Connected TV Standardisation in the UK

Steve Morris, HTML Working Group Chair, UK Digital TV Group

2nd W3C Web and TV Workshop, Fraunhofer-FOKUS, Berlin | 8-9th February 2011

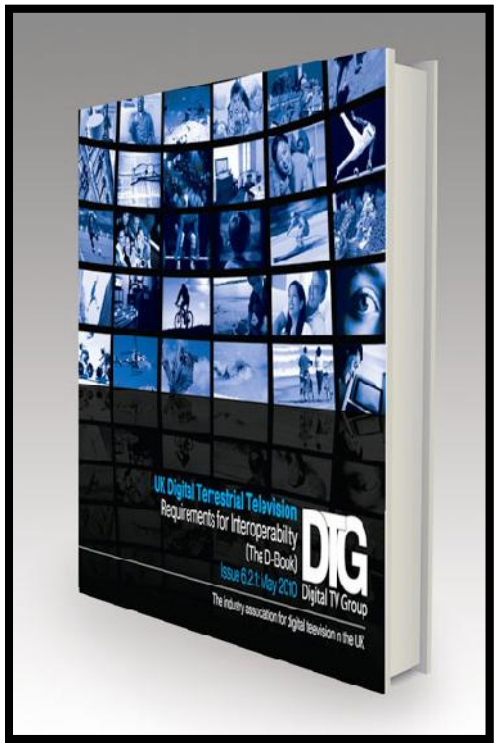
About the DTG

Independent industry body responsible for the technical development of UK digital terrestrial TV

- 155 member organisations
- Covers the entire value chain

Publishes and maintains the D-Book; the technical specification for digital terrestrial television (Freeview)

- Based on open industry standards
- Updated annually



digital Freeview Freeview + Freeview HD Freeview +HD

DTG Connected TV programme

Developing technical specification for UK Connected TV products and services

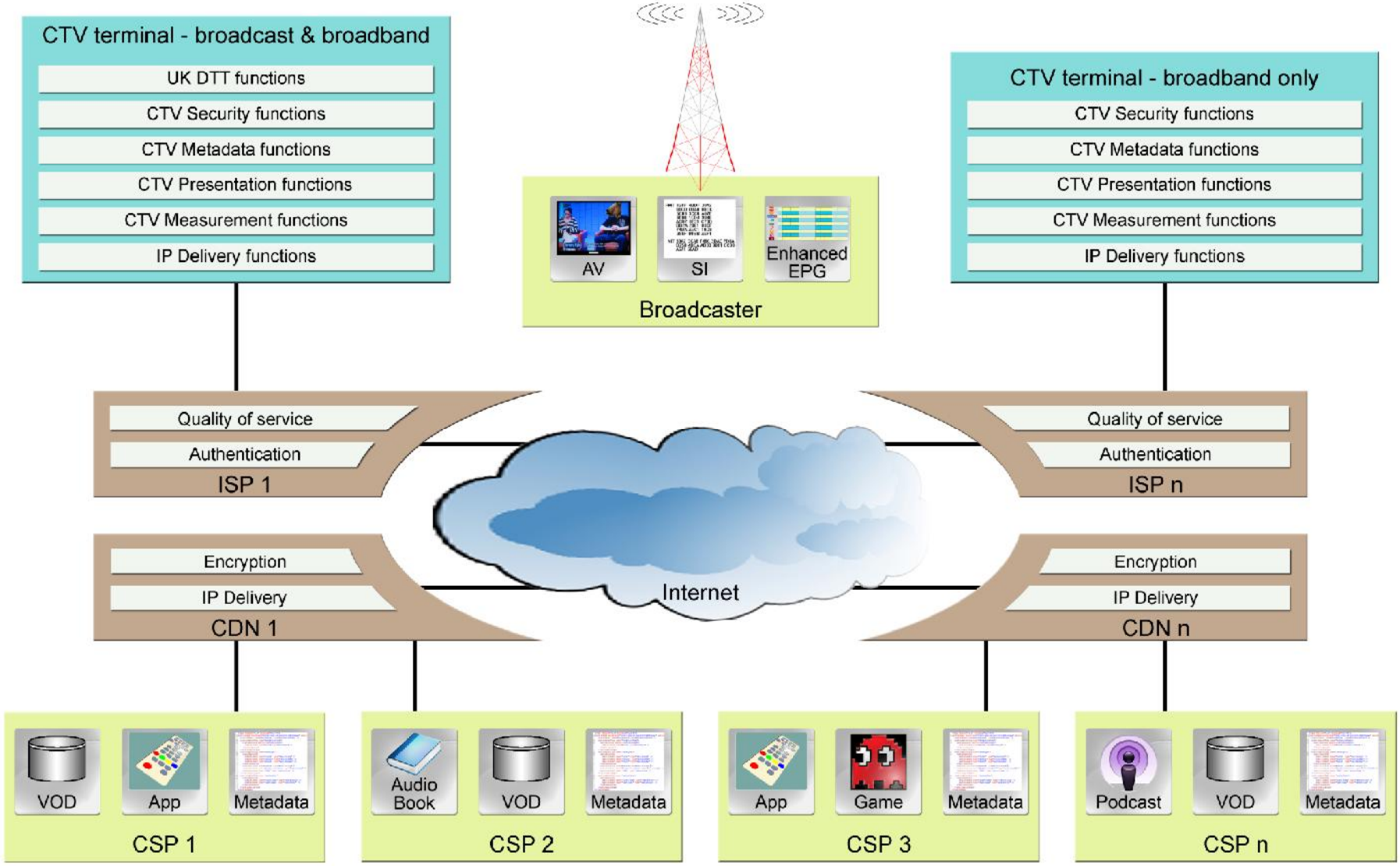
- Part A - the broadcast specification
- Part B - the hybrid Connected TV specification
- 7 DTG working groups responsible for defining part B

D-Book 7 will offer core specification for service providers to build trademarks on

D-Book 7 circulated December 2010

DTG Connected TV test service launching May 2011

DTG Connected TV ecosystem



The HTML working group

Defining a specification for HTML-based Connected TV applications

Key challenges:

- A specification that makes it easy to deploy receivers and applications
- Coexistence with existing Freeview standards
- A step-change in user experience over those existing standards
- A specification that other bodies can use as a foundation

The CTV HTML application specification

HbbTV specification used as baseline

- A profile of OIPF already enjoying traction among receiver manufacturers

Adds the following extra features from OIPF:

- Support for multiple applications
- HTML5 video element for Web compatibility
- Delivery of linear services over IP & adaptive streaming
- Series recording using TV-Anytime metadata
- Additional metadata for recordings, downloads and EPG data
- Metadata searching for recordings, downloads and EPG data
- DRM status notification & discovery

The CTV HTML application specification

CTV adds several features that are not defined in OIPF or HbbTV to meet requirements for the UK market

HTML5 and CSS3 features for richer graphical capabilities

- HTML5 canvas element (subset)
- CSS3 2D Transformations & Transitions modules (subset)
- Subsets based on performance on today's digital TV silicon

Notification API based on W3C

Additional ECMAScript APIs for DTG-specific metadata

Application lifecycle & coexistence with MHEG

Connected TV challenges & opportunities

Core common technical specification

Unified user experience

Content format & protection

Video quality

Adaptive bit rate streaming

More choice for consumers

Rich user experience

Social network integration

Targeted advertising

Improved audience measurement

Local TV investment

Co-operation with other bodies

Core common technical specification is a key challenge

Partly addressed through choice of technologies

- Don’t re-invent the wheel, unless you have to

Testing is key

- Not just common technologies, but common conformance & interoperability tests
- Save money and time – both developing tests and implementing products
- DTG is working with other standards bodies to progress this

Thank you

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