



October 8, 2015

BY ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: *MB Docket No. 15-64*

Dear Ms. Dortch:

EchoStar Corporation (“EchoStar”) hereby responds to the Commission’s request for comment¹ on the final report of the Downloadable Security Technical Advisory Committee (“DSTAC”) submitted to the Commission on August 28, 2015. Congress directed creation of the DSTAC in order 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 of the Communications Act of 1934.”² The Commission seeks comment on all aspects of the report, including the four Working Group reports, as well as how the report should inform the Commission’s obligations under Section 629.³

EchoStar applauds the DSTAC for doing a good job of assembling and summarizing a great deal of information in the very short period of time allowed by statute. As discussed in greater detail below, EchoStar generally supports the conclusions set forth in the DSTAC Summary Report. In addition, the underlying Working Group Reports provides useful information that should be carefully considered by the Commission in any further proceeding in this area. If it is to move forward, the Commission must not oversimplify this complex technological and service delivery ecosystem, as doing so would likely lead to a regime that does not adequately reflect and protect the legitimate interests of all affected parties.⁴ It must also

¹ See Public Notice, “Media Bureau Seeks Comment on DSTAC Report,” DA 15-982 (rel. Aug. 31, 2015) (“Public Notice”).

² Pub. L. No. 113-200, 128 Stat 2059, § 106(d) (2014) (referring to 47 U.S.C. § 549).

³ Public Notice at 1.

⁴ See, e.g., *EchoStar Satellite L.L.C. v. FCC*, 704 F.3d 992 (D.C. Cir. 2013) (overturning encoding rules adopted to implement an agreement between cable operators and programmers that did not consider the interests of DBS operators).

take care to honor the explicit requirements of Section 629 that rules for navigation devices must be adopted “in consultation with appropriate industry standard-setting organizations” and must not jeopardize the security of multichannel video programming and other services.⁵

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EchoStar is a global provider of satellite operations, video delivery solutions, digital set-top boxes, and broadband satellite technologies and services for home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments. Perhaps of most relevance in this proceeding, EchoStar (through its subsidiaries) manufactures and sells advanced digital set-top boxes for use by multichannel video programming distributors (“MVPDs”) or by individual consumers, and supports DISH Network’s satellite operations, which provide subscription satellite television to over 14 million U.S. consumers. Accordingly, EchoStar is uniquely situated to understand and share the perspectives of both service providers and equipment manufacturers in this proceeding.

It is notable that, although the views of disparate interests represented on the DSTAC diverged in many particulars, the committee was able to reach a number of important areas of agreement.⁶ EchoStar supports these areas of agreement, and in particular the recognition that there is a wide diversity of technologies employed by MVPD systems. This diversity means that it would be unreasonable to expect MVPDs to re-architect their systems in order to converge on a common solution. EchoStar also agrees that it would not be economically viable to require manufacturers to build equipment capable of operating with all existing platforms -- including proprietary conditional access technologies. Should the Commission decide to proceed toward adopting rules in this area, it must honor these consensus agreements.

EchoStar understands and supports the subset of the overall business, user, and system requirements documented in the Working Group 1 Report.⁷ While that report does an admirable job of identifying the commercial requirements of many content owners, MVPDs, consumer electronics companies, system equipment manufacturers, and consumers, EchoStar would note two ways in which the report is critically incomplete. First, both membership in the working group and time available to complete a report were limited. As a result, it is quite likely that the report did not capture some requirements that would have been identified by a group with more time and a wider membership – a membership that represented the true breadth and depth of the rapidly changing content delivery industry. Second, as the report itself makes clear, Working Group 1 did not attempt to reconcile the requirements it identified.⁸ The Commission would be

⁵ 47 U.S.C. § 549(a) and (b).

⁶ See DSTAC Summary Report at 2-3 (Aug. 28, 2015). The entire DSTAC Report, including the supporting Working Group Reports, is available at <https://transition.fcc.gov/dstac/dstac-report-final-08282015.pdf>.

⁷ See Report of Working Group 1 to DSTAC (Apr. 21, 2015).

⁸ See *id.*, Appendix 1 at 1.

well advised to augment the Working Group 1 Report to capture a more complete understanding of industry requirements before proceeding with any rulemaking in this area.

The Working Group 2 Report presents information on current video providers' distribution architectures, technologies and platforms.⁹ EchoStar supports this report's documentation of the diversity of systems involved in the video delivery ecosystems that were studied.¹⁰ In particular, EchoStar would highlight the differences between one-way systems, such as direct-to-home satellite platforms, and two-ways systems that support greater levels of interactivity. As the Commission considers whether to take further action in light of the DSTAC Report, it must not lose sight of the great diversity within the industry, the rapid changes that are reshaping it daily,¹¹ and the resulting complications for any "one size fits all" approach.

As noted in the Summary Report, the Working Group 3 Report and the Working Group 4 Report submit somewhat competing and potentially inconsistent approaches to navigation device issues.¹² Before submitting those alternative positions, however, the Working Groups catalogued a wealth of information on approaches currently used to address system security¹³ and for delivery of content to consumers.¹⁴ EchoStar submits that the underlying data documented in these two reports provide critical information that the Commission should consider carefully before taking any action in this area. Indeed, it would be optimal to augment that information with additional real-world data to inform any Commission action and ensure that it is taken with a sufficient record.

With respect to the Commission's request for comment on how that DSTAC Report should inform the Commission's obligations under Section 629, EchoStar would offer three observations. First, the statute directs that, to the extent it adopts rules in this area, the Commission must "consult with appropriate industry standard-setting organizations."¹⁵ Yet the four proposals submitted in connection with the DSTAC Report vary widely in the extent to

⁹ See Report of Working Group 2 to DSTAC (Apr. 21, 2015) ("WG2 Report").

¹⁰ Over-the-top delivery systems were partially documented in the WG 2 Report, but do not seem to have been considered by Working Groups 3 and 4.

¹¹ See, e.g., WG2 Report at 7 ("Over the top video distributors continue to emerge rapidly. Just since the commencement of DSTAC, Sony launched its PlayStation Vue Internet TV service and its licensed channel lineup; Apple is in negotiations with television networks to provide a TV-streaming service similar to DISH Network's Sling TV [*sic*]; and HBO announced the price for its new over-the-top service, to be launched exclusively on Apple devices.")

¹² See DSTAC Summary Report at 3-6.

¹³ See DSTAC WG3 Report at 2-21 and Annexes (Aug. 4, 2015) ("WG3 Report").

¹⁴ See Report of Working Group 4 to DSTAC at 6-106 (Aug 4, 2015) ("WG4 Report").

¹⁵ 47 U.S.C. § 549(a).

which they identify the relevant organization(s) with which the Commission should consult should it wish to pursue the proposed option. Specifically:

- *WG3 “HTML5 Security APIs” Proposal:* As recognized in the DSTAC Report, HTML5 is the new standard defined in 2014 by the World Wide Web Consortium (“W3C”) as a common and open approach to deliver IP streaming media based on Internet protocols.¹⁶ Accordingly, primary elements of this proposal are already widely supported and require no Commission intervention. Should the Commission wish to proceed with this proposal, however, it should bear in mind that not all MVPDs are W3C members, and that therefore consultation with that organization alone may not be sufficient.
- *WG3 “Virtual Headend System” Proposal:* This proposal does not describe which standards bodies should be consulted to “create a technical solution that abstracts the network differences of MVPDs away.”¹⁷ EchoStar is unaware of any such organization, and is confident that no candidate organization includes the full range of MPVD interests affected by this proposal. Moreover, given that this proposal envisions a “cloud-based security system,”¹⁸ it implicates significantly different capabilities and functions for unidirectional systems (such as direct-to-home satellite) as compared to bidirectional systems (such as cable). It is unclear what standards bodies might be relevant for the unidirectional case, or which might understand the essential differences among the many architectures documented in the working group reports.
- *WG4 “Applications-Based Service with Operator Provided user-Interface System” Proposal:* As catalogued in the Working Group 4 Report, MVPDs and equipment manufacturers currently use a variety technologies for the delivery of video content.¹⁹ Some of these technologies are based on publicly-available standards, and some are not. Accordingly, it would be challenging to identify an appropriate range of standard-setting organizations for consultation, especially with respect to non-standards based systems.
- *WG4 “Competitive Navigation System” Proposal:* This proposal describes several interfaces and high level requirements, including several dozen standards spread across many standards-setting organizations.²⁰ If the Commission decides to pursue this proposal, it should seek industry guidance on which organizations should be consulted and how best to conduct such consultations.

¹⁶ See DSTAC Summary Report at 3.

¹⁷ See WG3 Report at 34.

¹⁸ *Id.* at 34-35.

¹⁹ See WG4 Report at 6-106.

²⁰ See *id.* at 115-25.

Second, the Commission’s ongoing proceeding to reassess the appropriate classification of certain over-the-top services as MVPDs,²¹ combined with “traditional” MVPDs’ use of the same broadband technology to deliver parts of their service, requires careful and diligent consideration of both how this classification may change the duties of the Commission under Section 629, and how to balance Section 629 requirements across the changing landscape of the Internet. The WG 2 Report began such an analysis, and efforts similar to those documented in the subsequent working group reports may be required.

Third, Section 629 recognizes that the protection of system security is an essential goal. Specifically, it directs that “[t]he Commission shall not prescribe regulations . . . which would jeopardize security of multichannel video programming and other services offered over multichannel video programming systems, or impede the legal rights of a provider of such services to prevent theft of service.”²² The DSTAC Report recognizes this important principle.²³ The Commission must be similarly cognizant of this critical limitation should it decide to proceed toward a rulemaking in this area.

Respectfully submitted,

/s/

Jennifer A. Manner
Vice President, Regulatory Affairs
EchoStar Satellite Operating Corporation
301-428-5893
jennifer.manner@echostar.com

²¹ See *Promoting Innovation and Competition in the Provision of Multichannel Video Programming Distribution Service*, MB Docket No. 14-261.

²² 47 U.S.C. § 549(b).

²³ See, e.g., WG4 Report at 187 (discussing implications of system security requirement).