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# **GEM EXTENDED FOR HYBRID SERVICES**

## **Extension Enables The Synchronisation Of Services Over Different Networks To Support Advanced Hybrid Scenarios**

**Geneva – 01 November 2010** – The DVB Steering Board has approved an extension to GEM (Globally Executable MHP) that will enable the synchronisation of services over different networks to support advanced hybrid scenarios.

GEM enables the creation of interoperable TV applications that run on various digital TV devices such as terrestrial, satellite and cable set-top boxes, IPTV terminals and gateways, and Blu-ray players. The fact that GEM is essentially network independent makes it particularly useful in IPTV and hybrid broadcast/broadband environments.

In recent years, televisions and set-top boxes having more than one tuner have come to the market and hybrid broadcast/broadband TV sets are gaining a growing market share. GEM and GEM-based terminal middleware specifications have been successfully deployed into hybrid markets and already address a broad spectrum of use-cases.

While the GEM specification already supports multi-tuner and multi-network devices, the extension is aimed at facilitating new use cases that require synchronisation of media streams into a common service presentation.

Peter Siebert, Executive Director, DVB commented, “With good access to Internet services, low data rate requirements for video, flat panel displays and powerful inexpensive chipsets, the time is now right for hybrid broadcast/broadband services. Because the user interface is different, existing HTML applications cannot be directly transferred to the TV screen. With this new extension, the multitasking and multi-application GEM environment is particularly suited to hybrid services”.

BlueBook A153 (GEM Media Synchronisation API) is available for downloading on the DVB website.

### **About**

**Digital Video Broadcasting (DVB)** is an industry-led consortium of over 250 broadcasters, manufacturers, network operators, software developers, regulatory bodies and others committed to designing global standards for the delivery of digital

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television and data services. DVB standards cover all aspects of digital television from transmission through interfacing, conditional access and interactivity for digital video, audio and data. The consortium came together in 1993 to create unity in the move towards global standardisation, interoperability and future proofing.

DVB dominates the digital broadcasting environment with thousands of broadcast services around the world using DVB's open standards. There are hundreds of manufacturers offering DVB compliant equipment. To date there are over half a billion DVB receivers deployed worldwide. DVB standards are also widely used for other non-broadcasting applications such as data on the move and high-bandwidth Internet over the air. Further information about DVB can be found at: [www.dvb.org](http://www.dvb.org), [www.dvb-h.org](http://www.dvb-h.org), [www.mhp.org](http://www.mhp.org) and [www.dvbworld.org](http://www.dvbworld.org).

**GEM (Globally Executable Multimedia Home Platform)** is the open middleware specification of the DVB that enables the deployment of interactive applications over broadcast and broadband networks as well as for Blu-ray discs. It is based on Java and offers a platform-independent application execution environment that is used to create interactive content for different devices and markets. Built on the widely used Java Micro Edition (JavaME) with additional APIs, the platform offers TV specific functionalities.

GEM is not restricted to specific broadcast signalling but defines an abstraction of concepts common to various TV systems and is even used for disc based content (Blu-ray). This common core is a set of APIs and semantic guarantees that is available in all GEM terminals. It is extended with APIs for target-specific markets that are called profiles. A number of organisations including CableLabs, the ATSC, ARIB and the Blu-ray Disc Association has adopted GEM. GEM is the ITU-T recommended middleware standard for interactive television.

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