

# Connected TV in the UK

**Simon Gauntlett, Technology Director, Digital TV Group explains how its UK industry partners are working to meet the challenges of making the 'connected' home a reality for the consumer.**



The Digital TV Group (DTG), the industry association for digital TV in the UK, publish and maintain the D-Book – the detailed technical specification for UK digital terrestrial television (Freeview) and run the UK's only ISO/IEC17025 compliant test centre. DTG Testing provides the benchmark test and conformance services for the UK's Digital Tick certification mark, the UK's DTT platform - Freeview, the free-to-air satellite platform - Freesat, and international platforms.

When the DTG published D-Book 6 in March 2009 it contained the specification, not only for HD services on the Freeview platform but for a broadband return channel – enabled by an internet connection mandated on all receivers - paving the way for richer interaction and for content to be streamed to Freeview HD receivers. Freesat became the first non-subscription service to launch catch-up TV when it made iPlayer available in beta through Freesat HD in January 2010. The introduction of iPlayer on Freeview is inevitable and with all Freeview HD devices containing an Ethernet port the options for internet-type services for UK consumers are endless. Connected TV is the next step for hybrid internet television. A European initiative, HbbTV, has been created based on existing standards and web technologies including OIPF (Open IPTV Forum), CEA, DVB and W3C. This provides some European countries with an interactive standard for the first time but is not significantly more than the UK's MHEG standard and interaction channel. The DTG is working towards creating a standard profile for Connected TV devices and services utilising the latest technologies.

D-Book 7 will contain the UK interoperability profile for Connected TV products and services, providing an industry agreed baseline implementation that Canvas (the

proposed UK HBB joint venture partnership between BBC, ITV, Channel 4, Five, BT, Arqiva and Talk Talk), Sky and others can build on for trademark requirements to support their services. This enables the horizontal market to deliver products with access to services and options to support further services such as catch-up TV and social networking if they wish.

The DTG has set itself the ambitious but achievable target of the publication of D-Book 7 by December 2010. To meet this target we are currently working with the teams behind services such as Canvas, the UK Video-on-Demand service SeeSaw, Sky Player and ITV Player, as well as our wider membership of broadcasters, network operators, manufacturers and ISPs to define the specification for Connected TV. The DTG has set up eight Connected TV working groups drawing upon different areas of the specification: architecture, device, delivery, presentation, metadata, security and measurement, and consisting of key industry experts in the field to drive the rapid deployment of universal Connected TV receivers.

An updated version of the current D-Book - D-Book 6.2 was published in March and introduces two new features that will help to move the Freeview HD platform towards Connected TV. The first is support of MHEG xPlayer - the ability to deliver catch-up TV to

Freeview HD receivers through the network connection built into the set-top box.

Content is delivered using industry standard protocols H.264/HE-AAC in MPEG-2 SPTS over an HTTP progressive download connection. The content can be optionally encrypted using AES-128, using the same algorithm as specified by the Open IPTV Forum. Reusing existing standards this way enables content providers to distribute one format to a number of platforms, including Connected TV devices in the future.

The D-Book provides the tools required for an MHEG based catch-up service to identify a viewer's geographical location by broadcast region, enabling regional targeted advertising through stream playlists as well as personal preference-driven promotion.

The second new feature is the delivery of record lists. This uses technology similar to series linking to give the viewer the ability to subscribe to broadcaster defined groups of content such as 'Best of Comedy'. It also provides a mechanism for broadcasters to use off-schedule capacity to deliver extra content such as more HD programming. Services are driven by broadcast metadata based on the schema developed for TV Anytime.

The increasing prevalence of hybrid devices will undoubtedly drive demand for catch-up and VoD services on living room TVs. The DTG recently conducted a survey with YouGov that found 80% of viewers who can't already do so would like to be able to watch on-demand programmes on their home TV.

The UK digital television industry is constantly evolving – the DTG is committed to working with our members and industry to meet the challenges these new technologies bring and to make the connected home a reality for UK consumers.



Simon Gauntlett

