The EchoStar Europe Interest in Participating in the W3C Workshop

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The primary business of EchoStar (both for both the US and Europe) is to produce “Set-top box” (STB) receiving equipment for broadcast and IP services and at present it is clear that the whole market continues to change and advance in terms of features required.

As the capabilities of the silicon have increased it has become possible to support more and more functionality in receiving devices, there has been increasing convergence of broadcast and IP services and the ability to share content between devices by home networking. From the point of view of delivery, service offering and content sharing, broadcasters, service providers and manufacturers all have an interest in these areas to meet the future service requirements. Also, several national and international Standards Development Organisations (SDOs) and broadcasters have actively been developing profiles based on existing standards so that devices compliant to those standards would offer a high degree of interoperability. For manufacturers the costs could be reduced and economies of scale made relative to the features added.

Echostar is active in some of those organisations and we have contributed to the groups as member, editor and chair in work done for both baseline and implementation specifications for broadcast, home network (DLNA based) and IP services. As an example, I chair the Metadata Group in the UK DTG on the Connected TV hybrid which was closely linked with the work on application presentation, specifying both XML and JavaScript metadata structures and mechanisms to provide a strong and consistent user experience.

Probably the most rapidly developing areas are around hybrid connected TV devices (STBs and integrated TVs) with the capability to receive Internet TV services where the application environment is a fundamental part of the device. However, the use of a browser based method of implementation for the customer facing UI has also become an important part of the solution, some example Use Cases are:

- A flexible solution for the internal interactive applications within the STB for local content description and device management
- The presentation of interactive applications delivered over the internet
- Remote UI methods from the device as a server
- The ability to address multiple types of screens with appropriate UI presentations.

In addition EchoStar has experience with:

- The growth of new regulatory requirements in multiple jurisdictions for accessible devices and applications means that development work for set top boxes and for HTML-5 solutions is converging.
- Ten years of actual experience with building broadcast systems, STBs, execution environments and UIs to enable interactive television features that are distinct from the traditional consumer electronics UI features.
- A systems view of several technology areas that will incorporate HTML-5 and other W3C methods to provide enhanced end-user capabilities. E.g. the Google TV integration with DISH http://www.dishnetwork.com/googletv/
- Development of MHEG for the previous retail devices and for the next generation UK retail products we need to consider the integration of legacy MHEG with the more recently deployed application technologies.

Several of the organisations working in this area are focussing on the work in W3C on HTML-5 at present as the solution for the application presentation environment, and the work in W3C does seem to be progressing towards a specification to support the requirements of a combined web and TV environment with an elegant solution for the user. Also DLNA are considering HTML-5 for some functionality to be included in the Implementation Guidelines.

We, at Echostar, are therefore interested in attending this workshop in order to strengthen and extend our knowledge and skills, with an overall aim of helping us to optimise the design work leading to our next generation offerings and to help enable interoperability features spanning multiple industries.