

Digital TV Group (DTG) response to the BBC Trust consultation on “Project Canvas”

Executive Summary

Following the publication of the BBC Trust’s consultation on an application from the BBC Executive to define and promote an IP television standard ('Project Canvas'), the Digital TV Group (DTG), the industry association for digital television in the UK, invited feedback from its membership on the proposal¹.

There was clear support from DTG Members for the Canvas project’s objective of universal deployment of IP to the TV and recognition of the vision and technical leadership of the BBC’s iPlayer service. (D-Book 6 mandates broadband network connectivity on all Freeview HD receivers – see page 5.) The DTG and its members are excited about the delivery of IP catch-up TV services and wish to expedite their introduction as fairly and systematically as possible.

The DTG agrees with:

- TV content delivered by live streaming or non-realtime download
- Using both “over the top” and “closed or managed system” architectures delivered by industry-agreed open standards

Concerns:

The majority of DTG members who responded voiced high level concerns over the proposal put forward by the Canvas project. These fell broadly into three categories:

- Despite widespread BBC consultation there are still concerns regarding the process the project has taken to engage with the industry
- The DTG’s membership is confused over the detailed proposition and precise project definition and specification
 - It is still unclear whether Canvas is a platform, service, user interface or receiver specification.
 - The project’s relationship with Freeview HD is unclear (distinction and/or harmonisation on technical and commercial requirements, and launch timing)
- The remit under which the Trust is considering the Canvas project: The industry seeks clarification on why Canvas is considered an upgrade to the Freeview and Freesat platforms and not a service launch in its own right

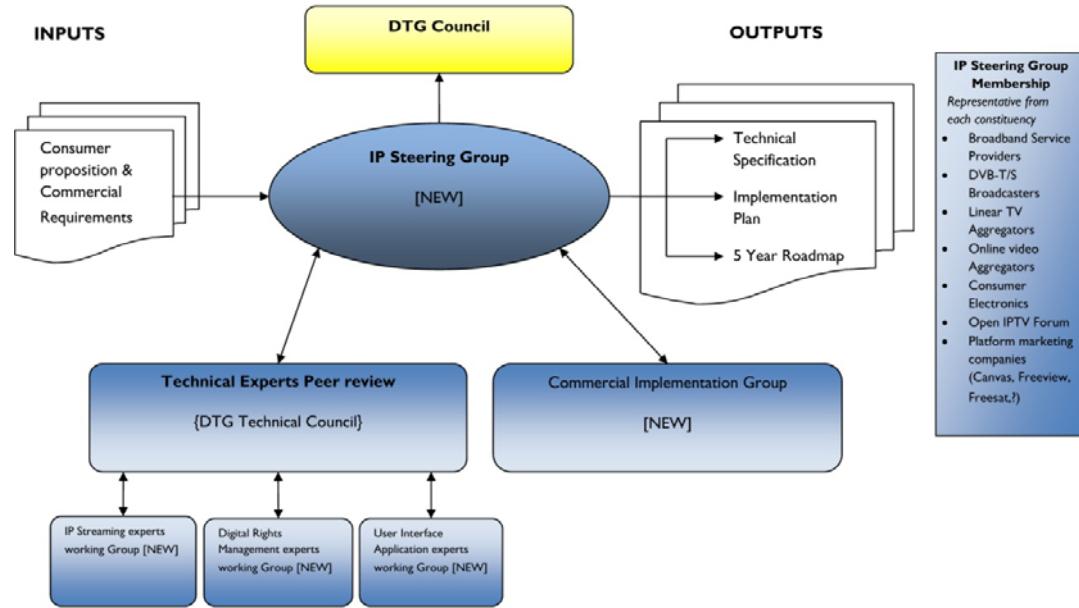
Feedback the DTG has received from its membership suggests that the BBC will not derive sufficient value from the current approach, which is unlikely to be adopted universally by manufacturers and would therefore cause market fragmentation: this puts

¹ DTG members who are directly involved in the Canvas project were invited to provide feedback to the Group on this consultation but understandably declined, citing a conflict of interest.

at risk the quality of consumer experience and would ultimately limit the platform's reach.

Proposal:

The DTG proposes supporting the Canvas project and the wider objective of universal deployment of IP to the TV by securing an industry consensus for universal receiver deployment through proven industry mechanisms (See below):



Process:

The DTG proposes to support the PSB's objectives by securing industry-wide consensus for universal receiver deployment with:

- A proven structure to transition the project to the wider industry
 - A published, open specification (D-Book 7)
 - A high integrity receiver conformance regime
 - Future proofing through a published five year roadmap
 - Management of market impact to protect the launch of Freeview HD and the completion of digital switchover
 - A rapid roll-out of compliant receivers that meet the rigorous requirements of the DTG test regime

Next steps:

DTG Council reinforcement

- DTG Council already includes BT Vision, BBC, ITV, Freeview and Freesat along with a balanced mix of manufacturers and technology companies
- The DTG will further strengthen Council by adding additional ISP / global multimedia companies relevant to the project

IPTV Steering Group

- The DTG proposes using proven industry mechanisms to drive the rapid deployment of universal IPTV receivers via a cross-industry IPTV Steering Group, supported by technical and commercial industry expert groups.

About the DTG

The Digital TV Group (DTG) is the industry association for digital television in the UK and is independent and platform neutral.

Formed over a decade ago to facilitate the introduction of digital terrestrial TV in the UK, the Group remains at the centre of UK digital TV development. It publishes and maintains the DTG 'D-Book', which sets out the detailed technical standards for digital terrestrial television in the UK, and runs the industry's test and conformance centre: DTG Testing. The DTG has ensured the delivery of a rich, consistent consumer experience, a vibrant and stable market and has helped position the UK as a world leader in the evolution of television.

The Group has recently completed the 6th edition of the D-Book, which includes the specification for the introduction of high-definition services on Freeview (Using DVB-T2) and delivered support for IP services via the interaction channel.

In the past twelve months the Group has significantly strengthened its test and conformance team, following a recent move to new offices in central London - unifying staff from the DTG and DTG Testing on a single site and creating a more co-operative and dynamic working environment. A newly-appointed Head of Technology Development oversees technical architecture and project management to ensure delivery to specification, deadline and budget, while the addition of new project and test and conformance engineers and a significant streamlining of internal processes has ensured the Group is well placed to meet the needs of industry.

In 2009, DTG Testing will move towards accreditation as an ISO/IEC 17025 compliant test facility with a robust, transparent quality management system, comprising policies, record keeping and controls, overseen by a director with quality management accountabilities.

A key project for 2009 will be the delivery of the test and conformance regime for the Freeview HD services enabled by D-Book 6. Testing against D-Book 6 will mark a step change in market compliance. The DTG can now utilise eight years of test suite development and testing experience as a foundation to ensure that Freeview HD receivers meet the levels of compliance achieved previously only on vertical or lower volume proprietary standard platforms.

In Spring 2009 the Group appointed David Docherty as Chairman.

Context

The DTG's membership of over 120 organisations is drawn from broadcasters, manufacturers, platform operators, retailers, trade bodies, charities (including interest groups such as RNIB, RNID and Age Concern) and consumer groups.

The DTG has received a high volume of feedback from its membership on the BBC Executive's proposal for 'Project Canvas.'

It is clear the industry is optimistic about the potential for IP to the TV and shares the Canvas project's vision of universal deployment of IPTV services in the UK. The DTG, on behalf of its membership, has already taken significant steps to support and develop the proposition. BBC executives from the Canvas team have presented to the DTG's general membership at the Group's Annual Summit, to the DTG's governing Council, to the Group's HD Forum and in ongoing discussions with the DTG Chairman and Executive Directors.

D-Book 6: High Definition and Broadband TV on Freeview

The DTG has recently completed the 6th edition of the D-Book, the detailed interoperability specification for the Freeview platform, which manufacturers must follow in order to use the Freeview, Freeview+, Freeview HD and Digital Tick logos in the UK. The D-Book is compiled by expert working groups comprised of senior engineers from the DTG's membership.

D-Book 6, which includes the specification for the introduction of high-definition services on Freeview (using DVB-T2), mandates broadband network connectivity on all Freeview HD receivers – based on mature and proven MHEG technology - which has the potential to enable the delivery of broadband television services such as 4oD, ITVPlayer and iPlayer to future Freeview receivers. This technology will be incorporated into Freeview HD receivers which will be available to consumers in some areas of the UK by late 2009.

Freeview HD receivers will be able to handle a range of applications designed for viewing on a TV screen, using a remote control rather than a keyboard / mouse to navigate and interact. These applications could potentially include appointment booking systems, news and information services, and (with suitable security) online shopping. This technology is directly in line with that already deployed on Freesat products.

The D-Book does not currently specify the look and feel of receivers' user interfaces such as electronic programme guides (EPGs), however certain usability and presentation guidelines are permitted, allowing manufacturers and service providers to differentiate their offerings.

D-Book 6 does, however, enable a unified user interface to IP on the TV content through a broadcast application run by the receiver using an open standards middleware application interface (API), i.e. MHEG.

The DTG is willing to consult its membership, and the wider industry, on the unification or standardisation of the Canvas EPG and remote control.

Open Standards

Feedback the DTG has received indicates that there is concern among the DTG's members that Project Canvas appears to represent a shift from the international open standards approach of Freeview and Freesat. This proven model has driven sales of over 40 million receivers to over 70% of UK homes and fundamentally underpins digital switchover.

The Canvas project is described in the consultation document as a 'standards based open environment', however feedback the DTG has received from our membership suggests

that the Canvas specification has not been developed in conjunction with industry and that the draft specification has not been made widely available to manufacturers for consultation or information.

There is concern from manufacturers that any move away from true open standards puts the UK digital television industry at risk in an already challenging market and economic climate. Manufacturers have indicated that they need to sell high volumes of receivers in a challenging market and, in the absence of universal access to high-speed broadband services, Canvas could become an expensive R&D investment for limited return, or could fragment the market. Retailers and service providers could be potentially disadvantaged in global procurement exercises when attempting to source receivers from the existing supply chain.

Project Canvas, Freeview and Freesat

The DTG's membership is extremely positive about the success of the Freeview and Freesat platforms. Freeview has now been through two product phases (initial receivers and Freeview+) and is now moving towards the launch of HD receivers – keeping parity with the Freesat platform. There is concern that there is a lack of clarity over how the Canvas Project would integrate with these platforms. The launch of Freeview HD is imminent and it is essential that the consumer continues to be offered the same simple high-quality free-to-air service that has built the success of Freeview and Freesat.

DTG members voiced concerns that the simplicity of the Freeview / Freesat offering of "pay-once-watch-forever" is compromised by Canvas. In order to take advantage of Canvas, viewers will be forced to become customers of a broadband service provider. Additionally, viewers will have to make decisions based on bandwidth, data caps and penalties for exceeding ISP's contractual or 'fair usage' terms.

The rapidly increasing load of music and video content on the Internet is already highlighting limitations of the UK broadband networks, which were designed and provisioned primarily for web and email-based applications. The Canvas proposal is based on ISP's advertised broadband speeds, however, research conducted for Ofcom² earlier this year concluded that most consumers receive on average just 45% of the advertised headline speed. DTG members have voiced concerns that consumer complaints regarding picture quality and box failure (and associated damage to brand reputation) will be directed at receiver manufacturers rather than ISPs or broadcasters.

Project Canvas: The Role of the DTG

The DTG exists to work with platforms, manufacturers and other key stakeholders to define detailed implementation and test specifications / regimes to measure conformance against brand requirements in order to protect consumers and safeguard the reputation of distribution platforms and receiver manufacturers.

The detailed feedback we have received from our membership suggests that there is widespread support for the DTG to play an integral part in writing and maintaining the specification for a truly open IPTV standard - as the Group continues to do successfully for the Freeview platform.

² <http://www.ofcom.org.uk/media/features/brspeeds>

The Freeview ‘model’ whereby a service provider defines their proposition, the industry works collaboratively to define a detailed interoperability standard, which manufacturers use as a framework to develop compliant products has successfully created a mature structure to develop compliant products. Freeview HD products will achieve an unprecedented level of compliance and equipment manufacturers can find no reason why a change to this system would add value. The DTG has drafted a proposed process for how the successful Freeview model can be applied to the Canvas project [**See Appendix**].

There was clear support from DTG Members for the Canvas project’s objective of universal deployment of IP to the TV:

The DTG Agrees with:

- TV content delivered by live streaming or non-realtime download
- Using both “over the top” and “closed or managed system” architectures delivered by industry-agreed open standards

Concerns:

A number of DTG members voiced high level concern over the proposal put forward by the Canvas project. These concerns fell broadly into three categories:

- Despite widespread BBC consultation there are still concerns regarding the process the project has taken to engage with the industry
- The DTG’s membership is confused over the detailed proposition and precise project definition and specification
 - It is still unclear whether Canvas is a platform, service, user interface or receiver specification
 - The project’s relationship with Freeview HD is unclear (distinction and/or harmonisation on technical and commercial requirements, and launch timing)
- The remit under which the Trust is considering the Canvas project: The DTG’s membership seeks clarification on why Canvas is considered an upgrade to the Freeview and Freesat platforms and not a service launch in its own right

Feedback the DTG has received from its membership suggests that the BBC will not derive sufficient value from the current approach, which is unlikely to be adopted universally by manufacturers and would therefore cause market fragmentation: this puts at risk the quality of consumer experience and would ultimately limit the platform’s reach.

Proposal:

The DTG proposes supporting the Canvas project and the wider objective of universal deployment of IP to the TV by securing an industry consensus for universal receiver deployment through proven industry mechanisms [**See Appendix**].

Process:

The DTG proposes to support the PSB's objectives by securing industry-wide consensus for universal receiver deployment with:

- A proven structure to transition the project to the wider industry
- A published, open specification (D-Book 7)
- A high integrity receiver conformance regime
- Future proofing through a published five year roadmap
- Management of market impact to protect the launch of Freeview HD and the completion of digital switchover
- A rapid roll-out of compliant receivers that meet the rigorous requirements of the DTG test regime

Next steps:

DTG Council reinforcement

- DTG Council already includes BT Vision, BBC, ITV, Freeview and Freesat along with a balanced mix of manufacturers and technology companies
- The DTG will further strengthen Council, by adding additional ISP / global multimedia companies relevant to the project

IPTV Steering Group

The DTG proposes using proven industry mechanisms to drive the rapid deployment of universal IPTV receivers via a cross industry IPTV steering Group, supported by technical and commercial industry expert groups.

Areas the Trust may wish to consider further

Broadband

- Given the constraints of UK broadband networks and the fragmented throughputs, could Canvas easily replicate the success of the Freeview and Freesat platforms?
- Does the Canvas proposition mark a significant shift from free-to-air PSB content by mandating the requirement for a broadband subscription?

Industry Collaboration and Open Standards

- The success of the Freeview platform has been built on a collaborative model, with a small number of broadcasters defining a service offering and the industry working together, through the DTG, to define an interoperability specification and testing / conformance facilities. To support truly open standards it may now be desirable for a wider constituency of stakeholders to contribute to the Canvas specification.
- Does the Canvas project represent a shift away from the international open standards body approach of the Freeview and Freesat platforms?

Existing Platforms and Devices

- How does the Canvas service co-exist with the current Freeview and Freesat platforms? In particular, and following the Trust's approval of the BBC HD Channel on behalf of licence payers, the industry has expected this channel to be made available via Freeview as soon as possible. Similarly, given the current requirements from the PSBs for Freeview HD+ (Digital HD TV Recorders) products to include PushVOD functionality it is unclear how this can successfully co-exist with the Canvas proposition's market impact.
- Is there potential for the Canvas project to delay or impact upon the roll-out of high-definition services on the Freeview platform - potentially delaying a service launch of Freeview HD until after the 2010 World Cup?
- Will the Canvas service be compatible with existing devices supporting iPlayer, such as mobile handsets, games consoles, and existing broadband-enabled set-top boxes, and does this fall within the remit of the project?
- With manufacturers already rolling out broadband-enabled receivers and a broadband connection mandated for future Freeview HD receivers, does Canvas create potential for consumer confusion?

Content and Navigation

- Does Canvas provide scope for manufacturers to differentiate the look and feel of user interfaces such as EPGs?
- In an IP video environment, will Canvas support the discovery of new services, or is the intention to create a closed environment in which service providers are required to pay for an 'EPG'-type listing?
- Will Canvas impose limits on the number and type of services available?

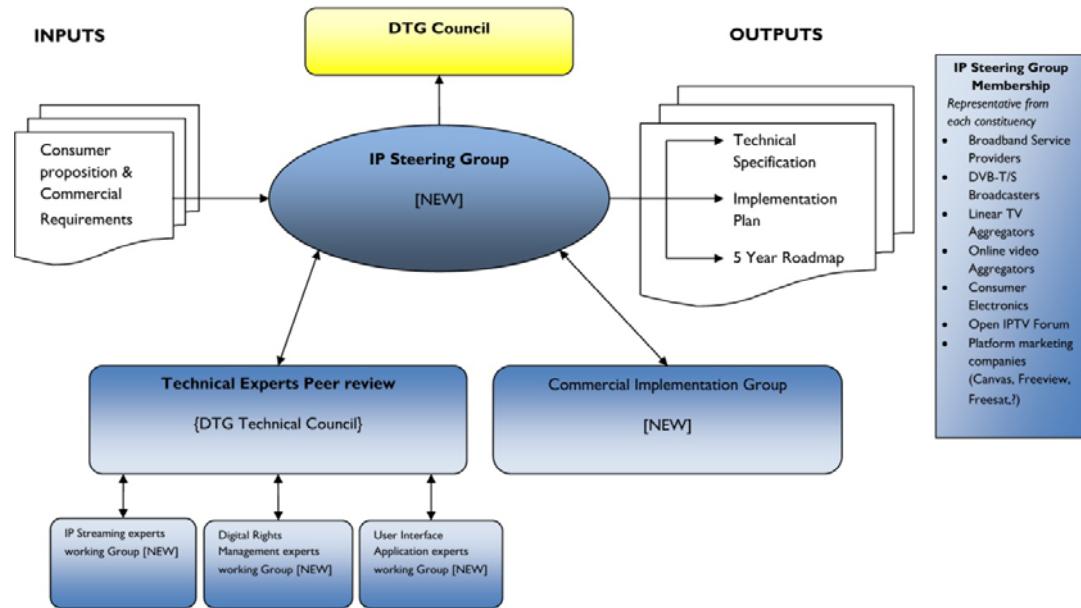
Conditional Access and DRM

- How does the Canvas proposition both future-proof and ensure open and equitable inclusion of key components in support of presentation, digital rights management / content protection / conditional access?

Accessibility

- The broadband channel currently mandated by the D-book has the potential to be deployed on new standard definition receivers, such as those used by the Switchover Help Scheme. How do we ensure usability and accessibility provisions are implemented by Canvas?

Appendix: Project Canvas: Proposed Collaborative Industry Process



Definitions:

Consumer Proposition	<ul style="list-style-type: none"> • Detailed description of the consumer service offering • Includes all desired types of service, user interface, level of interaction
Commercial Requirements	<ul style="list-style-type: none"> • Market need and impact assessment • Minimised impact on receiver cost • Scale of audience
Technical Specification	<ul style="list-style-type: none"> • Technical requirements to meet service needs • Detailed specification for each technical area • Service provider requirements and constraints • Minimum receiver specification • Interoperability guidelines • Definition of interaction with broadcast services
Implementation Plan	<ul style="list-style-type: none"> • Clear timelines for specification, product development, test and conformance and service launch
5 Year Roadmap	<ul style="list-style-type: none"> • Predictions on service growth and take-up • New technology developments and introductions

Terms of Reference:

DTG Council	<ul style="list-style-type: none"> • Provide industry overview and input into steering group
IP Steering Group	<ul style="list-style-type: none"> • Ensure Technical and Commercial groups deliver outputs on time • Resolve issues raised by the group • Report to Council on progress
Commercial	<ul style="list-style-type: none"> • Peer review consumer proposition, commercial requirements

Implementation Group	<ul style="list-style-type: none"> • Incorporate technical specification requirements • Develop implementation plan for the service proposition • Publish 5 year roadmap for the platform
Technical Council	<ul style="list-style-type: none"> • Set up appropriate expert sub-groups • Peer review the output technical specification • Peer review potential impact on other technical areas • Propose complete technical specification
Expert Working Groups	<ul style="list-style-type: none"> • Established as required • World-class industry technical experts • Discuss and peer review the technical solutions to the commercial requirement and consumer proposition • Deliver detailed technical specification