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Digital Living Network Alliance

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VIA ECFS

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

Re: Expanding Consumers' Video Navigation Choices, CS Docket No. 16-42

Dear Ms. Dortch:

Digital Living Network Alliance (“DLNA”) has been following the above titled docket item, the deliberations and output of the Downloadable Security Technical Advisory Committee (“DSTAC”), and, most recently, the issuance of a Notice of Proposed Rulemaking in this docket (the “NPRM”) with interest. This letter provides feedback on those Commission statements and questions in the NPRM for which DLNA has relevant expertise to share.

DLNA is an FCC-recognized open standards organization¹ driven to build industry consensus to advance the interoperability of products in consumers’ connected homes. Founded in 2003, DLNA is a multi-industry collaboration that continues to implement an innovative set of guidelines utilized by electronics manufacturers, service providers, chipset suppliers, automotive and independent software developers to provide consistent performance in a connected home environment². Using a wide array of retail consumer electronics devices built on the DLNA Guidelines, consumers can share and enjoy content on devices, including mobile devices, tablets, PCs, set top boxes, AV receivers, game consoles, TVs and more, regardless of manufacturer.

¹ In the Matter of TiVo Inc.’s Request for Clarification and Waiver of the Audiovisual Output Requirement of Section 76.640(b)(4)(iii), Memorandum Opinion and Order, DA 12-1910 (Rel. Nov. 28, 2012) at 8.

² See <http://www.dlna.org/about/members/>

DLNA has also created a robust certification program which tests and verifies the interoperability of products built to its standards, ensuring consumers that devices from many different manufacturers will successfully connect and exchange content.

The NPRM poses a multitude of open questions for public input and recognizes there is a significant amount of work yet to be completed. Although DLNA does not attempt to answer all of the open questions on the FCC proposed concepts, DLNA is in a unique position to answer questions posed by the FCC that either mention DLNA specifically, and where DLNA is in a position to provide feedback.

The NPRM states “*NCTA claims that the Competitive Navigation approach would take years of lengthy standards development to implement. Competitive Navigation advocates, however, filed a set of specifications for Service Discovery Data, Entitlement Data, and Content Delivery Data, largely based on DLNA VidiPath, that they claim could achieve the Competitive Navigation proposal today. They also claim that “any necessary standardization, if pursued in good faith, should take no more than a single year.”*”³ DLNA notes that the architecture of the Competitive Navigation proposal is materially different than the DLNA VidiPath architecture. DLNA has substantial experience in projects of this complexity, demonstrating that much longer than one year is required for a project of this magnitude. Using the timelines of several similar DLNA projects as illustrative examples, a more realistic expectation is 36 months +/- 12 months for end-to-end projects including project definition, guideline creation, test program creation, plugfests, certification program creation and validation.

The NPRM asks “*We seek specificity on what more work needs to be done for an Open Standards Body to develop standards for Service Discovery Data, Entitlement Data, and Content Delivery Data.*”⁴ Once the requirements are clear, it would be possible to assess what more work would need to be done. In addition to standards development, DLNA's experience suggests that a robust set of compliance and interoperability certification tools and test plans are necessary. The standards by themselves are insufficient to ensure compliance and interoperability.

The NPRM asks “*Are the DLNA VidiPath, RVU, DISH Virtual Joey, and Sling Media Technology Client applications “two-device” solutions that would require consumers to attach MVPD-provided equipment to a sepa-*

³ NPRM ¶¶ 43

⁴ NPRM ¶¶ 43

*rate piece of consumer-owned hardware?*⁵ DLNA VidiPath is a two-device solution. The Guidelines do not state who provides either device. There is no requirement for any DLNA device to be provided by any particular party.

The NPRM asks, “*What additional rights information should be included in Entitlement Data?*”⁶ The information needed for rights is a function of the contractual obligations of the content licensors. DLNA relies on the protection systems we reference to fulfill the necessary contractual obligations.

The NPRM states “...*the specifications necessary to provide these Information Flows appear to exist today...*”⁷ In reference to the specific DLNA Guidelines mentioned in the filing by John Bergmayer, MB Docket No. 15-64, October 20, 2015, it should be noted that "upnp:EPG feature and cds:EPG class described in DLNA Guidelines Part 1 Section 5.7.15 and Part 1 Section 1.7.4.4.11" have no certification program. Testing and certification programs are essential for consumer confidence and device interoperability.

DLNA appreciates this opportunity to provide comments. If the Commission would like more information about DLNA, or a demo of functionality enabled by DLNA Guidelines, please feel free to contact me.

Regards,

/s/

Donna Moore
Executive Director

cc: Bill Lake, Media Bureau Chief

⁵ NPRM ¶¶ 49

⁶ NPRM ¶¶ 39

⁷ NPRM ¶¶ 35