SD (MPEG-2)
V.90 modem
MHP 1.0.3

D-Book 1.1
LCN
Clv1 for TVs

HD (H.264)
Ethernet
CI+ for TVs
MHP 1.1.3
HBB

HD-Book DTT 2.0

Broadband Addendum
OIPF PAE
HTTP streaming

DVB-T2
3D (2D bc)
OIPF HAS
GEM 1.3

Sep’ 04
Apr’ 07
Oct’ 08
Oct’ 09
Jan’ 11
Facts and figures

- Some 9.5M first generation MHP SD DTT receivers have been sold since 2004
- More than 1M MHP SD tivùsat receivers sold in 2 years of operation
- Around 1M DGTVi Gold Label certified devices already in the field
  - STB: ADB, Fuba, Humax, Sagemcom, Telesystem
  - iDTV: LG, Loewe, Panasonic, Philips, Samsung, Sharp, Sony, Vestel
- Most of Connected TVs sold in Italy nowadays, besides coming with each manufacturer’s own widget portal, are also Gold Label
Latest developments

- The following Addenda to HD-Book DTT 2.0 are in the works by DGTVi and HDFI:
  - Generic DRM support
    - MPEG Common Encryption (CENC) for IP Simulcrypt
    - MPEG DASH (superseding HAS) for Adaptive Streaming
    - OIPF DRM API (already in HD-Book DTT 2.0)
  - Broadband Applications Security (BAS)
    - HTTPS-based replacement and extension to MHP Security framework for broadband applications
- Based on such Addenda tivù is going to launch its own “tivùon” branded service, a competitive portal of broadcasters’ OTT offers, which uses Marlin DRM
HbbTV in Spain: a brief update
what is aedeti?

✓ spanish association of interactive TV companies

✓ born in 2008, with the aim to promote interactivity in the region

✓ coordinates the subgroup for interactivity at the Digital TV Technical Forum

✓ focused on the selection of a standard for interactive TV / hybrid TV
• software products for digital TV platforms and broadcasters
• HQ in London and offices in W. Europe and Latin America
• references: Ericsson, GVT, Sky, Telefónica, BBC, Tiv... 
• more than 10 years in the digital media world
• about 100 employees
• listed on LSE:AIM: MIRA
the market challenges

- consolidation of OTT
- content search
- open standards
- evolution of the advertising market
- real integration of the Social TV
- ecosystem for live and on-demand TV
the past of iTV on the Spanish DTT

- first trials: 2003
  - Retesit (Telemadrid)
  - Maresme digital (TV3)
- commercial launch: 2005
  - agreement on mhp
  - up to 20% of the DTT bandwidth (including EPG)
  - imposed by DTT licensing rules
  - NO relevant footprint of mhp receivers
  - modem-based return path (when available)
- mhp in Spain was “the walking dead”
progress during the last 3 years

- Digital TV Technical forum (2009)
  - SG4: interactivity
  - No consensus about the standard (mhp recommended)

- manufacturers: connected TV trials (2010)
  - highly fragmented market approach
  - relevant commitment from broadcasters
  - concerns about the evolution of the market

- AEDETI Hybrid TV working group (2011)
  - evaluating HbbTV standard for the Spanish market
  - consensus reached and publication by official bodies
Spain selects HbbTV

08.57 Europe/London, November 27, 2011 By Julian Clover

Spain has agreed to adopt HbbTV as its system of choice for connected TV. The ministry of industry, tourism and trade has approved a document put forward by the Association of Interactive Television (AEDETI) and signed by 54 national and international companies.

AEDETI first began its exploration of HbbTV in 2009 under a mandate issued by the ministry of industry’s technical forum on digital trade.

This work was initiated in 2009 from a mandate from the Technical Forum Digital TV, sponsored by the Ministry of Industry. Spain will follow HbbTV 1.1.1, published by the HbbTV consortium and approved by ETSI.

According to GfK, around six million connected TV sets have already been sold in the Spanish market, a figure that is expected to have risen by at least 15% during the course of 2011.

Mediaset España and Telefonica are already running a pilot. Mediaset’s Telecinco is bringing in content from Telefónica’s services such as Movistar Imagenio, Movistar Videoclub and Terra TV.
interactivity over DTT: next steps

1. pending issues on the Hybrid TV group
   - interoperability group
   - progress on discussions on overlays and DRM
   - next release of the document

2. trials
   - expected model: catch-up TV portals
   - experimenting on linear + on-demand TV mash-ups
   - agreements between broadcasters, services promotion

3. growth of the connected TV market
   - expected footprint by the end of 2011: around 900k
Thank you!

They watch
We learn
You benefit
MERGING LINEAR WITH ON DEMAND

HYBRID BROADBAND BROADCAST IN EUROPE

Bram Tullemans
Project Manager
Broadband Systems & Software Platforms

EBU TECHNICAL
European Broadcasting Union

e-mail: tullemans@ebu.ch
Merging linear TV and broadband services
Device specific use of catch up services
## Hybrid Broadband Broadcast

<table>
<thead>
<tr>
<th>Country</th>
<th>Status and Details</th>
</tr>
</thead>
</table>
| **Italy** | DVB’s MHP deployed in Italy  
EBU chaired DVB, hosts Project Office, etc. |
| **Germany** | Deployed, Signalling carried on DVB-S, DVB-T |
| **France** | France Télévision have a HbbTV beta-test service on air and have won prices with their event driven services. |
| **Spain** | Launched in November 2011 |
| **Netherlands - Austria** | Expected launch of beta environments  
(EBU is helping administer HbbTV Consortium & Association) |
| **UK** | Pioneering market and complex:  
• YouView aiming for launch in Q1 2012  
• MHEG-5 well establish (but no in hybrid form)  
• Next generation FreeSAT ‘boxes will use HbbTV |
| **Nordic countries** | MHP history, but are tending towards HbbTV |
| **Other European countries** | |
Who owns the television?

- **GoogleTV**, **Yahoo TV**, **AppleTV** (Microsoft)
- **Internet Content Provider**
- **Broadcast Content Provider**
  - UK – MHEG-5, YouView
  - FR, DE, SP, NL, A – HbbTV
  - IT, NO - MHP
- **Internet Service Provider**
  - ISP iptv/cable Services
  - Orange, ...
- **Home Media**
  - Panasonic Vieracast
  - Philips NetTV
  - Samsung SmartTV
  - Sony Bravia
- **Cons Equipment Provider**
  - Home Net
EBU Principles for Hybrid Television

- Linkage between broadcast and broadband
- Access to broadcasters' content
- Content integrity and display of broadcast signal on screen
- Preservation of a safe viewing environment, including the protection of minors
- Copyright/IPR, piracy, data protection
HbbTV roll out

- Current version: HbbTV 1.1.1
- Interoperability testing of devices
- Communication of HbbTV compatible devices
- Development of standardisation to HbbTV version 1.5 (addition of MPEG DASH)
- HBB Forum creative content meeting in February 2012
- Launching services in different countries
Interesting services

- Guide audience to (related) content of their interest: What has been (Catch-up), what is now (program info) and what will be (EPG) services

- Lean back interactivity: User control of (social) media overlays, personalized recommendations and user presets

Direct relation with audience

- Return channel for user participation: It is all about the relation between audience and the content!

- Broadcaster in control of content related services: alternative to proprietary systems

Development and innovation

- Single development platform, use of existing standards and interoperability of services
Use of catch-up services on connected TV’s

- Audience chooses different content in catch-up service on connected TV’s (more documentaries, travel programs etc.)
- People watch more of the content on connected TV’s than on the standard webpage’s (longer viewing rate per program)
- The audience uses the catch up service all day long but it peaks just before live television does

- Debunking some internet hypes
  - The length of the content does not influence the viewing percentage (on demand is not only about short content)
  - On demand audience watches programs to be up to date (On demand is not the end of live or the Watercooler effect)
HbbTV standard will boost production content related interactive web services.

Broadcasters, service/content providers and device manufacturers need to work together.

- Development of content specific services, the distribution of live and on demand video and the reception of these signals are interrelated.
TechniSat

Smart TV
The company

- Founded in 1987
- Manufacturer of a wide range of digital receivers, head end systems, multi-switches, measurement devices and satellite reception equipment
- Entered the high-end TV market in 2005
- Headquarter are located in Daun, Germany
- Further locations throughout Europe
TechniSat locations in Europe
Entry in the connected world

- Launch of TechniSat hybrid devices in February 2011 in the core market
- European-wide launch in November 2011
Current ISIO devices

- MultyVision ISIO
- DIGIT ISIO
- DigiCorder ISIO
Concept of operations

- Open portal for efficient cooperation with content partners
- Support of HbbTV and CE-HTML standard
- Internet link list with TV-optimized websites
Internet link list

- Fast access to your favorite service because of the clearly organized Internet list
Browsing

- With TechniSat ISIO devices you can enter each URL and access any webpage
Future prospects

• ISIO functionality will be a constant feature of future TechniSat devices

• Internet link list will be extended continuously

• HbbTV will be a constant feature to meet the requirements of the broadcasters
Thank you for your attention!

Elmar Möller
e.moeller@technisat.de
The logical step….  

From phones…  

…to Smart Phones  

From TVs…  

…to Smart TVs
Philips Smart TV based on 4 pillars
New Tablett App for the Smart TV

NEW! EPG app on iPad

Control your TV with the iPad

View your photos on your TV
TV is about sharing content, interaction and is no longer only a “living room” experience

Consumer research shows that 50% of consumers are using the Internet on a separate device while watching TV.

From these consumers statistics show that the younger population (under 35 years old) are:

- 36% are talking with others about the program / movie they are watching.

- 15% are reading and/or posting on message boards, blogs or forums about what they are watching on TV.
New Catch up TV service & Online Video stores
New Catch up TV service & Online Video stores
Catch up TV

Confidential
Video On Demand
Payment for Philips Smart TV
Seaching for Online Content

Popular Programs show in order of popularity

Favorites
• Show on top
• Created by the user

Search

NetTV CatchUp TV

Popular

Today
Yesterday
Montag
Sonntag
Samstag
Freitag
Donnerstag
Searching for Online Content

- **Broadcast TV**
- **Program info**
- **Catch-up TV**
- **Interactive TV content**

- **ARD**
- **ZDF**
- **Broadcaster x**

- **Channel zapping**
- **EPG**
- **Catch-up TV overview**
- **Net TV Home Page**
<table>
<thead>
<tr>
<th>Philips Core Line up – Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ambilight</strong></td>
</tr>
<tr>
<td><strong>9000 series</strong></td>
</tr>
<tr>
<td><strong>8000 series</strong></td>
</tr>
<tr>
<td><strong>7000 series</strong></td>
</tr>
<tr>
<td><strong>6000 series</strong></td>
</tr>
<tr>
<td><strong>5000 series</strong></td>
</tr>
<tr>
<td><strong>4000 series</strong></td>
</tr>
<tr>
<td><strong>3000 series</strong></td>
</tr>
<tr>
<td><strong>3000 small screen</strong></td>
</tr>
</tbody>
</table>

*9706 only
**32” has 600Hz PMR, 37” has 800Hz PMR
***Sat. available H2 2011
****Only on 5806
New Smart phone App for the Smart TV

Apple & Android devices can control all TVs with Net TV
Symposium on connected TV for Europe
a broadcaster’s point of view

5 Décembre 2011

Gilles MAUGARS
TF1 CTO
Operators

Broadcasters

Manufacturers
TF1 aujourd'hui

Univers TF1

Free-to-air Television (main channel)
Free-to-air Television (complementary)
Pay TV
Web
IPTV
Smartphone & tablet

Connected TV
Attentes des Broadcasters

Capacité à développer son univers
- Outils accessibles
- Relation avec le consommateur
- Protection du programme

Potentiel de l’outil
- Textes et photos
- Vidéo en clair
- Vidéo payante
- Ergonomie homogène

Déploiement de la technologie
- Faible coût
- Solution commune à tous
- Compréhensible du public
Fixer les règles

- Spécifications
- Tests
- Logo

Communiquer

- Institutionnel
- Communication en magasin
- Simplicité du message

Se déployer sur tous les usages

- Box des opérateurs
- TV connectées
- Tablettes
Merci
Contents

1. Not only Connected “TV”  
   • Blu-ray, Home Theatre, Games console

2. Apps & OTT Video  
   • Browser on TV, or Video, or both?

3. Broadcast Catch-Up  
   • Step change in connection rates

4. What role for DRM?  
   • PlayReady & Marlin

5. Threats & Opportunities  
   • Manufacturers proprietary solutions

6. Questions?
It’s not just Connected “TV”

- Blu-Ray Disc
- Home Theatre
- Connected TV
- Game Console
- Netbox
Non-Tuner “Connected TV”

Press **RED** button to open Portal

- CE Vendors can aggregate links to HbbTV compliant apps on the resident portal
Non-Broadcast “Connected TV”

Broadcast is only a simple “launcher” app

Select “Channel” to start IP service.

All video content delivered by IP
Smart TV Apps & OTT Video
Growth of Connected Home Entertainment

- 71% of the TV sales in USA/W Europe will be connectable by 2014
- Some CE vendors already exceed
- Screen Digest forecasts active connected devices for Europe to grow to 80 million by 2014
“TV Catch-Up” Success

Where there is a strong local Catch-Up provider, connection rates are strong
What role for DRM?

- **CE Vendors proprietary platforms can manage with individual authentication and secure streaming**
  - “Manufacturer Assurance”

- **Open platforms require a standard solution**
  - DRM can provide the answer
  - Open standard solutions such as Marlin are preferred
Potential Threats for CE Vendors

- Enables horizontal market players to use CE platform to deliver IP content
  - But no manufacturer authorisation of applications
    - Potential for quality problems without collaboration agreements

- Enables B / C brands a standard path to offer a portal solution
  - Competition increase for early movers
Potential Opportunities for CE Vendors

- **Leverage already implemented standards**
  - No need for proprietary standards
    - Benefit both manufacturers and content partners

- **Enable non-tuner devices**
  - Blu-ray player / Home Theatre / game console
QUESTIONS ?
Interactivity and sport

• Host Broadcast Services: «a job for specialists»
  «making broadcast history»

• A huge amount of content is generated at major sport events

• Interactivity improves the customer’s experience and helps rights holders take full advantage of their rights on a variety of “second screens”
Host Broadcaster: « a job for specialists »

- Produce all multilateral signals and deliver them to Broadcast Partners worldwide according to production concept agreed with customer.
- Provide Broadcast Partners with the best infrastructure possible for their own (unilateral) coverage.
- Each national broadcaster has its own specific needs to serve its audience.
- Manage TV, Radio and New Media Operations: Organise operations, coordinate telecom services.
- Manage the International Broadcast Centre (IBC): Design, Build, Operate, Dismantle.
• Main customers: FIFA (since 99, currently until 2018), UEFA (currently until 2012) French Football League (currently until 2012)
• Headquarters in Switzerland, offices in Paris/Boulogne and Brazil
• Currently, 70 employees
• « Accordion company »: HBS team grows to up to 3,000 (local + international) staff during major events period
• Operates IGBS (in 50/50 JV with IMG Media), Host Broadcaster of Asian Games in Qatar, Kazakhstan, etc...
• Founding member of the HD Forum
• Recipient of several major international awards (Sportel, IBC Amsterdam, Emmy – with ESPN, Association for International Broadcasting (AIB), etc...)
“The Formula 1 effect” : major events have a significant impact on broadcast history

Always enhancing standards and services by introducing carefully-designed innovations, HBS helps advance the evolution of (sports) broadcasting:

• First Single HDTV production at 2006 FIFA World Cup Germany
• 3D production and Host Broadcasting at IIHF World Championship 2008 Quebec, 2010 FIFA World Cup South Africa, etc...
• Multimedia-oriented approach since 2002 :
  – Huge increase in content delivered : Multi-feeds Concept & Turn-Key Programming (since 2002)
  – Media Server generated / accessible deliverables (since 2006)
  – Dedicated feed for mobile devices (since 2008 for LFP, 2010 for FWC)
In 2010, HBS produced **18 distinct feeds**, generating more than 2,200 hours of coverage.
HBS produces / gathers content and data from its partners and makes it available to the broadcast community

- Media Server: 1st introduced by HBS in 2006
- Enables Broadcasters to access over 3,000 hours of footage from a dedicated set-up
- Ability to browse, log and exchange match material...
- To access (semi-raw and fully produced) content gathered by HB dedicated ENG crews (42 in 2010), as well as the archiving service
Overall content delivered in 2010

- **2,200 hours** of Match Feeds: ESF, CSF, Team A&B, Tactical, PlayerCam A&B, Clips Compilation, Mobile Match feed
- **64** Aerial compilations
- **80 hours** of EBIF pre-match, half-time and post-match programs
- **290 hours** of ENG rushes
- **320 Features** (Matches, Teams, World Cup and South Africa related)
- **122 Promos**
- **64 Match Closers**
- **99 World Cup Update**
- **64 MD-1 live coverage from venue + 160 Match Day -1 packages**
- **289 Infotainment Features +**
- **2,734 Player Vignettes**
Mobile content 2006 & 2010

Dedicated mobile content production:

2006: Mobile content was made up entirely of in-match clips
      Reframing of match content through “pan and scan”

2010: Specific live mobile feed as produced by HBS for French League 1
      Innovative mobile packages were produced with tailored content, specific to mobile network operators, users and mobile football fans around the world

- 64 Mobile match feeds
- 400 Team Specific reports in 8 languages
- 900 World Cup Updates in 11 languages
- 5,250 Still images captured
- 6,300 Text descriptions written
- 15,000 Mobile match clips voiced in 11 languages
BBC 2010

• Live matches, highlights, news & additional programming
• BBCi Red button
  – Including interactive coverage during live games, alternative commentaries and rolling highlights
• Specific World Cup website
  – Including news, VOD & live match streaming
• Social networking
• World Cup mobile browser service
Helping BBC reach their objectives

- BBC had big presence in host country plus operations in UK
- Multichannel & multimedia broadcaster
  - Live & recorded sports programming, daytime insertions, news, broadband and mobile production units
- Aggregator of their own and HBS content
  - Multifeeds access for live match programming
  - FIFA Max customer
    - Using much of 100 plus hours per day
    - Plus HBS edited content
ESPN provided Unprecedented Access for the Best Screen Available
The Average Daily Multi-Platform User Went to 2.3 Platforms
The Soccer Power Index (SPI)

- **Spain** (1st): Euro 2008 winners and perfect in World Cup qualifying, but came third in Confederations Cup.
- **Germany** (2nd): The offense -- third in European qualifying scoring -- is a key.
- **Brazil** (3rd): Have been No. 1 for the past year and steadily moved up in the 12 months before that.

**SPI Ratings**
- Overall: 85.9
- Attack: 3.4
- Defence: 6.4

**Biggest SPI Movers of the Month**
- **Syria** (AFC) +15
- **Guinea-Bissau** (CAF) +9
- **Vanuatu** (OFC) +7
- **Iraq** (AFC) -17
- **Sierra Leone** (CAF) -17
- **Taijikistan** (AFC) -14

What is SPI?
SPI rating represents the percentage of points a team would accumulate if a round-robin tournament were to be held among all the teams in the world.
16

Created Innovative Products to Fuel Passion and Interest

ESPN Mobile App
17

Built a Community to Ignite Conversations

World Cup on ESPN

What's on your mind?

World Cup on ESPN + Others World Cup on ESPN Just Others

World Cup on ESPN

World Cup on ESPN

Welcome to ESPN's fan page for the FIFA World Cup. This page will be updated with tons of new World Cup content, so become a fan, invite your friends, and check back.

World Cup on ESPN

World Cup on ESPN has the preview for the USA vs Algeria match (9:30AM ET on ESPN3.com). Knowing that the US team is one win from the Round of 16, we're wondering if the US fans out there have any pre-match rituals or routines to bring the team good luck? If so, care to share? Where's everyone watching?

Match Preview: USA vs Algeria

Source: social.espn.com

The latest scenario for the United States to reach the round of 16 is to beat Algeria in its final Group C match on Wednesday in Pretoria.

View at 1,497 comments

Write a comment...
Multimedia Access Drove Incremental Consumption for ESPN

- 2002: Korea-Japan, 1048
- 2006: Germany, 2316
- 2010: So Africa, 4777

Percentage Increases:
- 2002 to 2006: 121%
- 2006 to 2010: 41%
- 2002 to 2010: 48%
Second Screen/Multimedia

- Multimedia consumption to continue
- Another big lift expected from:
  - 2012 Olympics (BBC “plays at home”, and promises a best ever, incl. making all sports available live)
  - EURO 2012: UEFA offers its Rights Holders Live Match Streaming, (white label) Mobile APPs, a range of web services incl. XML news feeds, a MatchCentre application, statistics application, etc...
- Rights holders targeting content on multiples devices:
  - PCs
  - Tablets
  - Smart phones
  - Smart TV
  - Gaming consoles
Second Screen Content

- FIFA/HBS initial 2014 assumptions based on feedback from market and rights holders
  - Significant growth and innovation in this area
- Live streaming (with data) and catch-up/watch again services
  - + Mobile feed
- Mobile in-match clips service
- VOD
  - Highlights, interviews, team reports, etc.
- Data (stats and animated content derived from data)
- APPs
  - White label APP
  - + Component elements (VOD, interactive camera plans, data, etc.)
- Broadband embedded video players
  - White label player
  - + Component elements (VOD, streaming, data, etc.)
- Content to drive social media debate/forum

Making broadcast history™…
Multimedia Technical & Operational Considerations

- Technical standard(s)
  - Event-time internet standard to be determined
- Content production technical platform
- Metadata
  - Assist end users downstream to speed up editing or publication
- Content hosting
  - Many rights holders will have big news and sports programming departments off site
    - Fast, easy, inexpensive(!) access
- Level of service
  - B2B and/or B2B(2C)
An important “player” : Delta Tre

- Olympics 2012
  - Organising Committee (LOCOG)
  - Host Broadcaster (OBS)
    - Broadcast data feed
  - Online technical services including DIVA (Data Integrated Video Application)
    - BBC
    - CTV
    - NBC
    - Terra
    - Olympic rights in 19 South American countries
Rugby World Cup 2011

- The 2011 Digital Media Hit
- 8 platforms
- ~3M app installs
- 17M mobile videos watched
- 5M videos watched on web

Making broadcast history™…
Thank you for joining us on the Live Rugby Tracker. Don't forget to join us tomorrow at 1800 NZT for Quarter-Final 3 match between South Africa and Australia.

France will play Wales in the semi-final next Saturday night. France and Wales have never met in a Rugby World Cup match.

Mickael Meynard says
Bravo la France #RWC2011

Jess says
Still, France did play well that game, as much as I hate to admit it. #rwc2011

Chris Holland Jones says
ah well, there were some good moments for England but ultimately France prevailed with some very good play #rwc2011

You can have a look at the highlights or replay of the matches 24 hours after the game (or
Delta Tre embedded player: DIVA
Conclusions

- Sport is on top of new consumer trends and fosters adoption of new TV standards
- Major sport events provide a huge amount of content, beyond the « live event basic feed »
- Rights holders are eager to maximise interactive usage of this content to maximise their audience (esp. to younger targets) and optimise benefit of (expensive) rights
- Adoption of broadly recognised standards will further accelerate these trends and spread adoption by Leagues and secondary events
Digital television in Russia

Henrikas Iouchkiavitchious
TV and Radio Transmitters Network

- 17,000 employees
- 14,000 TV transmitters
- 2,500 Radio transmitters
- 35 satellite distribution systems
Transition to digital TV
Phase 1 (2009-2010)

<table>
<thead>
<tr>
<th>Power</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 kw</td>
<td>1</td>
</tr>
<tr>
<td>1 kw</td>
<td>47</td>
</tr>
<tr>
<td>100 w</td>
<td>247</td>
</tr>
<tr>
<td>To 100 w</td>
<td>2029</td>
</tr>
</tbody>
</table>

- Analog television
- Digital television
Transition to digital TV
Phase 2 (2011-2012)

Coverage: 39.4% of population

<table>
<thead>
<tr>
<th>Power</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 kw</td>
<td>10</td>
</tr>
<tr>
<td>1 kw</td>
<td>127</td>
</tr>
<tr>
<td>100 w</td>
<td>614</td>
</tr>
<tr>
<td>To 100 w</td>
<td>3139</td>
</tr>
</tbody>
</table>
Transition to digital TV
Phase 3 (2012-2013)

Coverage: 94% of population

<table>
<thead>
<tr>
<th>Power</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 kw</td>
<td>36</td>
</tr>
<tr>
<td>1 kw</td>
<td>237</td>
</tr>
<tr>
<td>100 w</td>
<td>973</td>
</tr>
<tr>
<td>To 100 w</td>
<td>4196</td>
</tr>
</tbody>
</table>
Transition to digital TV

<table>
<thead>
<tr>
<th>Power</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 kw</td>
<td>36</td>
</tr>
<tr>
<td>1 kw</td>
<td>243</td>
</tr>
<tr>
<td>100 w</td>
<td>977</td>
</tr>
<tr>
<td>To 100 w</td>
<td>5274</td>
</tr>
</tbody>
</table>

Analog television
Digital television
TV market in Russia

Subscribers
- Satellite: 32%
- IPTV: 3%
- Cable: 65%

Revenues
- Satellite: 28%
- IPTV: 4%
- Cable: 68%
Russian TV composition
31% - commercial TV

Broadcast 69%
Cable 18%
Satellite 12%
IPTV 1%
Regional TV in cities of 10,000 and above
(No. of broadcasters)

- Less than 2 hours per day: 496
- 2 to 3 hours per day: 149
- 3 to 4 hours per day: 62
- 4 to 8 hours per day: 68
- 8 to 16 hours per day: 19
- 16 to 18 hours per day: 6
- 18 to 24 hours per day: 49
TV and Radio Advertising Market Structure

2010

Source: Russian Association of Communication Agencies

2011 (Jan-Sep)
Program Structure of National and Federal TV Companies in 2011

- Films: 52%
  - News: 14%
  - Sports: 5%
  - Music: 5%
  - Entertainment: 14%
  - Social & political: 4%
  - Informational: 5%
  - Children's programs: 0.1%
  - Other: 1%
- TV series: 16%
- Feature films: 20%
  - Documentaries: 6%
  - Cartoon series: 5.11%
  - Documentary series: 3%
- Plays, literary recitals: 0.1%
  - Cartoons: 2%
Ostankino: Medium-term Development Plan

<table>
<thead>
<tr>
<th>Year</th>
<th>HDTV Production Facilities</th>
<th>Total Sq. M</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>240000</td>
<td>300000</td>
</tr>
<tr>
<td>2015</td>
<td>300000</td>
<td>450000</td>
</tr>
<tr>
<td>2017</td>
<td>450000</td>
<td>500000</td>
</tr>
</tbody>
</table>

sq. m

HDTV production facilities
Ostankino: Medium-term Development Plan

HDTV studio facilities

sq. m

- 20000
- 15000
- 10000
- 5000
- 0

2011 2015 2017

- 8124
- 11424
- 18624
Ostankino: Medium-term Development Plan

SD-to-HD migration phases
Distribution of OBVans among regions
<table>
<thead>
<tr>
<th></th>
<th>OBVan 10</th>
<th>OBVan 16</th>
<th>OBVan 24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. of cameras</strong></td>
<td>10 (up to 12)</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>720р/1080i/1080p</td>
<td>720p/1080i/1080p</td>
<td>720p/1080i/1080p</td>
</tr>
<tr>
<td><strong>Length/Width/Height</strong></td>
<td>12 / 2,53 / 4,44 / 4</td>
<td>13,6 / 2,53 / 3,8 / 4</td>
<td>13,6 / 2,53 / 4,72 / 4</td>
</tr>
<tr>
<td><strong>Cameras</strong></td>
<td>9 x Sony HDC-1500R SSM 1 x Sony HDC-3300R</td>
<td>11 x Sony HDC-1500R SSM 2 x Sony HDC-3300R</td>
<td>20 x Sony HDC-1500R SSM 4 x Sony HDC-3300R</td>
</tr>
<tr>
<td><strong>Lens</strong></td>
<td>Fujinon 2 x 88xPF/2 x 42x/4 x 22x/2 x 14x</td>
<td>Fujinon 2 x 101xPF/4 x 88xPF/2 x 42x/4 x 22x/4 x14x</td>
<td>Fujinon 4 x 101xPF/5x 88xPF/2 x 42x/7 x 22x/6 x 14x</td>
</tr>
<tr>
<td><strong>Video mixers</strong></td>
<td>Snell Kahuna 360 2 ME, internal DVE</td>
<td>Snell Kahuna 360 2 ME, internal DVE</td>
<td>Snell Kahuna 360 3 ME, internal DVE</td>
</tr>
<tr>
<td><strong>Video recorders</strong></td>
<td>4 x XDCAM HD (до 8x)</td>
<td>4 x XDCAM HD (до 8x)</td>
<td>4 x XDCAM HD (до 8x)</td>
</tr>
<tr>
<td><strong>Replay servers</strong></td>
<td>3 x EVS LSM XT3</td>
<td>5 x EVS LSM XT3</td>
<td>9 x EVS LSM 3XT3</td>
</tr>
<tr>
<td><strong>Sound control panel</strong></td>
<td>Studer Vista 9</td>
<td>Studer Vista 9, Yamaha DM1000VCM</td>
<td>Studer Vista 9</td>
</tr>
<tr>
<td><strong>Coding/Decoding</strong></td>
<td>Dolby Laboratories</td>
<td>Dolby Laboratories</td>
<td>Dolby Laboratories</td>
</tr>
<tr>
<td><strong>Communications system</strong></td>
<td>Riedel</td>
<td>Riedel</td>
<td>Riedel</td>
</tr>
</tbody>
</table>
# Mobile Satellite Stations

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Format</strong></td>
<td>720p/1080i/1080p</td>
</tr>
<tr>
<td><strong>Length / Width / Width in operation / Height (м)</strong></td>
<td>7 / 2.4 / 3.2 / 3.3</td>
</tr>
<tr>
<td><strong>Cameras</strong></td>
<td>3 x Sony XDCAM HD PDW700</td>
</tr>
<tr>
<td><strong>Lens</strong></td>
<td>Fujinon 17 [ ZA-series]</td>
</tr>
<tr>
<td><strong>Video recorders</strong></td>
<td>1 x XDCAM; 1 x HDV; 1 x HDCAM; 1 x P2</td>
</tr>
<tr>
<td><strong>Sound control panel</strong></td>
<td>Yamaha DM1000VCM</td>
</tr>
<tr>
<td><strong>Microphones</strong></td>
<td>Sennheiser</td>
</tr>
<tr>
<td><strong>Loudspeakers</strong></td>
<td>Fostex</td>
</tr>
<tr>
<td><strong>Wireless communication</strong></td>
<td>Riedel Riface, Phone Hybrid Glenssound 2ch</td>
</tr>
<tr>
<td><strong>Antenna</strong></td>
<td>1.8 AvL 1812K Intelsat\ Eutelsat approval</td>
</tr>
<tr>
<td><strong>Amplifier</strong></td>
<td>2x350W CPI</td>
</tr>
<tr>
<td><strong>Modulator</strong></td>
<td>DVB-S/DVB-S2 QPSK/8-PSK</td>
</tr>
</tbody>
</table>
Main sport events in Russia

2013: World Universiade in Kazan
2013: World Athletics Championship in Moscow
2014: Winter Olympic Games in Sochi
2016: World Ice Hockey Championship
2018: World Football Cup
NRJ : TV CONNECTÉES

En complément de sa présence sur les smartphones, les PC et les tablettes, NRJ a décidé d’être présent sur les écrans connectés dès le début 2009 (mise en production commerciale dès l’été 2009).

Ce prépositionnement stratégique visait tant à ne pas laisser ce nouveau terrain aux seuls pure players qu’à se préparer à ce qui (dès le départ) s’annonçait comme devant devenir le mode de consommation audiovisuelle de demain (grand écran directement connecté au réseau IP).

Pour cela NRJ fait appel non seulement aux diverses solutions propriétaires des industriels, mais aussi à la norme HBBTV. Aujourd’hui, l’application NRJ pour TV connectées est ainsi présente sur 4 plateformes techniques différentes.

Attention : la TV connectée pourrait (si on laisse « la loi de la jungle » s’installer ») se révéler destructrice de valeur. En effet, les audiences linéaires et non linéaires vont de croiser tôt ou tard et la publicité en ligne est vendue moins chère que la publicité TV. De plus, l’arrivée d’acteurs concurrents (désormais sur les mêmes « écrans » TV, mais jouissant d’une «régulation» différente plus favorable) risque de tirer les tarifs à la baisse et/ou de préempter les campagnes de pub à leur seul profit. De « nouvelles règles du jeu » (plus équitables) s’imposent donc sur le « nouveau terrain » que constitue l’écran connecté.
TV connectée : Petit état des lieux

✓ 1 255 000 foyers équipés (4.7% des foyers équipés TV)
✓ 53 % de foyers 25-49 ans (contre 40.8% pour l’ensemble des foyers équipés TV)
✓ 42,6% de foyers CSP+ (contre 29.9%)
✓ 51,7 % de foyers dans une agglomération de + de 200 000 habitants (contre 38,0%)

(Sources : Mediamétrie GFK – 2ème trimestre 2011)

Actuellement (mais depuis peu), plus de 40% des nouvelles TV « connectables » achetées sont désormais « effectivement connectées » (source NRJ).
Le nombre de visiteurs uniques deviendra significatif dès la fin 2012.

Outre les aspects « réglementaires », il reste néanmoins à gérer quelques problèmes sérieux, qui seront mécaniquement induits par l’accroissement de l’audience : notamment la capacité des réseaux IP à tenir la charge (avec une qualité de service adaptée à de la vidéo sur grand écran (catchup et Vod obligent).
TV connectée : Volume des ventes en France

(Source : GFK Retail and Technology France)
**TV connectée : les services attendus par les français**

« 44% des sondés estiment que la télévision connectée les amènera à consommer davantage l'écran du téléviseur au détriment de l'ordinateur »

<table>
<thead>
<tr>
<th>Service</th>
<th>Pourcentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catch-up (rattrapage)</td>
<td>70%</td>
</tr>
<tr>
<td>Guide des programmes</td>
<td>64%</td>
</tr>
<tr>
<td>Stockage de données personnelles</td>
<td>57%</td>
</tr>
<tr>
<td>Services pratiques (météo, trafic info, etc.)</td>
<td>56%</td>
</tr>
<tr>
<td>Fiche Technique (film ou série)</td>
<td>55%</td>
</tr>
<tr>
<td>Accès à des sites</td>
<td>55%</td>
</tr>
<tr>
<td>Infos complémentaires sur le contenu d'une émission</td>
<td>50%</td>
</tr>
<tr>
<td>Catalogue d'applis gratuites</td>
<td>46%</td>
</tr>
<tr>
<td>Portail Vidéo</td>
<td>45%</td>
</tr>
</tbody>
</table>

(Sources : Etude MPanel GroupM, WPP janv 2011)
La première version de l’univers NRJ est présente depuis 2009 sur les écrans TV et sur les lecteurs Blu-Ray connectés de Philips.

En décembre 2010, l’univers NRJ est arrivé sur les adaptateurs TNT puis sur les téléviseurs connectés de Toshiba.

Juin 2011, l’Univers NRJ débarque sur les Smart TV de LG

Depuis juillet 2011, l’Univers connecté de NRJ est présent selon la nouvelle norme Européenne HBBTV sur tous les TV compatibles.

Avant fin 2011, l’Univers NRJ sera présent sur Samsung et Panasonic
Sur la chaîne NRJ 12, après 10 secondes, un pop-up multichoix apparaît en surimpression dans le coin supérieur droit (et disparaît automatiquement après quelques secondes si l’utilisateur ne clique pas sur l’une des vignettes).
L'application NRJ
Opening the way to HBBTV in Spain
The way to HBBTV

• Prehistory: MHP way is gradually abandoned by broadcasters

• 2008: RTVE’s interactive unit is created. First approach to “connectivity” on TV sets through game consoles. There’s not maturity at the local level

• 2009: second round. Manufactures starts their walled garden approach. RTVE prospects on HBBTV.

• 2010: RTVE declares officially that will support HBBTV

• 2011: RTVE invites spanish broadcasters to join forces to make HBBTV real. First HBBTV applications on the air
First specification adopted

• AEDETI reactivate Interactive TV Group with the support from SETSI. April 2011

• RTVE declares that will support this new effort but invites broadcasters to discuss independently

• RTVE, Antena 3, ETB and TV3 starts works defining basic requisites.

• New broadcasters join the group of broadcasters for HBB definition. The group gets completed with the rest of public service territorial broadcasters, La Sexta and Mediaset.

• Specification is published officially in September 2011
Spanish Group of Broadcasters for HBB

• Unformally created. Broadcasters joined to avoid same mistakes done in the past.

• Base document is EBU Principles for the hybrid television.

• Main goals: own voice in the process of adoption, promote HBBTV standard, promote consensus.
HBBTV Apps Working

• RTVE lunch first HBBTV in June.

• Followed by Telecinco (Mediaset) some days after.

• TV3 HBBTV app in August 2011. Followed by La Sexta and other territorial public service broadcasters.

• HBBTV portal from UNEDISA (El Mundo) is under development
Common graphic experience
“RTVE.es A la carta” HBB Ecosystem

XL Version

Device with full browsing

Proprietary apps

Manufacturer’s portals

Versión HBBTV

TV sets supporting standard
Some concerns to solve

• Requisites document published by SETSI still includes key elements as “not agreed”: overlay, DRM among others.

• Interoperability.

• Audience Measurement
Thank You!!

franciscojose.asensi@rtve.es
tivù Srl is a joint venture founded in October 2008 by Rai, Mediaset and Telecom Italia Media

- Shareholder -

Rai Mediaset Telecom Italia Media FRT Aeranti Corallo

tivù Srl

Comments

- tivù is a joint venture founded by Rai, Mediaset and Telecom Italia Media aiming to help Italy in the digital transition

- tivù launched its services in January 2009 on the digital terrestrial platform and in July 2009 on the satellite

- In May 2010 also the two main associations of local broadcasters joined the company with a minority share: FRT and Aeranti Corallo
tivù Srl operates on two digital platforms: DTT with tivù brand, SAT with tivùsat platform and is launching a third hybrid one: OTTV with tivùon! brand/services

- **Digital Terrestrial Television promotion and development**
  - Promotion and development of digital terrestrial television platform (DTT), also through brand construction, delivering common and recognizable values

- **Ensure universal television service through a free SAT offering**
  - A free Sat platform, complementary to DTT, allowing viewers not covered by DTT to receive a free digital TV service (served through SAT)
  - More than 1M active households

- **OTTV platform enabled via MHP application secured with an open DRM solution**
  - An OTTV MHP service, allowing viewers to experience real catch-up TV and VoD services
  - Marlin Delegated Certification Authority

NEW !!!
Tivù has chosen Marlin DRM for the content protection of Tivùon! OTTV platform – an Open DRM technology that is rapidly becoming a pan-European standard

- Tivù has chosen Marlin DRM for broadband delivery content protection (OTTV)
- Tivùon! is a service for the industry and the Italian operators

Marlin Developer Community
The Marlin specifications were developed by the Marlin Developer Community (MDC) formed by major industry players together with Intertrust

Marlin: a pan-European Open DRM
The Marlin DRM has been chosen as the main content protection technology in the following countries:
- UK: for YouView, the open internet connected platform
- France: in the TNT 2.0 specifications from the HD Forum – France
- Spain: to support development of OTT-TV services

Marlin is worldwide adopted solution
Marlin is deployed in a variety of devices and services:
- Japanese national IPTV
- Sony PlayStation Network, PS3, PSP, TVs, and other devices
- Philips NetTV
- Open IPTV Forum for ‘over the top’ IPTV delivery
- Chinese television IT services
Tivù will release a new label that, when added to the “DGTVi gold” label, will tell the customer that the device is ready for Italian OTTV services with Marlin DRM – MHP 1.1.3 – Mpeg DASH and CENC.
TivùOn! the first coopetitive Italian OTTV platform – a service trial will be launched by Q1 2012

OTTV TivùOn! Portal will be accessible through TivùSat EPG (and also via a dedicated broadcasting channel)

- TivùOn! portal is based upon an MHP broadband service that works on Golden label and TivùOn! certified devices compliant to:
  - Marlin-based DRM Addendum 1.0
  - BAS Addendum 1.0 (Broadband Application security)
  - Tivù’s profile of DGTVi/HDFI “Broadband Applications Security Addendum 1.0”, a generic framework for securing OTT applications

- TivùOn! portal will be the gateway to catch-up TV and VoD services offered by the main Italian broadcasters
TivùOn! homepage
TivùOn! – VoD catalogue broadcaster selection
TivùOn! – VoD catalogue content selection

Commedia
Notting Hill
TivùOn! – VoD catalogue broadcaster selection
TivùOn! – VoD catalogue content selection