
SMARDTV

HbbTV OppApp and CIPlus CAM

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What is a CICAM?

- PCMCIA form-factor
- Supporting Cardbased or Cardless CAS
- Standardized by DVB and certified by CI Plus
- 600 million CI Plus device certificates delivered (March 2018)
- All European Digital TV sets are CI Plus compliant since 2010
- Enables PayTV experience on Horizontal devices (low capex, same RCU, no cable...)



What is an OppApp?

- OpApp is an “Operator Application” that provides a STB-like experience without the STB
- To the consumer, an OpApp running on the TV has all the benefits of the STB, without the hassle of cabling and multiple remotes
- Standardized by HbbTV, so OpApps:
 - Can be Interoperable across brands,
 - Are supported by HbbTV’s testing regime
 - can coexist with “regular” HbbTV Apps running on same device.
- Suitable for any delivery system, including IPTV, Satellite, Cable, and Terrestrial



What's the CAM bringing?



Discovery



Customization



No Connection



User identification

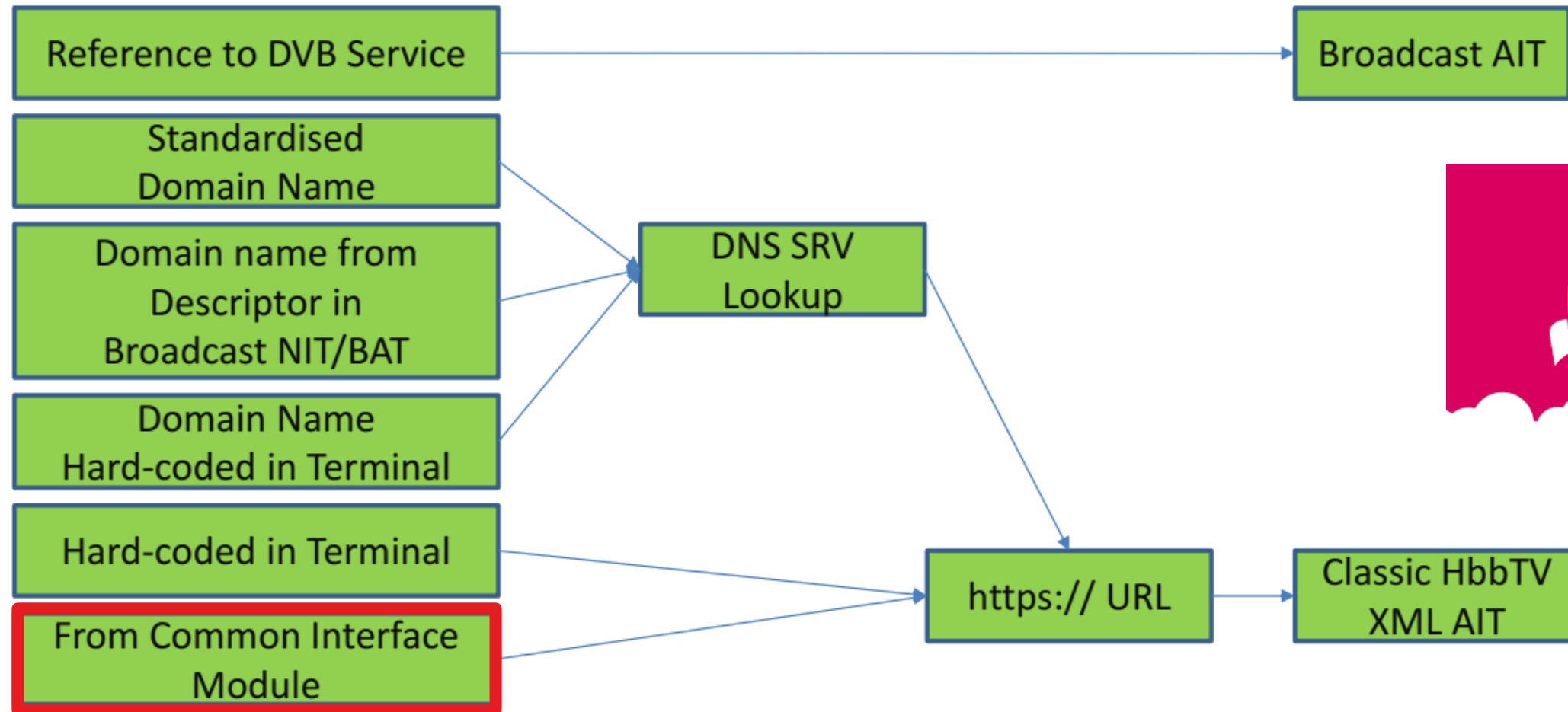


High Value Content



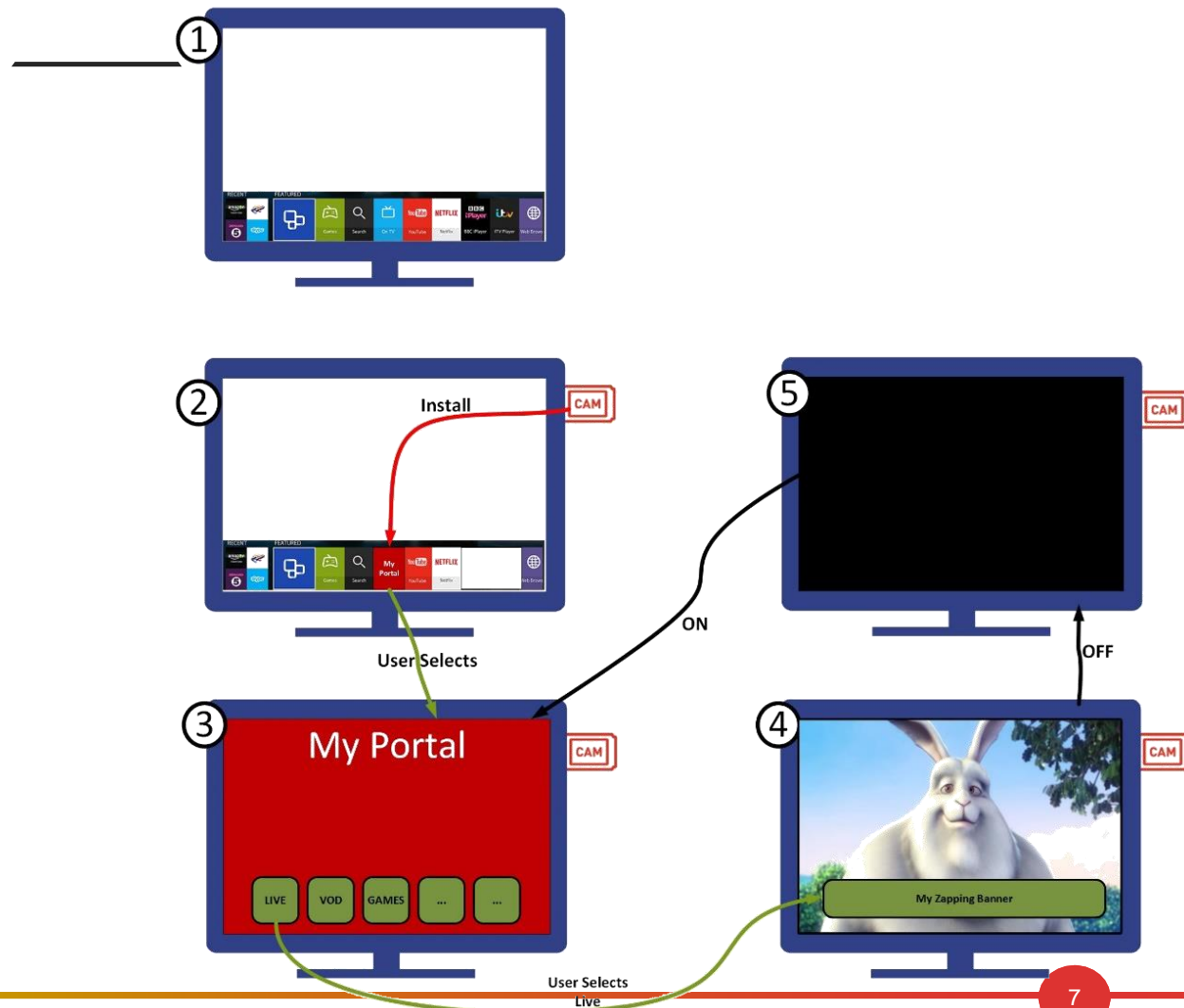
H/W RoT

Discovery



Discovery: The CAM installs 'OpApp'

- **Simplified User Access through:**
 - Operator Portal referenced in the Smart TV AppSet
 - No extra remote
 - No input selection
- **CAM:**
 - Installs the Operator Portal
- **Operator portal:**
 - HbbTV 2.1 Operator Application (OpApp)
- **Standard Solution:**
 - CI Plus 1.4
 - HbbTV 2.1
 - Generally available from 2019 TV products



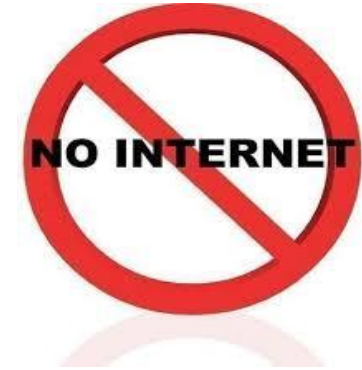
HbbTV OpApp with the CAM



Installed by the CAM



No data carousel

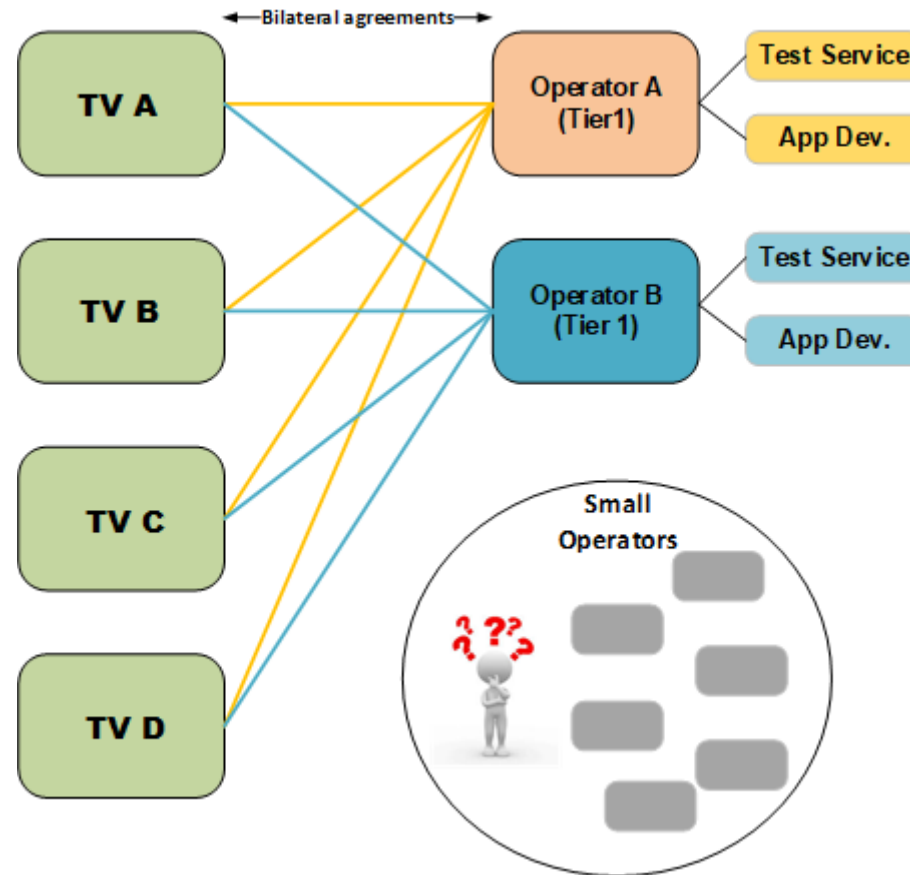


App is hosted in the
CAM

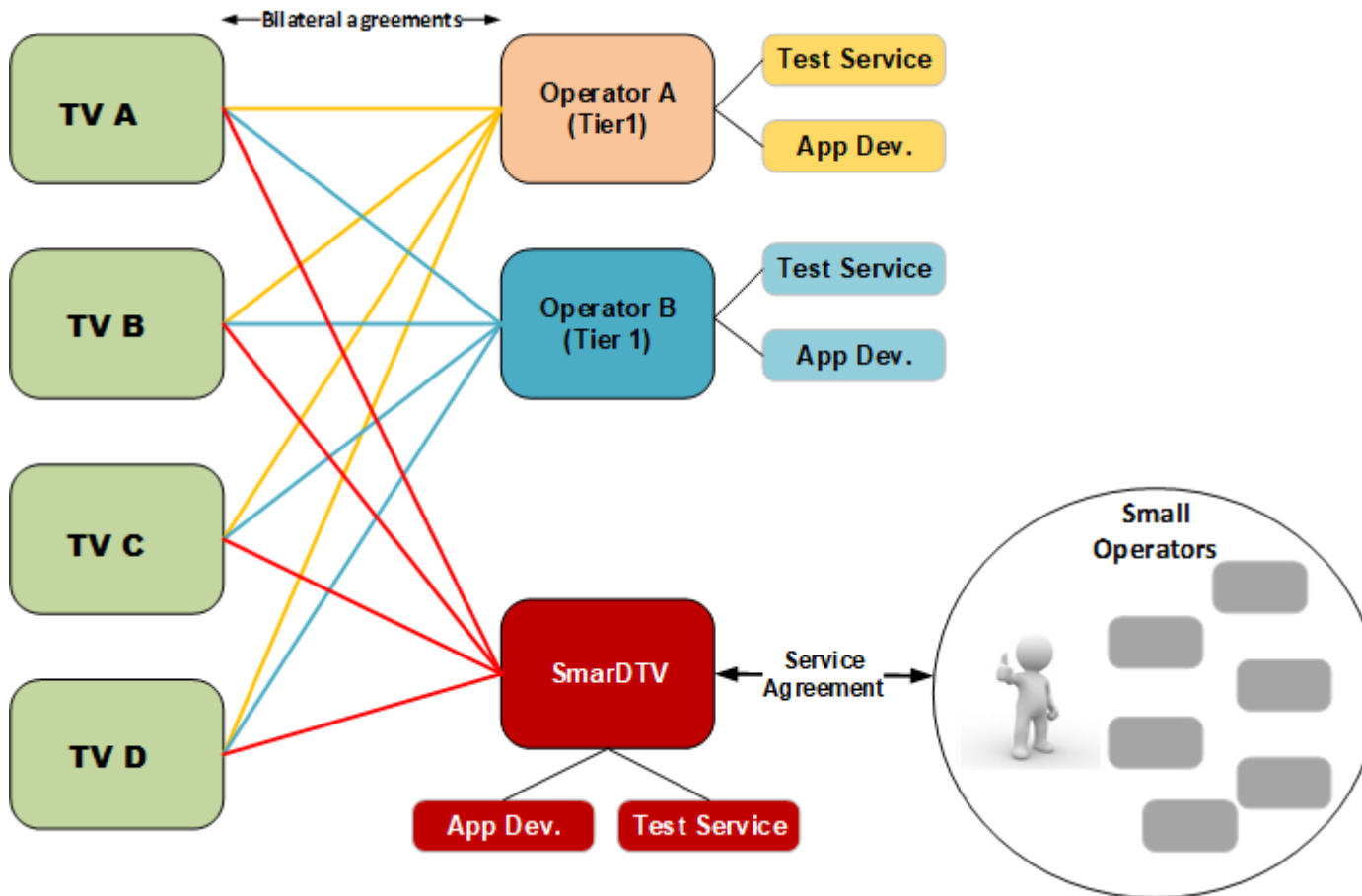


HbbTV 2.1 & CIPlus 1.4 (Operator Profile, Auxiliary File System)

Small Operators will struggle to sign agreement with TV vendors



SmarDTV (with partners) to develop White Label Framework



- As a CAM Vendor, SmarDTV has established contacts with TV manufacturers and is familiar with TV interoperability
- SmarDTV (or an extended structure) could sign agreement with TV manufacturers
- And offer Application Development (with partners) and test services to small operators
- Operators are already customers of SmarDTV
- Under a Service Agreement

Take Away



- OppApp brings Operator UI to Horizontal market (TV)
- Standardized: develop once, deploy on every TV
- OppApp + CICAM = full STB Experience without the hassles (Capex, Cable, RCU...)
- OppApp + CICAM = most user-friendly way of installing OpApp
- OppApp + CICAM = enables User Experience even if no Broadband services
- OppApp + CICAM = enhances Market deployment by providing White Label Framework



THANK YOU

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