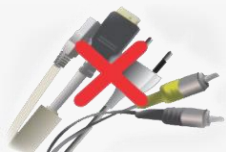

SMARDTV

HbbTV & CIPlus CAM

AUTHOR : Erik Gazzoni
STATUS : Release
CLASSIFICATION : CONFIDENTIAL
VERSION : 1.0
DATE : 2019-11-01

CAM = STB LESS EXPERIENCE



Easy to install
No new wires



Easy to use:
No additional
Remote control



Economic:
Reduced energy
consumption



Eco-Friendly:
Limit Electronic
material waste



Cost Effective:
Lower customer
acquisition costs



Fast to Deploy

CAM:

EASY WAY & FAST TIME TO MARKET TO ENABLE PAY-TV

- ❑ **A fast time to market** for Premium Pay TV
 - Simple Product
- ❑ **Lower price point** compared to HD Zapper
 - No hidden COST on 3rd party licensing
- ❑ **Lower after-sale costs**
 - Low maintenance / Reduced hotline calls
 - Below 0.1% return – based on SmarDTV & NEOTION 20 Mu shipped over years
- ❑ **Increase subscriber base**
 - Leveraging on retail distribution and promotion campaigns of TV vendors



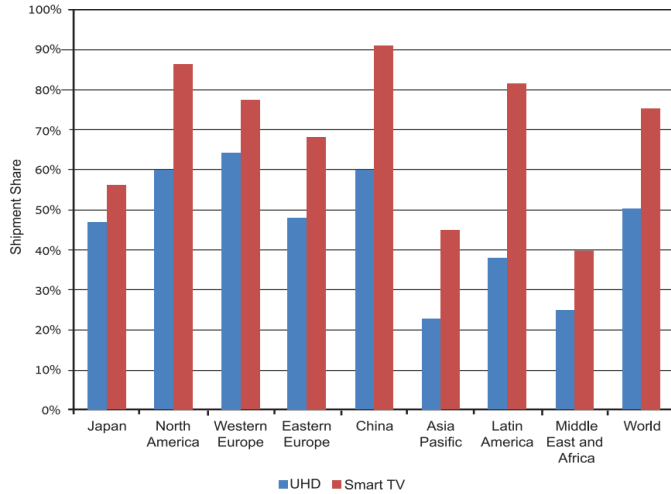
EUROPEAN STANDARDISATION AND CIPLUS ADHESION



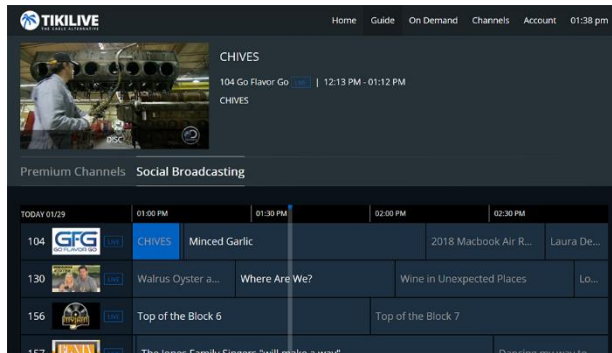
- ❑ **All** European **IDTV** are **CI-Plus** compliant since 2010
- ❑ **660** million CI Plus device certificates delivered to-date
- ❑ CI Plus referenced as a **trusted export by all major CAS vendors**, including Nagra, Synamedia, Irdeto, Verimatrix, Viaccess-Orca, Cryptoguard, and Arris
- ❑ **100** PayTV Operators over **40+** countries are using CI Plus CAMs

CAM missing link: Operator UI

ECOSYSTEM IS READY



Smart TV shipment in Q4'18 based on IHS Markit research



Rich EPG, Start-over, Catch-up with HbbTV



Available in every Pay-TV markets



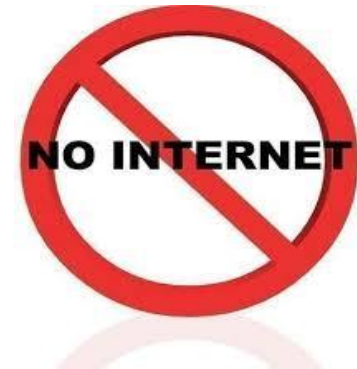
CAM IMPROVES CUSTOMER HBBTV EXPERIENCE



Discovery/Installation

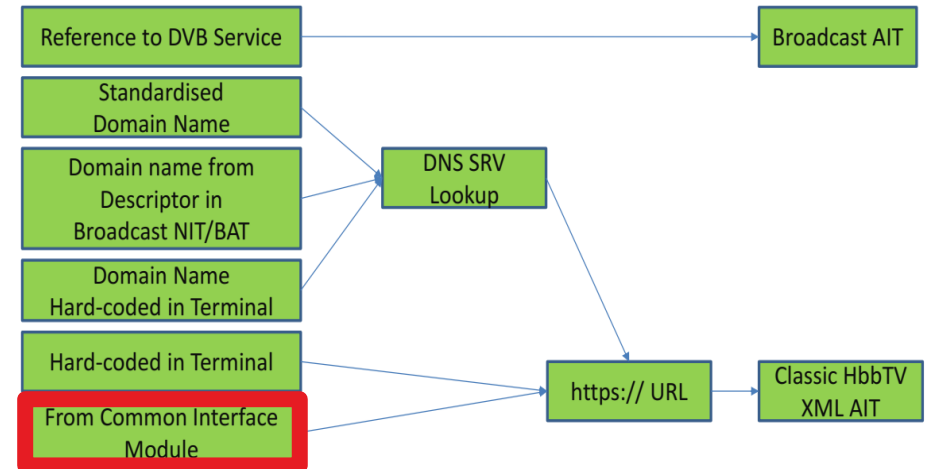
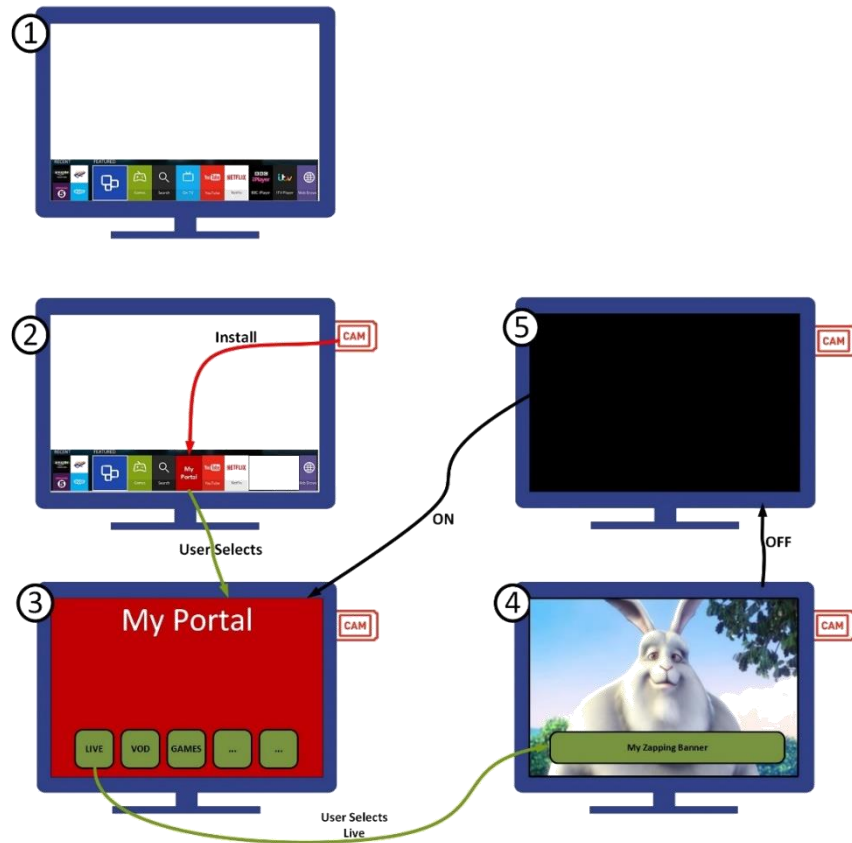


User identification

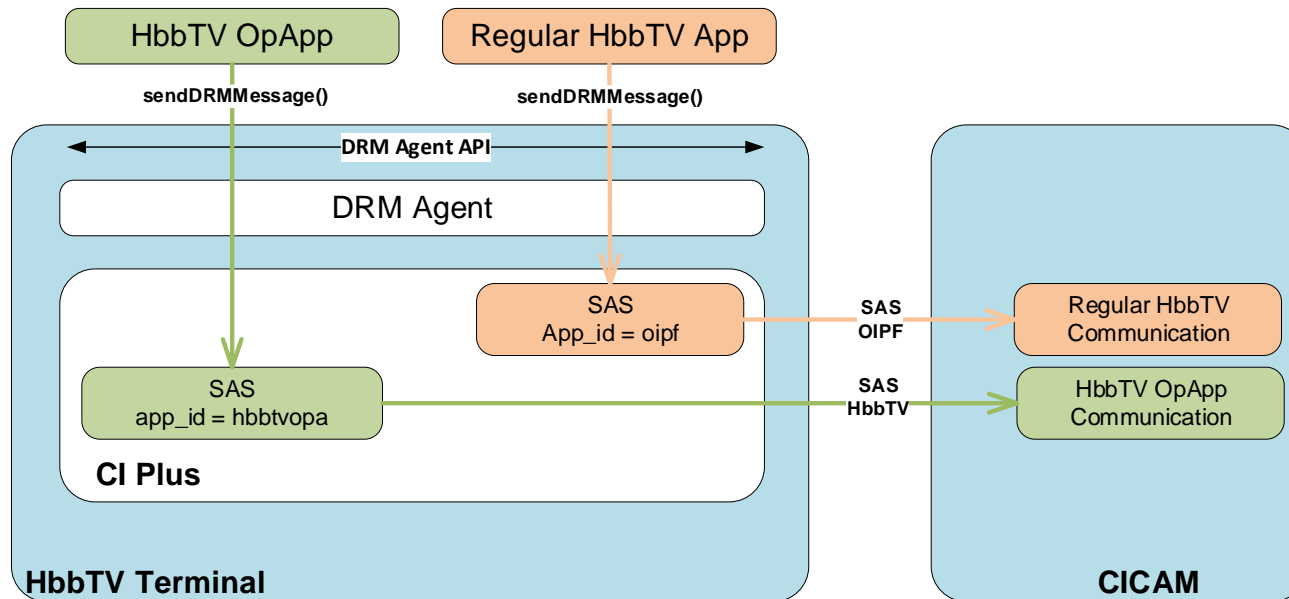


Even with no
connection

#1 - CAM IMPROVES HBBTV DISCOVERY AND INSTALLATION



#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...)
- **Avoid complex sign-on** (no more navigation with RCU on virtual keyboard)

#3 – CAM IMPROVES UI EVEN WITHOUT CONNECTION



KEY TAKE AWAY

- ✓ **HbbTV** (Operator UI) + **CAM** (Premium Security) is **the perfect bundle for a STB-less experience**
- ✓ HbbTV OpApp + CAM provides **the ultimate experience**:
 - ✓ Replace TV native UI
 - ✓ Persistent Power ON/OFF
- ✓ **Standardized**: develop once, deploy on every TV
- ✓ CAM = most user-friendly way of **installing OpApp & identifying User**
- ✓ CAM = enables Operator Experience **even if no Broadband services**

It's already happening!! PayTV Operators embracing HbbTV





THANK YOU

gracias – obrigado – merci – danke – grazie – toda – спасибо – شكرا – 谢谢 – 감사합니다 – ありがとう