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REDACTED—FOR PUBLIC INSPECTION

February 27, 2019

By ECFS

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

Re: Notice of Ex Parte Meetings, 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:

On February 25, 2019, representatives of DISH Network Corporation¹ (“DISH”) met with members of the FCC Transaction Team listed in Attachment A to discuss the above-captioned merger, consistent with the presentation enclosed as Attachment B.²

During the meeting, DISH explained that the Applicants’ own economists predict significant price increases, the harm from which would fall disproportionately on lower-income subscribers. As DISH previously explained, prices for Sprint customers still increase under *both* Cornerstone’s and Compass Lexecon’s analyses *even if*: one assumes that *all* of the Applicants’ 5G claims were accurate; one were to accept the multi-year ramp (through 2024) that the

¹ Participating for DISH were Jeffrey Blum, Senior Vice President, Public Policy & Government Affairs and Hadass Kogan, Corporate Counsel (for the public portion of the discussion only). Also present were Pantelis Michalopoulos and Andrew Golodny of Steptoe & Johnson, LLP, and William Zarakas, Jeremy Verlinda, Coleman Bazelon, and Yong Paek of the Brattle Group.

DISH has denoted with **{{BEGIN HCI END HCI}}** information that is deemed to be Highly Confidential Information pursuant to the Protective Order, WT Docket No. 18-197, DA 18-624 (June 15, 2018). A public, redacted version of this filing is being filed with the Commission.

² Attachment B reflects minor revisions to the version that was distributed. Additionally, Table 4 of Brattle’s January 28 report had the data for Cricket and MetroPCS transposed. This was corrected in the table on page 18 of the enclosed presentation.

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Applicants claim they need; and one were to ignore the additional price increases due to coordinated effects that would result from the merger.³

Additionally, the Applicants' brands are significantly closer substitutes for each other than the Applicants' economists have claimed. Both porting data and the Applicants' own deactivation surveys show substantially greater switching among the Applicants' brands than Cornerstone's model. The leadership of both Applicants relies on porting data to evaluate competition from the other Applicant and to make pricing decisions in response to that competition. The Commission should not substitute the Applicants' experts' judgment for that of the companies themselves, as expressed in the ordinary course of business.

DISH also expressed its preliminary views of the Applicants' most recent economic submission.⁴ As an initial matter, the Applicants' latest submission is woefully inadequate. First, the Applicants' experts have abandoned any efforts to determine whether the merger would increase prices, and now simply *assume* that it would not. In its February 4 letter describing its "price commitment" T-Mobile's counsel wrote: "[t]he Applicants' representation that consumers will pay less as a result of the merger is supported by . . . merger simulations focused on New T-Mobile prices," and cited to Compass Lexecon's original report.⁵ But now Compass Lexecon bases its new economic analysis on that price commitment: "[w]e model the near-term retail price constraints that New T-Mobile will face *by assuming* that New T-Mobile's prices in 2019 and 2020 can be no higher than the 2019 levels of the corresponding rate plans offered by the standalone companies"⁶ This circular reasoning simply assumes away the question that needs to be answered: if prices are presumed not to increase, then any increase in efficiencies, no matter how small, can be presented as "gravy" that supposedly increases consumer welfare. The Commission should not accept this flawed logic.

And, Compass Lexecon admits that current Sprint customers could face deterioration in 4G service if this merger is approved: "T-Mobile customers would experience improved network throughput as a result of the merger, regardless of which LTE throughput projection methodology is used. By contrast, *whether our throughput-focused measure of Sprint*

³ See Coleman Bazelon, Jeremy Verlinda, and William Zarakas, *Reply to Cornerstone's Response to DISH and CWA Comments* at 10 (Feb. 19, 2019) (attachment A to letter from Pantelis Michalopoulos, DISH Counsel, to Marlene Dortch, WT Docket No. 18-197).

⁴ See Letter from Nancy Victory, T-Mobile Counsel, to Marlene Dortch, WT Docket No. 18-197 (Feb. 20, 2019).

⁵ Letter from Nancy Victory, T-Mobile Counsel, to Marlene Dortch at 1-2, WT Docket No. 18-187 (Feb. 4, 2019).

⁶ Mark Israel, Michael Katz, and Bryan Keating, *Extension of the Israel, Katz, and Keating Analysis to 2019-2020* at 3 (Feb. 20, 2019) (attachment B to Letter from Nancy Victory, T-Mobile Counsel, to Marlene Dortch, WT Docket No. 18-197) (emphasis added).

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customers' valuation is higher for New T-Mobile than for standalone Sprint depends on the throughput projection methodology used.”⁷

During the meeting, DISH's economists also reiterated that the exclusion of *any* additional millimeter wave spectrum in the Applicants' network model is both unrealistic and results in marginal cost efficiencies that are significantly overstated. In addition to the documents referenced previously by DISH⁸ and in the enclosed presentation, a newly produced document **{{BEGIN HCI**

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On the question of the Applicants' confidentiality claims, DISH noted that estimates of the aggregate effects of the merger, such as estimated price effects and the estimated willingness of classes of users to pay for speed improvements, should not be entitled to confidential treatment. It is impossible to reverse-engineer from these pricing or willingness-to-pay estimates any highly confidential information of the Applicants. The undersigned also had a brief telephone conversation with Mr. Rabinovitz on February 25 on this matter.

Please contact me with any questions.

Respectfully submitted,

/s

Pantelis Michalopoulos
Counsel to DISH Network Corporation

⁷ *Id.* at 10 (emphasis added).

⁸ See Letter from Pantelis Michalopoulos, DISH Counsel, to Marlene Dortch, WT Docket No. 18-197 (Feb. 4, 2019).

⁹ See TMUS-FCC-07942268 **{{BEGIN HCI**

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Attachment A

Kathy Harris
Kate Matraves
Aleks Yankelevich
Tom Tran
Joel Rabinovitz
Ronald Repasi
Ziad Sleem
Donald Stockdale
Patrick Sun
Nicholas Copeland
Katherine LoPiccalo
Charles Mathias
David Lawrence
Pramesh Jobanputra
Giulia McHenry
David Sieradzki
Monica DeLong

Attachment B

Economic Analysis of the Proposed Sprint/T-Mobile Merger

PRESENTED TO
Federal Communications Commission

PRESENTED BY
Coleman Bazelon
Jeremy Verlinda
William Zarakas

February 25, 2019

THE **Brattle** GROUP

Summary of Conclusions - I

The Cornerstone model predicts significant price increases, the harm from which would fall disproportionately on lower-income subscribers

- The Cornerstone model predicts price increases that exceed WTP for hypothetical quality increases, even under Applicants' claimed LTE marginal cost savings
- The Cornerstone model predicts price increases using the NMP income information that are substantially greater than Cornerstone's original model predicts, particularly for prepaid brands

Summary of Conclusions - II

The Applicants' brands are significantly closer substitutes to each other than Cornerstone and Compass Lexecon have claimed

- Porting data, used extensively by the Applicants in ordinary course business decision making—including pricing and promotional activity—provide reliable information about the switching behavior of wireless subscribers
- The Applicants also rely on survey information, such as deactivation follow-up surveys, to assess switching behavior. Even if they were accurate, these surveys also indicate substantially greater switching among the Applicants' brands than the Cornerstone model estimates
- The Cornerstone model is unreliable for estimating diversion and merger harm
 - The model does not directly estimate subscriber responses to prices, making the resulting brand diversion ratios reproductions of shares
 - Consideration of actual Nielsen Mobility Performance (“NMP”) income information illustrates that the Cornerstone model fails to capture important market segmentations

Summary of Conclusions - III

The Applicants' claimed marginal cost efficiencies are significantly overstated, driven in part by the exclusion of millimeter wave spectrum in the network model

- Review of the Applicants' network model reveals that omission of the Applicants' planned millimeter wave spectrum acquisitions causes the model to overstate network marginal cost savings
- These overstated marginal cost savings persist regardless of quantity of millimeter spectrum acquired, specifically whether each Applicant acquires 100, 200, or 500 MHz of millimeter wave spectrum

Price Increases in the Cornerstone Model

Cornerstone's model predicts price increases across all cost savings scenarios

- Irrespective of marginal cost savings scenarios, the merger leads to price increases (assumes no network quality improvements)

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Cornerstone's model predicts price increases exceeding WTP

- Price increases exceed median WTP for claimed quality improvements for each of the Applicants' brands
- Price increases exceed WTP for a majority of the Applicants' subscribers

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Cornerstone's model predicts price increases exceeding WTP even under LTE cost savings

- Cornerstone produces misleading results by combining 5G marginal cost savings with LTE quality improvements into a single merger simulation
- Cornerstone has ignored the LTE cost efficiencies that are in Compass' network model.
- Notwithstanding concerns with claimed cost efficiencies, we consider merger simulation combining claimed LTE cost savings and LTE quality improvements
 - Price increases exceed WTP for a majority of the Applicants' subscribers

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Using NMP income data in the merger simulation produces large price increases for non-premium brands

- Use of the premium/non-premium brand market segmentation implied by the NMP income information would lead to substantially greater price increases for non-premium subscribers

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Porting Data

The Applicants rely on porting data to assess pricing and competition from rivals

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The Applicants rely on porting data to assess pricing and competition from rivals

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Diversion ratios calculated using porting data

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Comparison of diversion ratios based on porting data and the Harris survey

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Source: Harris Mobile Insights Survey & Brattle Calculations based on TMUS-FCC-00206649

Survey Information

Even if survey data were accurate, they indicate that Sprint and T-Mobile brands are close substitutes

- Review of the Harris and deactivation surveys indicate that the Applicants' brands are closer substitutes than the Cornerstone model suggests
- This is particularly the case for non-premium brands, with the deactivation survey questions related to subscriber's plan "costs" showing that Boost and MetroPCS switchers mainly divert to each other

Deactivation Survey and Diversions: Questions Related to Cost

Below shows *Boost* subscribers' primary reason for switching-out
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Source: SPR-FCC-02425213

Deactivation Survey and Diversions: Questions Related to Cost

Below shows *MetroPCS* subscribers' primary reason for switching-out

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Source: TMUS-FCC-07675268

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Survey data indicates that Sprint and T-Mobile brands are also close substitutes in urban areas

- Harris Survey shows switches are vastly different across Urban and Rural geographical areas for the merging parties

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Diversion ratios can be estimated for geographic areas

- The Harris survey allows for calculation of diversion ratios by region type

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Diversion in the Cornerstone Model

Cornerstone's logit model does not include individual price change data

- Cornerstone's model does not have price in its demand estimation and is thus not especially informative about price sensitivity
- Cornerstone's estimated price diversion is identical to the diversion estimates for changes in any non-modeled characteristics:
 - Example 1: The presence or absence of data caps, or throttling variation across plans or carriers, would have the same exact diversion estimates
 - Example 2: Hue of brand coloring would have the same exact diversion estimates
- The formulaic derivation of the diversion ratio in the Cornerstone model is:

$$D_{jk} = \frac{\sum_i \omega_i P_{ik} P_{ij}}{\sum_i \omega_i P_{ij} (1 - P_{ij})}$$

Cornerstone's model uses numerical (price) simulation to estimate diversion ratios, not price change data

Cornerstone's estimated diversion:

1. Does not depend on the model estimates for the effects of brand characteristics on utility.
 - For example, while price sensitivity is only indirectly determined by Cornerstone (through a supply side assumption, not through the demand model), that estimated price sensitivity has no effect on the estimated diversion ratios.
2. Does not depend on the change in any non-modeled characteristics underlying the reason subscribers change brands.
3. A natural consequence of 1 and 2 above is that the same diversion values are calculated for a change in price as for a change in any other, non-modeled brand characteristics.
4. If the choice probabilities are equal across individuals ($P_{ij} = P_j$ for all i), as they are for the antitrust logit model, the diversion ratio collapses to the familiar share proportionality formula, $s_k / (1 - s_j)$.
5. Cornerstone does not deny this.

The “rich” NMP data used by Cornerstone do not include as much individual variation as advertised

- There is simply no meaningful variation in the consumer characteristics (mainly, income) data
- Cornerstone’s model assigns the same median income to individuals in the same zip code; no matter what brand the individual chooses, the model misses an important driver of brand choice
- There is no actual “switching/diversion” observed in the data. Again, diversions are purely derived from estimated choice-probabilities

The diversion ratios yielded by Cornerstone are nearly identical to share-based diversions

**Cornerstone diversion estimates versus share proportionality
(Aggregating Local Shares from KPMG StreamShare data)**

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Census-based income data, as used by Cornerstone, does not provide meaningful individual variation

- Use of zip code income data assigns the same income for all subscribers within the zip code
- Using income survey data from the NMP data more accurately captures individual incomes within a zip code. Use of these data shows significantly more divergence in income for premium and non-premium brands
- This generates sufficient variation to find segmentation in choice-probabilities across consumer characteristics
- Resulting diversions (using NMP income data) are more intuitive

NMP income data has a very different distribution than use of zip code based incomes

**Census Median Income Distribution for
NMP Respondents Who Reported Income by
Brand Category**

**NMP Reported Income Distribution for
NMP Respondents Who Reported Income by
Brand Category**

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Diversion ratios estimated using income from NMP respondents produce very different diversion ratios

- Using the NMP survey income data to estimate the Cornerstone model reveals that there is noticeable market segmentation—especially across premium and non-premium brands

Diversion calculated from Cornerstone model underestimated NMP income

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Using the NMP individual income data produces much higher diversion among the Applicants' non-premium brands

- Diversion ratios are much higher than estimated by Cornerstone

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mmWave Adjustments

Sensitivity tests test of mmWave adjustments show robust results

**Percentage Decrease in Marginal Cost Savings Relative to Compass Lexecon by
Millimeter Wave Scenario
(Maintain Usage Restrictions)**

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Applicants demonstrated need for and interest in mmWave spectrum

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Applicants demonstrated need for and interest in mmWave spectrum

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Source: SPR-FCC-13923459/SPR-DOJ-13923459

- This newly produced document makes quite clear **{{BEGIN HCI**

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