YOUR DIRECT-TO-TV EXPERIENCE
“It will take another 10 or even 20 years before linear TV disappears completely.”

Source: Reed Hastings, Netflix CEO, Der Spiegel Sept 17th, 2021
TV INDUSTRY SNAPSHOT

Shift to Live streaming content by consumers is on the way but...

**Linear TV** (Broadcast & Cable for 63%) still dominate on the big screen in the US.

75% of TV viewers EMEA navigate between linear and OTT content when they watch TV

Source: Analysis of June 2021 Nielsen National TV Panel Data plus Streaming video ratings

(*) of Samsung TV viewers in the EMEA – Source: SmartLab+ - Smart TVs – Pan-EU - 2021
TV INDUSTRY SNAPSHOT

Aggregate multiple services to compete is key but challenging

75%* believe **aggregation from OTT apps and broadcast available is the winning model**

Compelling UX

but only by delivering a universal search in a seamless way to consumers

Giving consumers extra choice is becoming a significant advantage

(*) of TV & multi-play operators – Source: Digital TV Europe – Industry Survey - March 2021
BUT HOW TO GIVE THEM THE CHOICE

... as they have access to TV content from multiple devices

Broadcast → Moving to Hybrid → OTT

Keep engaged people used to subscribe operators' devices

Add OTT services

Add Pay-TV offers

Move towards a Horizontal BYOD centric approach

Reaching consumers that would not otherwise be accessible
TURN A RETAIL DEVICE, SUCH AS A SMART TV INTO AN OPERATOR MANAGED DEVICE: ISN'T POSSIBLE?

Bringing the benefits of a STB to the BYOD world.
YES IT IS POSSIBLE!

!The perfect bundle for the best hybrid experience!
BENEFITS FOR THE FINAL USER

All your favourite content in the same place

Consume your content when and how you prefer

Use only a single remote control

You do not need additional cables or set-top boxes

You will be eco-friendly and have lower electricity bill
BENEFITS FOR THE OPERATOR

Push your brand and service to new customers

Drastically reduce your subscribers acquisition costs

Bring your user experience consistently across TVs

Deliver highest value content with state of the art security

Co-market your service with TV vendors
SMART TV INCLUDES MOST OF STB FEATURES

- As powerful or even more than a STB
- Up to date on A/V technologies and CODEC compliancy
- Includes STB standard features

→ But a STB brings operator content & delivery control.
Managing Broadcast for a full Hybrid TV experience

Taking control over the TV UI for a unified UX

Enhancing security level of your content & App
THE RIGHT BALANCE BETWEEN COST & QOS/QOE

YOU DON’T HAVE TO DO THIS CHOICE.
A FULL HYBRID EXPERIENCE

TV Stick: Broadcast Live QoE guarantee

✓ **Enrich** Live Broadcast transmission with additional Streaming content

✓ **Provide a seamless transition** from Linear TV to full On-demand in a single and unified interface (Catch-up, Start-Over, new streaming channel...)

✓ **Avoid to invest** in expensive CDN infrastructure to guarantee Quality Of Service
GIVING YOU THE CONTROL

Over the TV UI for a full operator branded UX

✓ Bring a Universal & Unified UI (HTML-5) across various devices (STB, mobile, Smart TV...)

✓ Advertise and install the App from the CI Plus CAM to ease Customers’ Journey (discovery, automatic log-on, etc...)

✓ Retain subs into your own-branded UX relying on a persistent App
ENHANCING GLOBAL SECURITY LEVEL

On both Content & Consumer Data

✓ CAS & Studios high security requirements compliancy

✓ Watermarking, fingerprinting technology integration

✓ HDMI output control

✓ Trusted App
TV-STICK + SMART TV = A WINNING COMBO

simpler, faster and greener than STB

- Low Carbon Footprint & Recycling
- Minimized logistics (less packaging)
- Energy saving (low power, directly powered by the TV)
- No extra material

- Easy conversion to hybrid: HTML-5
- Less system integration
- Lower Capex (HW+SW)
TAKEAWAY

TV-Stick + HbbTV OpApp = THE WINNING COMBO

• Broadcast Linear TV is not dead and still prevalent on TV screen

• Smart TVs and HbbTV bring the missing link with powerful application and interactivity

• Pay-TV Operators get the same Hybrid STB experience but:
  • Faster: less integration
  • Cheaper: less complexity, low Capex
  • Cooler: let the customer use its preferred device (BYOD)
It’s never a done deal until it’s a done deal!

STB/CAM is dead

Linear TV is gone
THANKS FOR YOUR ATTENTION!
TECHNICAL BACK-UP
WHAT DOES THE TV-STICK BRING TO HBBTV ECOSYSTEM?

- Discovery
- Customization
- No Connection
- User identification
- High Value Content
- H/W RoT
#1 NATURAL DISCOVERY
#1 - CAM IMPROVES OPAPP DISCOVERY AND INSTALLATION

1. User Selects a TV service
2. User Selects a service and installs the app
3. My Portal is displayed
4. User Selects a content service
5. Content is displayed

Reference to DVB Service
- Standardised Domain Name
- Domain name from Descriptor in Broadcast NIT/BAT
- Domain Name Hard-coded in Terminal
- Hard-coded in Terminal
- From Common Interface Module

Broadcast AIT
- DNS SRV Lookup
- https:// URL
- Classic HbbTV XML AIT
#2 AUTOMATIC USER IDENTIFICATION
#2 - CAM IMPROVES USER IDENTIFICATION AND MORE

No more complex Sign-on (virtual Keyboard)

Automatic authentication from the CAM

Customized Services
#2 - CAM IMPROVES USER IDENTIFICATION AND MORE

- **Private protocol** between CAM and App
- **Link encryption** for trusted App
- Retrieve User parameters **directly from CAS** (rights, usage...)
#3 NO IP CONNECTION REQUIRED
CAM embeds a default OpApp

TV fetches HTML pages:
- OpApp installed from CAM
- Basic Operator Experience like EPG and Info banner