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August 1, 2019

## **EX PARTE PRESENTATION**

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

Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197

Dear Ms. Dortch:

Pursuant to Section 1.1206 of the Commission's rules, 47 C.F.R. § 1.1206, DISH Network Corporation ("DISH") submits this letter summarizing the following meetings:

- A meeting on July 30, 2019 with Commissioner Jessica Rosenworcel and Umair Javed, Legal Advisor, Wireless and International, for Commissioner Rosenworcel. Present on behalf of DISH were Charlie Ergen, Chairman; Tom Cullen, Executive Vice President, Corporate Development; Jeffrey Blum, Senior Vice President, Public Policy & Government Affairs; and Hadass Kogan, Corporate Counsel.
- A meeting on July 31, 2019 with David Lawrence, Director of the Sprint/T-Mobile Task Force; Joel Rabinovitz, Attorney, Office of General Counsel; Charles Mathias, Attorney, Wireless Telecommunications Bureau; Kathy Harris, Deputy Chief, Mobility Division, Wireless Telecommunications Bureau; Linda Ray, Attorney, Wireless Telecommunications Bureau; Max Staloff, Attorney, Wireless Telecommunications Bureau; Marcus Maher, Attorney, Office of General Counsel (by telephone); Jeff Tignor, Attorney, Wireless Telecommunications Bureau (by telephone); David Sieradzki, Attorney, Wireless Telecommunications Bureau; Stacy Ferraro, Attorney, Wireless Telecommunications Bureau; Tom Tran, Engineer, Wireless Telecommunications Bureau (by telephone); Matthew Collins, Economist, Office of Economics and Analytics; Katherine LoPiccolo, Economist, Office of Economics and Analytics; Aleks Yankelevich, Economist, Office of Economics and Analytics; Pat DeGraba, Economist, Office of Economics and Analytics; and Cole Rianda, Intern, Office of General Counsel. Present on behalf of DISH were Jeffrey Blum, Senior Vice President, Public Policy & Government Affairs and Hadass Kogan, Corporate Counsel. Pantelis Michalopoulos of Steptoe & Johnson was also present on behalf of DISH.

During the meetings, DISH provided an overview of the terms of a series of arrangements and commitments it has entered into with Sprint, T-Mobile, and the Department of

Justice (“DOJ”) in connection with the DOJ’s approval of the Sprint/T-Mobile merger. DISH explained that the DOJ’s Proposed Final Judgment and the related agreements with Sprint and T-Mobile solve the competitive harms of the transaction as it was originally proposed by, among other things, facilitating DISH’s entry into the wireless market as a fourth nationwide facilities-based competitor.

DISH also noted that the studies conducted and submitted in the record of the above-captioned proceeding by Coleman Bazelon, Jeremy Verlinda, and William Zarakas of the Brattle Group, and Professors Joseph Harrington and David Sappington<sup>1</sup> were based on the merger as it was originally structured.<sup>2</sup> That transaction would have led to a four-to-three consolidation in the mobile voice/broadband market. By contrast, these studies do not apply to the recently entered into set of arrangements, which will create a robust fourth facilities-based competitor in the market.<sup>3</sup>

DISH described how it will be able to compete in the market for retail wireless services upon consummation of the acquisition of Boost Mobile and other assets. DISH also explained that its set of agreements with the Applicants provide more attractive economics than traditional MVNO agreements, including pricing, packaging and marketing flexibility, a mechanism for costs to drop over time, and access to core control (infrastructure MNO agreement). DISH’s

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<sup>1</sup> See e.g., *Joint Declaration of Joseph Harrington and The Brattle Group* (Exhibit B to Petition to Deny of DISH Network Corp., WT Docket No. 18-197 (Aug. 27, 2018)); *Reply Declaration of Joseph Harrington, Coleman Bazelon, Jeremy Verlinda, and William Zarakas* (Exhibit 1 to Reply of DISH Network Corp., WT Docket No. 18-197 (Oct. 31, 2018)); *Further Reply Declaration of Coleman Bazelon, Jeremy Verlinda, and William Zarakas* (Attachment A to letter from Pantelis Michalopoulos, Counsel to DISH Network Corp., to Marlene Dortch, FCC, WT Docket No. 18-197 (Dec. 4, 2018)); Coleman Bazelon, Jeremy Verlinda, and William Zarakas, *Response to Applicant Filings on Diversion Ratios* (Attachment A to letter from Pantelis Michalopoulos, Counsel to DISH Network Corp., to Marlene Dortch, FCC, WT Docket No. 18-197 (Jan. 28, 2019)); Coleman Bazelon, Jeremy Verlinda, and William Zarakas, *Reply to Cornerstone’s Response to DISH and CWA Comments* (Attachment A to letter from Pantelis Michalopoulos, Counsel to DISH Network Corp., to Marlene Dortch, FCC, WT Docket No. 18-197 (Feb. 19, 2019)); Coleman Bazelon, Jeremy Verlinda, and William Zarakas, *Response to Compass Lexecon February 20, 2019 Declaration and Mark McDiarmid March 6, 2019 Declaration* (Attachment A to Comments in Response to Public Notice, WT Docket No. 18-197 (Mar. 28, 2019)); Coleman Bazelon, Jeremy Verlinda, and William Zarakas, *Response to Israel, Katz, and Keating April 12, 2019 Declaration* (Attachment A to letter from Pantelis Michalopoulos, Counsel to DISH Network Corp., to Marlene Dortch, FCC, WT Docket No. 18-197 (May 1, 2019)).

<sup>2</sup> See Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197 (June 18, 2018).

<sup>3</sup> DISH also withdraws its January 29, 2019 challenge to the confidentiality designations made by the Applicants. See Letter from Pantelis Michalopoulos, Counsel to DISH, to Marlene Dortch, FCC, WT Docket No. 18-197 (Jan. 29, 2019).

concerns about the inability of an MVNO to compete effectively<sup>4</sup> are therefore not applicable to the agreements in question.

In addition to the DOJ remedy, DISH outlined the commitments it has made to the FCC regarding its 5G broadband deployment. These commitments and related requested extensions will facilitate and accelerate DISH's entry into the wireless market as a 5G competitor by, among other things, enabling DISH to deploy its spectrum at the same time to provide a better overall 5G service, at lower cost, and on a more efficient deployment schedule. Rather than approaching a network build in two phases, DISH will be able to shift the resources it has dedicated to building out a narrowband Internet of Things network to a 5G network deployment. DISH also provided an overview of the 5G RFI/RFP that DISH distributed to dozens of vendors on July 29, 2019. An executive summary of that RFI/RFP is attached.

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Taken together, these commitments and arrangements will accelerate DISH's competitive entry into the wireless market, benefit consumers across the country, and promote America's leadership in 5G.

/s/ Jeffrey H. Blum

Jeffrey H. Blum

Enclosure

cc: Umair Javed  
David Lawrence  
Joel Rabinovitz  
Charles Mathias  
Kathy Harris  
Linda Ray  
Max Staloff  
Marcus Maher  
Jeff Tignor  
David Sieradzki  
Stacy Ferraro  
Tom Tran  
Matthew Collins  
Katherine LoPiccalo  
Aleks Yankelevich  
Pat DeGraba  
Cole Rianda

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<sup>4</sup> See e.g., Letter from Pantelis Michalopoulos, Counsel to DISH, to Marlene Dortch, FCC, WT Docket No. 18-197 (May 23, 2019).

## **DISH 5G Network RFI/P Executive Summary**

DISH is releasing an RFI/P to understand current and future capabilities, pricing, availability and timelines associated with vendors' products and or services with respect to DISH's planned standalone 5G network. DISH would like to offer services with a high degree of flexibility in deploying a cost-effective nationwide network. Since not all Vendors will receive the full RFI/P, this document provides a summary of the end -to -end scope of DISH's planned 5G network, which is set forth in detail in the RFI/P. Section references in this document match those in the RFI/P, and provide a brief summary of the key aspects of the relevant section in the RFI/P. The information response from the Vendor will be used, among other things, to:

- Develop end-to-end requirements for building a 5G NR Standalone, fully virtualized, cloud native network;
- Evaluate the Vendor's 5G product solutions and roadmaps in order to determine whether they fit into DISH's planned 5G network;
- Support MVNO partnership including Roaming on 4G/5G networks;
- Compare pricing for certain network components and establish a sustainable cost advantage over incumbent wireless players by deploying the latest technology and architectures; and
- Finalize network architecture, design and configurations.

DISH is planning to build a greenfield, standalone, and cloud-native 5G network. The timeline of this network will start with a trial of 5G wireless services in an individual market beginning in early 2020, continue with a commercial launch of initial use cases and markets by the end of 2020, and a nationwide deployment of 5G wireless services to be completed by the first half of 2023.

Additionally as reported, DISH has entered into a series of agreements and arrangements with the United States government, T-Mobile and Sprint that materially impact our deployment plans and will facilitate and accelerate our entry into the wireless market as a nationwide facilities-based carrier. Those arrangements are described in the 8-K that DISH filed on July 26, 2019.

As described below, several components of the arrangement are directly relevant to this RFI/P and how DISH plans to deploy its 5G Network. You should carefully consider them when responding to the RFI/P.

Among other things,

- (1) DISH has agreed to purchase all of Sprint's 800 MHz spectrum (approximately 13.5 MHz of nationwide spectrum). Since this spectrum is being used by Sprint for its CDMA and LTE networks, this spectrum will not be available for purchase until approximately 3 years from the date of this RFI. Nevertheless, we want to incorporate the 800 MHz spectrum as a RAN option with the other spectrum described in the RFI.
- (2) Following the merger of T-Mobile and Sprint, New T-Mobile will sell to DISH certain assets associated with the Boost Mobile, Virgin Mobile and Sprint-branded prepaid mobile service businesses (the "Prepaid Business"), which will provide DISH with millions of wireless subscribers nationwide.
- (3) Pursuant to a Master Network Services Agreement, DISH will gain access to New T-Mobile's network for up to 7 years to enable DISH to provide wireless communications services to end users (including those acquired as part of the Prepaid Business) and to allow DISH to evolve such business into a free-standing, fully independent wireless network operator business.
- (4) DISH has committed to the FCC that, by June 14, 2022, it will have deployed a core network and will offer 5G Broadband Service<sup>1</sup> to at least 20% of the U.S. population<sup>2</sup> using DISH's AWS-4, Lower 700 MHz E Block and H Block licenses.

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<sup>1</sup> "5G" is defined as the 5G New Radio air interface standard as described in 3GPP Release 15, *available at <https://www.3gpp.org/release-15>*, or 3GPP Release 16 within 3 years of 3GPP final approval; "5G Broadband Service" means at least 3GPP Release 15 capable of providing Enhanced Mobile Broadband (eMBB) functionality.

<sup>2</sup> "U.S. Population" is defined as the population of the United States (including the 50 states, Puerto Rico and the U.S. territories) reported in either the 2010 U.S. Census (312,846,492) or the 2020 U.S. Census (which is expected to be reported in 2021). In its sole discretion, DISH may choose whether to utilize the 2010 or 2020 versions of

(5) DISH has committed to the FCC that, by June 14, 2023, it will deploy a nationwide 5G network using DISH's spectrum with:

- (A) At least 70% of the U.S. population having access to download speeds equal to or greater than 35 Mbps, as verified by a drive test;
- (B) At least 15,000 5G Sites<sup>3</sup> deployed; and
- (C) At least 30 MHz of DISH's downlink 5G spectrum averaged over all DISH 5G Sites deployed nationwide.

(6) DISH has committed to the FCC that, by June 14, 2023, it will offer 5G Broadband Service to at least 70% of the U.S. population using its 600 MHz, AWS-4, Lower 700 MHz E Block and H Block licenses.

(7) DISH has committed to the FCC that, by June 14, 2025, it will offer 5G Broadband Service to at least 75% of the population in each Partial Economic Area (PEA) using its 600 MHz licenses.

The above arrangement will have an impact on the equipment and services that DISH will procure for its 5G network as follows:

- a) We want to incorporate the 800 MHz spectrum in our Radios and Devices as an option along with the other spectrum described in this RFI.
- b) Prepaid customers will eventually be migrated to DISH's business support system (BSS) and the system should be capable to handle a large number of prepaid subscribers and also new customers on DISH's 5G Network.
- c) As we continue to build our 5G SA network, DISH's subscribers will be able to roam onto new T-Mobile's 4G and/or 5G networks. Handovers and session continuity between the two networks is an important technical requirement.

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the U.S. Census in calculating its compliance with its commitments, but DISH must apply the same population total and population distributions to all calculations uniformly.

<sup>3</sup> "5G Sites" is defined as macro sites on which 5G radios are deployed.

- d) The interworking between DISH's 5G SA network and the LTE core of T-Mobile is very important, it is required to maintain a consistent (though not equal) level of service in these roaming scenarios. The traffic will be home routed requiring the need for a converged 5G core.
- e) The devices will need to be able to work in standalone mode just as well as non-standalone mode.
- f) To operate in this environment, DISH will require dedicated operational support systems (OSS) or additional OSS and BSS features required for inter-carrier settlements, for customer relationship management when roaming, for system integration, for testing, for service level agreement monitoring, for device and SIM/eSIM management.

The document is both an RFI and an RFP. In certain sections of the document we ask about compliance with detailed technical requirements (specified in the Excel sheets referenced in the RFI/P), but at the same time we also ask questions to determine the capabilities, architecture and implementation needed to meet those requirements.

The document scope is wide, covering end-to-end 5G network components, requirements, specifications and use cases. The planned network will be architected to support both wholesale and retail business models. We envision multiple use cases (including, but not limited to, the following categories: eMBB, mMTC and URLLC) that span multiple verticals such as automotive, manufacturing, media and entertainment, energy, healthcare, public safety and smart city.

DISH's spectrum assets range from low band to millimeter wave spectrum, but this RFI/P is primarily focused on deployment in the following 3GPP spectrum bands: n71, n29, n70, n66, and n26.