



Accelerating a Mass Market for Connected TV Apps and Services through Open Standards and the OIPF Specifications

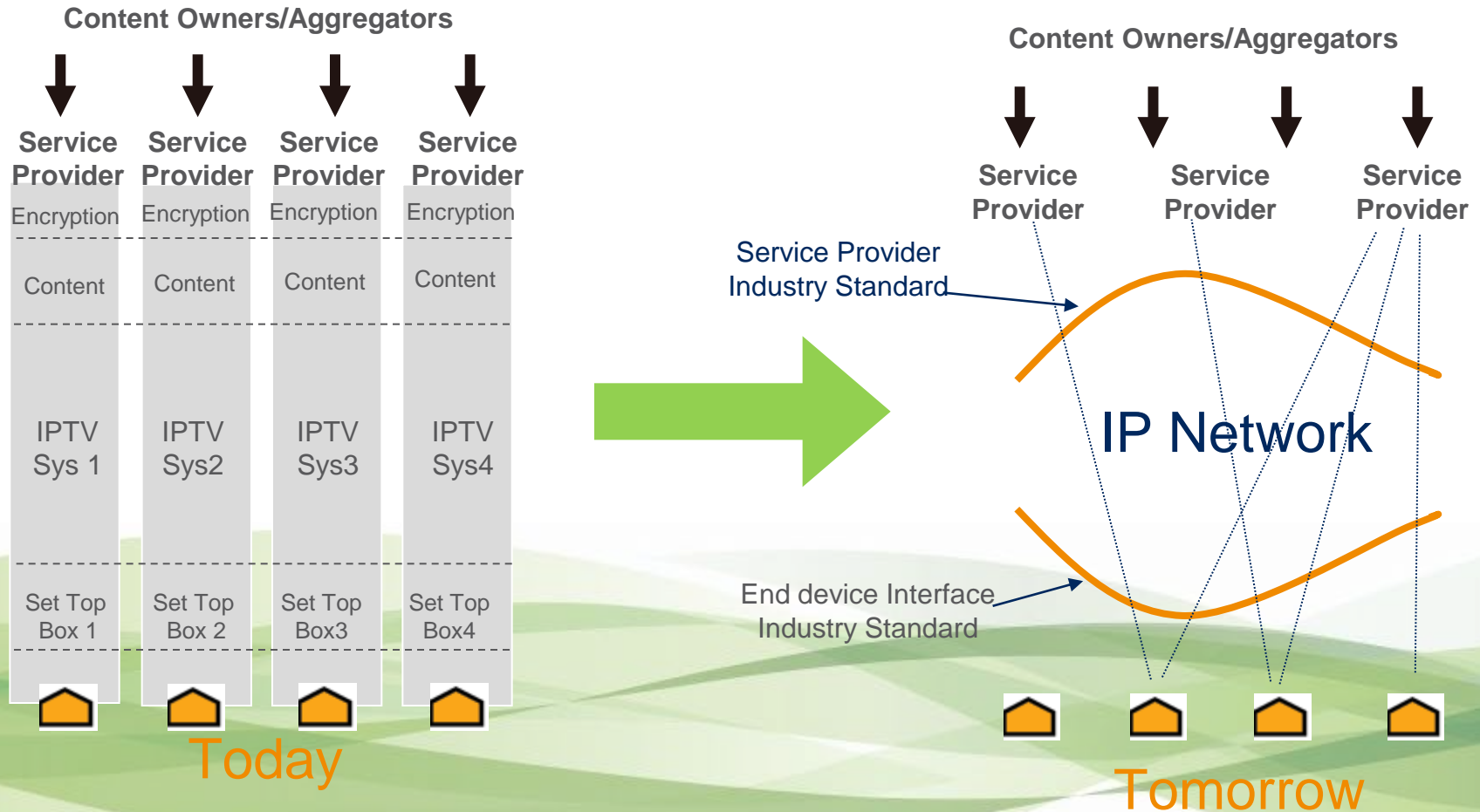
Nilo Mitra, Ericsson
President, Open IPTV Forum

Why Open Standards for IPTV?

- ❑ Mobile industry is perhaps the strongest example of how standards have grown everyone's business
- ❑ Need for a similar ecosystem of media consumption devices and services that bring value to both consumers and service providers
- ❑ Consumer benefits from open standards-based solutions
 - Avoid consumer lock-ins towards "incumbent" service providers
 - Reduce or remove switching costs when changing service providers
- ❑ Service provider benefits from open standards-based solutions
 - Avoid single vendor lock-ins, development and maintenance cycles
 - Reduce CAPEX, OPEX through **certified retail products** and wider equipment procurement base
 - Innovate at the service and user experience level relying on the reuse of common standard platforms and technologies

Retail vision

Removing barriers and lock-in



OIPF in brief

- ❑ Global industry consortium with (currently 47) members including most major TV manufacturers, STB vendors, Tier 1 telcos, and technology providers
- ❑ Formed in 2007 to create a standards-based horizontal (retail) market for connected TVs to serve both managed (IPTV) and unmanaged (OTT) services
- ❑ Reuse of its specifications (especially the "browser") by the HbbTV Consortium has created the first instance of this standards based horizontal (retail) market
 - Reuse by other regional standards (Japan Cable Labs, UK DTG, ATSC,...) makes this the common platform for connected TVs worldwide
- ❑ Creating a test suite, in cooperation with the HbbTV Consortium, for high priority test cases for both hybrid broadcast-broadband and managed scenarios
- ❑ Ongoing work on additional media formats, enhancements to the DAE, STB-less IPTV etc.
- ❑ Specifications on fast track towards International Standards via IEC

The Current Connected TV Landscape

Manufacturer's portal

- Online content offering built into TV



Sony
Entertainment
Network

Content on the web

- Popular UGC web-sites
- Access facilitated on CE device platforms



Broadcaster catch-up TV

- Dedicated PC app, ported to CE device platforms



Video-on-demand

- Dedicated app ported to CE device platforms
- End-to-end protection and control



ONE WORD: FRAGMENTATION

ANGA: Smart TV will die without standardisation, says ZON

Connected TV, News & Analysis
June 13, 2012 by John Moulding

"If the Smart TV world does not provide some standardisation, it will die." That was the warning from José Alberto Pascole, Head of Operations and Infrastructure Management at the Portuguese cable operator ZON Multimedia, speaking at ANGA Cable 2012 in Cologne. His company has developed an app for one model of LG connected TV but he complained that they have to develop an app again for a different model of LG television. Then if you want to have an app on Samsung Smart TVs you have to repeat the process

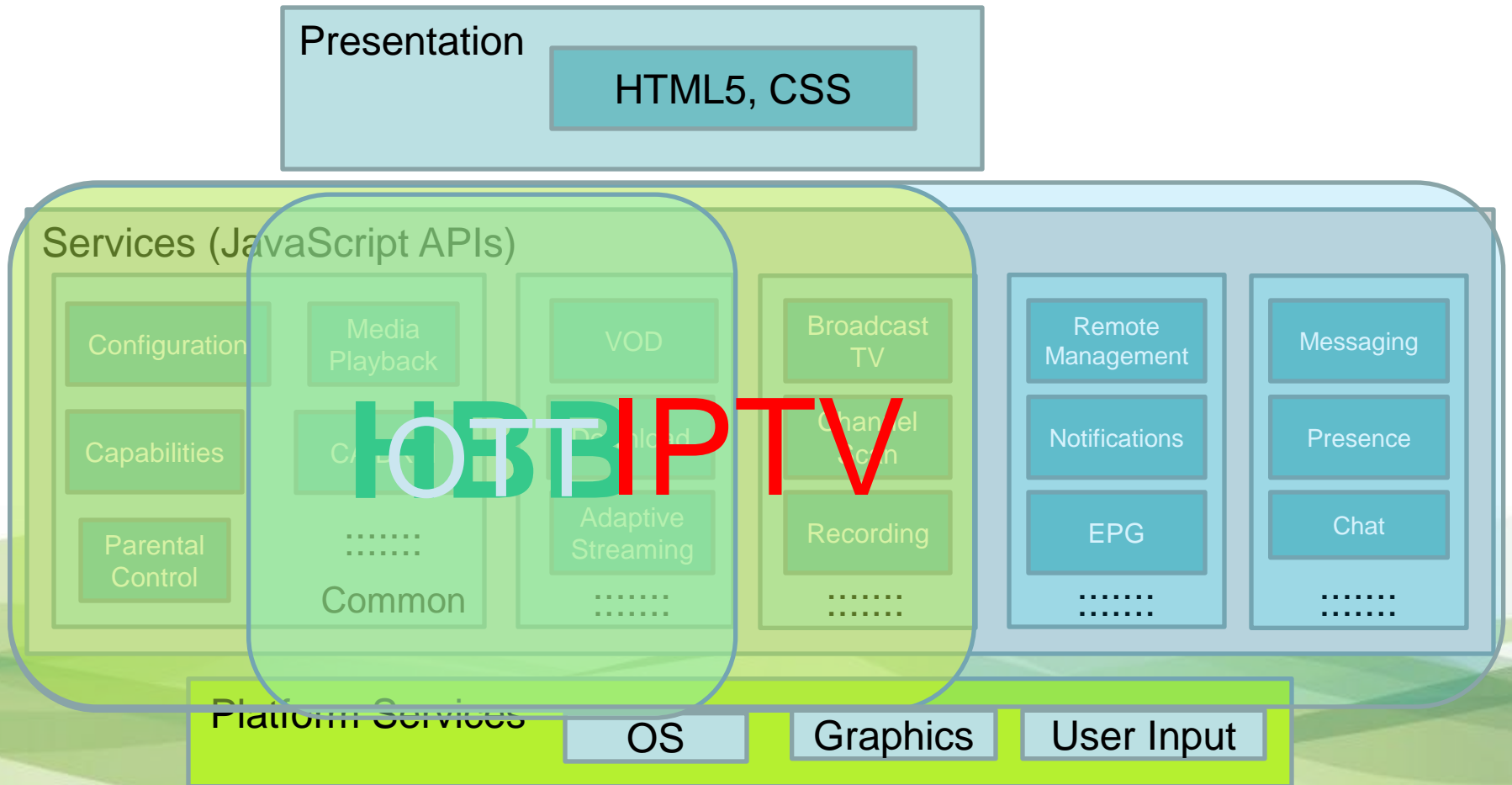


The LG Smart TV platform

Need for a Common Application Environment

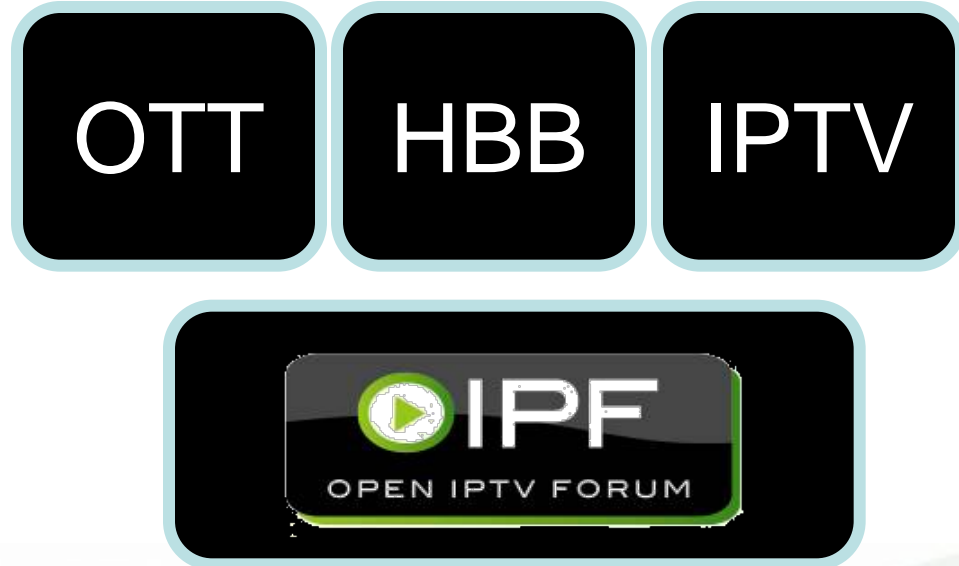
- ❑ Fragmentation problem: service providers and application developers must usually create different versions of their service for each manufacturer's device
- ❑ Need for an alternative approach to create a horizontal mass-market connected device "IPTV" ecosystem – the browser-based client
 - No time or resource consuming updates of terminals
 - Retain service provider look and feel and up-to-date service state
 - Develop services/portal once, deploy across many
 - Industry standards allow shared code base across many devices
 - Allow access to native functionality
- ❑ Services and applications can be developed once but deployed to any device that implements this horizontal platform
- ❑ The OIPF DAE - A single platform to serve all three markets – OTT, HBB and IPTV

The "OIPF" browser environment



OIPF DAE – A single platform for three deployments

- ❑ A single platform capable of serving three models
- ❑ Boundary between these delivery models is blurring
- ❑ Don't let technology choices recreate such boundaries
- ❑ Built into all connected TVs for HBB and OTT
- ❑ Need to build on this base for managed IPTV deployments



OIPF Web Standards TV Profile

- A selection from W3C specifications that are stable and expected to be supported in connected TVs
 - Presentation aspects of HTML5, Canvas 2D, CSS3 (Fonts, Animations, Transitions), Server Sent Events, Web Sockets, Web Storage

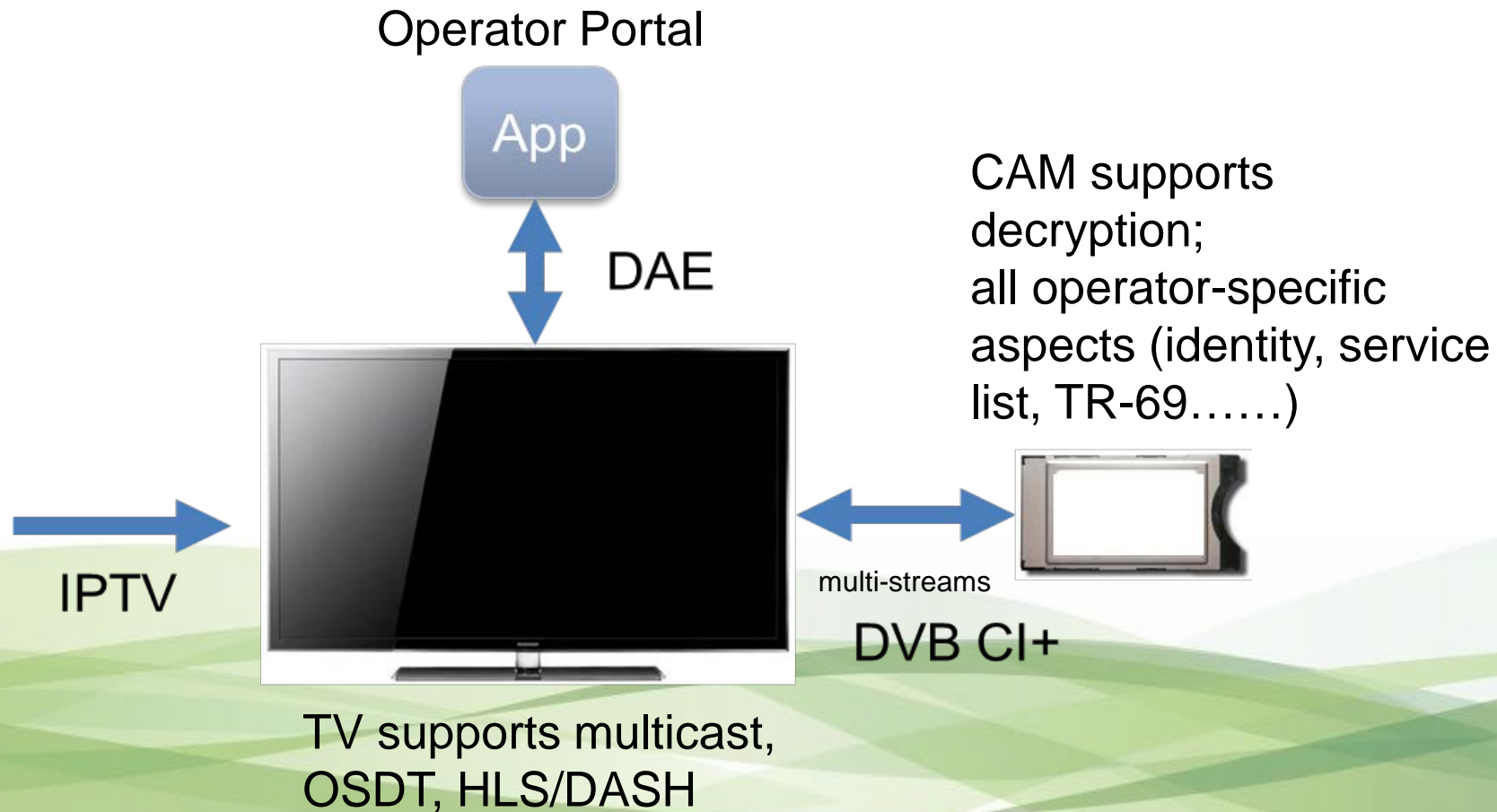
- Selection based on acknowledged support in the browsers most commonly supported on TVs

- Selection based on stability and completeness of W3C specifications
 - No support for the HTML5 <video> for broadcast channels; broadcast TV playback functions supported by OIPF APIs as no W3C APIs of the right functionality exist yet

- Download from www.oipf.tv -> Specifications

New OIPF Feature Package

STB-less IPTV



In summary, open standards...

- ❑ ...have provided a rich and vibrant ecosystem in many areas (e.g., GSM)
- ❑ is the foundation for the mass-market success of connected TVs and apps
- ❑ ...is essential for the OTT, Hybrid Broadcast, and IPTV markets to develop to their full potential
- ❑ ...provides a platform for more viable innovation – innovate with content, services and applications, rather than with the platform itself!
- ❑ ...allows for modular and controlled deviations to support national and regional deployment specifications
- ❑ **...enables freedom of choice for players at all points in the ecosystem, including, most importantly, the consumer!**



Connecting TV to the Future

**Get Connected:
contact@oipf.tv**

