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Digital Living Network Alliance

17th April 2015

VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

**Re: VidiPath Cloud Extension
Commercial Availability of Navigation Devices, CS Docket No. 97-80;
DSTAC Docket No. 15-64**

Dear Ms. Dortch:

As it relates to the above titled docket item, Digital Living Network Alliance (“DLNA”) has periodically provided the Commission with notice of progress on DLNA Guidelines. This letter is to advise the Commission of the public availability of a new set of DLNA Guidelines referred to as “VidiPath Cloud Extensions.”

Background

DLNA was founded in 2003, and is comprised of more than 200 industry leading consumer electronics, personal computing, mobile device, MVPD and entertainment companies who share the common goal of creating products that are interoperable through the use of open standards and widely available industry specifications that are built on the foundation of the Internet Protocol (IP).¹ DLNA’s Promoter Members include: ARRIS, AwoX, Broadcom, CableLabs, Comcast, Dolby Laboratories, Intel, LG, Panasonic, Samsung, Sony, Time Warner Cable and Verizon. MVPDs AT&T, CenturyLink, Cablevision, Cox, DirectTV, and EchoStar are also members.

Standards Update

On 14 February 2014, we notified the Commission of the availability of the DLNA Premium Video Guidelines, also referred to as the CVP-2 Guidelines. We have since rebranded this family of specifications as “VidiPath.” Today we provide the Commission notice of public availability of new extensions to VidiPath that allow for cloud delivery of commercial video content to retail consumer electronics devices. The VidiPath Cloud Extensions include the following three W3C HTML5 extension specifications:

- W3C Encrypted Media Extensions (EME)
- W3C Media Source Extensions (MSE)

¹ See, <http://www.dlna.org/dlna-for-industry/our-organization/member-companies>

- W3C Web Cryptography APIs

As a reminder, the following are the key elements of original VidiPath specification that was released last year:

- HTML5-based Remote User Interface
- DTCP-IP Link Protection
- Device Authentication using DTCP-IP Certificate
- MPEG-2 TS and MPEG-DASH based media transport with trick mode support
- Diagnostics
- Low Power

The VidiPath Guidelines along with their cloud extensions are publicly available here: <http://www.dlna.org/dlna-for-industry/guidelines>. Similar to the original VidiPath specifications, DLNA is developing a certification program for VidiPath Cloud Extensions as well.

VidiPath Cloud Extensions provide a standards-based solution for cloud delivery of, commercial content to any retail device that supports DLNA VidiPath Cloud Extensions. The VidiPath Cloud Extensions can be added as software upgrade to VidiPath client implementations. Content is protected using DRM(s) that provide W3C EME specification compliant Content Decryption Module (CDM) implementation for a VidiPath client HTML5 Browser. Content is delivered using standards-based MPEG-Dynamic Adaptive Streaming over HTTP (MPEG-DASH) transport.

VidiPath Cloud Extensions are aligned with marketplace developments. Leading desktop browsers such as Google Chrome, Microsoft Internet Explorer 11, Apple Safari, and Mozilla FireFox, either already include support for these HTML5 extension specifications or have plans to include them in 2015²³⁴⁵. Additionally, these browsers either include or have plans to include EME compliant CDM implementations for specific commercial DRMs, e.g. Google Widevine in Chrome, Microsoft PlayReady in IE 11, Adobe Access in FireFox. Several over the top (OTT) content providers such as Netflix, YouTube are delivering content to desktop browsers using EME and MSE HTML5 extensions.⁶⁷

Thus, using DLNA VidiPath Cloud Extension Guidelines, MVPDs and OTT content providers will be able to offer commercial content to retail devices either using their traditional content delivery mechanisms (e.g. cable QAM, satellite) or using cloud/IP content delivery mechanism. With the widespread, and growing, adoption of HTML5, which is at the core of the VidiPath Guidelines, consumers will be able receive their content services on consumer electronics devices with VidiPath support. VidiPath Cloud Extension Guidelines also support accessibility services including closed captions, emergency alert messages, and secondary audio programming.

Marketplace Update

VidiPath Certification was launched in September 2014.⁸ DLNA and its members have hosted successful interoperability “plugfests” with promising new products, that were attended by device manufacturers as well as MVPDs. Additional events are planned throughout 2015.

² <http://msdn.microsoft.com/en-us/library/windows/apps/dn466732.aspx>

³ https://docs.google.com/presentation/d/1WWIe6ExAmkQhjYF7m62SiKA8TB7p36LeHwInDI-VtwL8/edit?pli=1#slide=id.gf2a03f66_012

⁴ <https://blog.mozilla.org/blog/2014/05/14/drm-and-the-challenge-of-serving-users/>

⁵ <http://techblog.netflix.com/2014/06/html5-video-in-safari-on-os-x-yosemite.html>

⁶ <http://techblog.netflix.com/2013/04/html5-video-at-netflix.html>

⁷ http://youtube-eng.blogspot.hu/2015/01/youtube-now-defaults-to-html5_27.html

⁸ See, <http://www.multichannel.com/news/technology/dlna-debuts-vidipath-brand-certification-program/383733>

<http://www.digitaltrends.com/home-theater/dlna-vidipath-one-box-transmits-cable-mobile-devices-tvs-gaming-consoles-wireless/>

<http://www.twice.com/dlnas-vidipath-enables-subscription-tv-sharing-home/56216>

<http://www.twice.com/news/tv/dlna-s-vidipath-enables-subscription-tv-sharing-home/56077>

Several service providers have announced support for VidiPath.⁹

DSTAC

We are following with interest the Downloadable Security Technical Advisory Committee (DSTAC). The posted charter of the DSTAC¹⁰ appears to be entirely consistent with the VidiPath Cloud Extension Guidelines. As noted above the core of the VidiPath security is enabled via a choice of commercial DRMs and device authentication tied to a hardware root of trust. This provides the MVPD, and their content providers, a high degree of trust in delivering high value commercial content. VidiPath can be implemented in diverse content distribution network architectures (e.g. cable, telco, satellite) to accommodate many MVPDs.

The Commission has concluded that DLNA satisfies the criteria for an “open industry standard based on the DLNA’s guideline development processes.”¹¹ VidiPath is a market-based, market-driven solution that appears to be applicable to DSTAC. VidiPath is likely to be improved and extended over time based on marketplace demands using DLNA processes, as witnessed in the Guidelines we provide today that add an entirely new MVPD delivery method--via the cloud--to the original VidiPath specs released over a year ago.

I hope that this information is helpful. If you would like more information on VidiPath, or a demo, please feel free to contact me.

Regards,

/s/

Donna Moore
Executive Director

cc: Bill Lake, Media Bureau Chief
Cheryl Tritt, DSTAC Chair
Brendan Murray
Nancy Murphy

⁹See, <http://finance.yahoo.com/news/growing-dlna-vidipath-ecosystem-showcased-170000682.html>
<http://www.multichannel.com/news/technology/dlna-debuts-vidipath-brand-certification-program/383733>

¹⁰ The DSTAC charter is to “Identify, report, and recommend performance objectives, technical capabilities, and technical standards of a not unduly burdensome, uniform, and technology- and platform-neutral software-based downloadable security system designed to promote the competitive availability of navigation devices in furtherance of section 629 of the Communications Act of 1934.”

¹¹ CS Docket No. 97-80 Memorandum Opinion and Order, 28 November 2012, at Sec. 8.