



March 24, 2016

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

Re: *Special Access for Price Cap Local Exchange Carriers, WC Docket Nos. 05-25, RM-10593; Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans, WC Docket No. 15-247.*

Dear Ms. Dortch:

Pursuant to the *Business Data Services Collection Protective Order*,¹ *Tariff Investigation Protective Order*,² and *Second Protective Order*³ in the above-referenced proceedings, Sprint Corporation (“Sprint”) hereby submits a redacted version of the attached ex parte, which contains highly confidential information. Highly confidential treatment of the respectively marked portions of the attached document is required to protect information derived from data submitted in response to the Commission’s Data Collection Order,⁴ as well as information regarding:

- The “extent to which companies rely on incumbent local exchange carrier . . . and non-incumbent LEC last-mile facilities and local transport facilities” and “the nature of those inputs”⁵;

¹ See *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans*, Protective Order, DA 15-1387, WC Docket Nos. 15-236 & 05-25, RM 10593, Appendix A (Wireline Comp. Bur. rel. Dec. 4, 2015) (“*Business Data Services Data Collection Protective Order*”).

² See *Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans*, Protective Order, DA 15-247, WC Docket Nos. 15-236 & 05-25, RM 10593, Appendix B (Wireline Comp. Bur. rel. Dec. 4, 2015) (“*Tariff Investigation Protective Order*”).

³ *Special Access Rates for Price Cap Local Exchange Carriers*, Second Protective Order, DA 10-2419, 25 FCC Rcd. 17,725 (2010) (“*Second Protective Order*”).

⁴ See *Second Protective Order* ¶¶ 5-6; *Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd. 16,318 (2012).

⁵ *Second Protective Order* ¶ 6.

Ms. Marlene H. Dortch
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- Factors that companies “take into account when deciding what types of channel termination and local transport facilities to lease”⁶;
- The “types of customers companies serve and the types of special access-type services demanded by those customers”⁷;
- The factors companies consider “when deciding whether to self-deploy channel termination and local transport facilities or lease such facilities from a third party”⁸;
- The “nature or type of structure where . . . cell sites are placed” and “the type or capacity of the connections provided to companies’ cell sites”⁹;
- The “terms and conditions of or strategy related to . . . most sensitive business negotiations or contracts”¹⁰;
- “[D]etailed or granular information about specific network facilities, including types, equivalents, and capacities, whether TDM- or IP-based services”¹¹;
- “[C]urrent or future plans regarding the transition from TDM- to IP-based services or to compete for a customer or specific groups or types of customers (e.g., retail business or wholesale customers), including specific pricing or (tariffed or non-tariffed) contract proposals, pricing strategies, product strategies, advertising or marketing strategies, future business plans, procurement strategies, technology implementation or deployment plans and strategies (e.g., engineering capacity planning documents)”¹²;
- The “nature or contents of private non-tariffed commercial agreements”¹³;
- The analyses performed about “competitors, including data, sources and methods used in those analyses”¹⁴; and
- “Descriptions of CLEC or out-of-region ILEC sales, pricing structures and discounts” and “expenditures” under “certain rate structures and discount plans.”¹⁵

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Business Data Services Data Collection Protective Order* at Attachment 1.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *See Special Access for Price Cap Local Exchange Carriers*, Letter from Sharon E. Gillett, Chief, Wireline Competition Bureau, to Donna Epps, Vice President, Federal Regulatory Affairs, Verizon, DA 12-199, 27 FCC Rcd. 1545 (Feb. 13, 2012) (supplementing the *Second Protective Order*).

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The marked information is not available from public sources, and, “if released to competitors, would allow those competitors to gain a significant advantage in the marketplace.”¹⁶

In accordance with the *Business Data Services Collection Protective Order*, *Tariff Investigation Protective Order*, and *Second Protective Order*, Sprint is filing a redacted version of the attached document electronically via ECFS, and will submit one hardcopy to Secretary’s Office without redaction, and two hardcopies each to Christopher Koves and Marvin Sacks, Pricing Policy Division, Wireline Competition Bureau, without redaction.

Please contact me if you have any questions or require any additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Bagg".

Jennifer P. Bagg
Counsel to Sprint Corporation

Attachment

¹⁶ *Id.* at 1546.



March 24, 2016

VIA ELECTRONIC FILING

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

Re: Special Access for Price Cap Local Exchange Carriers; WC Docket No. 05-25, RM-10593; Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans; WC Docket No. 15-247

Dear Ms. Dortch:

The Commission has now completed the most comprehensive data collection in the agency’s history and received thousands of pages of comments detailing the extensive and long-held market power that the incumbent local exchange carriers (“ILECs”) wield over the broken special access marketplace. In response to now conclusive evidence of their dominance, the ILECs ask the Commission to ignore the dearth of special access competition on the promise that cable providers have upended the special access marketplace and will soon emerge as fierce competitors to ILEC special access¹—just as they have done all along in the more than a decade since the Commission initiated this proceeding.² The Commission should reject these renewed efforts to stall the reforms necessary to unleash broadband competition at a critical point of transition in our nation’s wireline and wireless infrastructure.

¹ See, e.g., Letter from Christopher Shenk, counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, at 6-8, WC Docket No. 05-25 (filed Mar. 21, 2016) (“Mar. 21 AT&T Ex Parte”); Comments of AT&T at 13-15, WC Docket No. 05-25 (filed Jan. 27, 2016) (“AT&T Comments”); Letter from Maggie McCready, Verizon, to Marlene H. Dortch, Secretary, FCC, at 2-3, WC Docket No. 05-25 (filed Mar. 1, 2016) (“Mar. 1 Verizon Ex Parte”); Comments of Verizon at 28-30, WC Docket No. 05-25 (filed Jan. 27, 2016) (“Verizon Comments”); see generally Letter from Melissa E. Newman, CenturyLink, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 (filed Mar. 17, 2016).

² See, e.g., Comments of Verizon at 28, WC Docket No. 05-25 (filed June 13, 2005) (“2005 Verizon Comments”) (“Cable broadband can substitute directly for traditional private line services used by small and medium businesses, and cable operators aggressively are extending their fiber to the premises of office buildings.”); Comments of AT&T at 18, WC Docket No. 05-25 (filed Aug. 8, 2007) (“2007 AT&T Comments”) (proclaiming that “competition provided by cable operators has dramatically intensified over the past two years,” predicting steep losses in “retail DS1 circuits . . . to cable service providers” as a result of fiber and “hybrid fiber-coaxial cable facilities”); see also Letter from Dee May, Verizon, to Marlene H. Dortch, Secretary, FCC, at Attachment D p.6 (filed Sept. 5, 2007) (“2007 Verizon Ex Parte”).

The latest ILEC attempt to position cable providers as potential competitors that will discipline prices sometime in the near future fails for three primary reasons. *First*, contrary to the predictions made by the ILECs in this proceeding, cable fiber networks, and those of competitive local exchange carriers (“CLECs”), remain small in size and reach. While these networks provide limited choice to businesses in some locations, they do not provide effective competition in the vast majority of locations in the United States. As discussed below, marketplace trends since 2013 merely confirm this fact. They show that competitive providers, bogged down by entry barriers and classic overbuild economics, are expanding their fiber networks too selectively and slowly to create competitive conditions in the special access marketplace in the foreseeable future.

Second, despite significant advancements in standards technology for hybrid fiber-coaxial (“HFC”) data transmission with the introduction of DOCSIS 3.0, the ILECs’ more than decade-old prediction that cable HFC networks would bring effective competition to the special access marketplace also has turned out to be incorrect. At present, Ethernet over HFC (“EoHFC”) services are not available to every business location, including many in proximity to cable companies’ traditionally residential footprint, nor to most wireless towers. Importantly, even where access is available, EoHFC cannot substitute for special access *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** ***. Indeed, *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** ***.

Third, even assuming that EoHFC services improve in capacity and eventually reach ubiquitous deployment, they would not bring effective competition to the special access marketplace. As cable companies upgrade their HFC networks, demand for bandwidth-intensive and performance-sensitive applications will continue to increase. More importantly, even if the capabilities of HFC networks managed to catch up to, and keep pace with, the requirements of each and every special access consumer, and even if cable providers managed to overbuild the footprint of each and every ILEC with HFC, there would still be a duopoly at *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** *** of locations with special access demand. Having already concluded that an *actual* duopoly does not support the vibrant competition necessary to bring efficient pricing and innovative services to telecommunications markets, the Commission cannot conclude that a hypothetical—and, indeed, unobtainable—special access duopoly adequately constrains ILEC rates, terms, and conditions.

I. Cable Fiber Networks are Limited in Reach and Slowly Expanding.

Since the beginning of this proceeding, the ILECs have asserted that “cable operators aggressively are extending their fiber to the premises of office buildings,” and offered these efforts as proof of imminent special access competition.³ The ILECs pointed to CLEC fiber

³ 2005 Verizon Comments at 28.

collocations, and modest CLEC inroads in a handful of ILEC-dominated MSAs, to buttress these claims.⁴ More than ten years ago, the ILECs submitted news reports and advertisements to document the “ambitious plans” of these would-be competitors.⁵ They even directed the FCC to cable company “web sites” for smoking-gun evidence of thriving competition—like Cox Communications’ assertion that it was an “ideal communications partner.”⁶

The ILECs’ thinly supported predictions proved incorrect. Despite years of expansion efforts by competitive providers, both cable operators and CLECs have managed to introduce effective competition to only a ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** fraction of the special access marketplace. As the Commission’s data collection demonstrates, ILECs remain the sole provider of special access in ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** of customer locations.⁷ There is a duopoly at ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** of locations, and three competitors at ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** of locations, leaving fewer than ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** of locations with four or more competitors. A duopoly is not sufficient to discipline incumbent rates, terms, and conditions.⁸ To be clear, these results account for the fiber networks of both CLECs and cable companies,⁹ with cable companies serving roughly ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** of the limited locations where a competitive provider offers service.¹⁰

Confronted by data disproving their initial predictions, the ILECs simply lather, rinse, and repeat. The ILECs insist that the moment marketplace participants pressed “submit” on the Commission’s data collection portal, competitive dynamics intensified drastically, to the point where cable and CLEC fiber networks *really are* on the verge of transforming the special access marketplace. There is no more reason to believe these claims now than there was in 2005. Indeed, today’s ILEC evidence is strikingly similar to the evidence they submitted in 2005—and equally flimsy.

⁴ *Id.*

⁵ *Id.* at 29.

⁶ *Id.*

⁷ Declaration of Stanley M. Besen and Bridger M. Mitchell ¶¶ 25, 26 & Table 1, appended as Attachment 1 to Comments of Sprint Corporation, WC Docket No. 05-25 (filed Jan. 27, 2016) (“Besen/Mitchell Decl.”).

⁸ *Id.*

⁹ Supplemental Declaration of William P. Zarakas ¶¶ 2-3 (dated Mar. 23, 2016), attached hereto as Attachment A (“Supplemental Zarakas Decl.”).

¹⁰ *Id.* ¶ 7.

First, as Sprint has explained previously,¹¹ the ILECs' new collection of curated news reports, advertisements, and websites concerning the "ambitious"¹² plans of competitive providers hardly indicates that cable companies and CLECs will suddenly emerge as rivals across the ILECs' collective footprint. To the contrary, they corroborate the substantial record evidence¹³ that insurmountable barriers to competitive entry typify the special access marketplace. For example, numerous reports cited by the ILECs indicate that cable companies' fiber expansion efforts are limited in scope to certain "communities" and "business districts," and that cable companies increasingly resort to non-facilities-based expansions as a result of the time and cost associated with overbuilding ILECs even in dense locations.¹⁴ Along the same lines, a news report about XO Communications ("XO") cited by Verizon discusses how a "\$500 million" XO fiber deployment initiative resulted in "completed fiber construction projects" in just "550 enterprise buildings."¹⁵ At that pace, it would take generations to expand XO's fiber

¹¹ See generally Reply Comments of Sprint Corporation at 20-38, WC Docket No. 05-25 (filed Feb. 19, 2016) ("Sprint Reply Comments"); Sprint Corporation Opposition to ILEC Direct Cases at 9-15, WC Docket No. 15-247 (filed Feb. 5, 2016) ("Sprint Direct Case Opposition").

¹² Brief of AT&T Inc. in Support of Its Direct Case at 7 n.17, WC Docket No. 15-247 (filed Jan. 8, 2016) (discussing Birch Communications' "ambitious goal" to expand its fiber presence) ("AT&T Direct Case"); see also *id.* at 7, 12-13; Verizon Comments at 32-33.

¹³ See, e.g., Reply Comments of Birch, EarthLink, and Level 3 at 4-11, WC Docket No. 05-25 (filed Jan. 27, 2016) ("Joint CLEC Reply Comments"); Sprint Reply Comments at 20-38; Sprint Direct Case Opposition at 9-15.

¹⁴ See Verizon Comments at 31 n.83; see also AT&T Direct Case at 7 and Letter from John W. Mayo, Georgetown Center for Business and Public Policy, to Marlene H. Dortch, Secretary, FCC, at attachment p. 8, WC Docket No. 05-25 (filed Mar. 15, 2016) (each citing Sean Buckley, *Birch's Oddo: We'll Expand our Fiber Network to 1M Buildings via Organic Builds, Partner Agreements*, FierceTelecom (Dec. 2, 2015), <http://www.fiercetelecom.com/story/birchs-oddo-well-expand-our-fiber-network-1m-buildings-organic-builds-partn/2015-12-02> (conceding that "building our own fiber network" is a "long process" and that Birch will "leverage existing relationships" and expand "relationships with other fiber owners" to reach more customers in dense urban areas)).

¹⁵ See Direct Case of Verizon at 20, WC Docket No. 15-247 (filed Jan. 8, 2016) ("Verizon Direct Case") and Letter from Curtis Grove, Verizon, to Marlene H. Dortch, Secretary, FCC, at 5, WC Docket No. 05-25 (filed Sept. 24, 2015) ("Sept. 24 Verizon Ex Parte") (citing Sean Buckley, *XO Takes Success-Based Approach to On-Net Fiber Buildouts*, FierceTelecom (Sept. 3, 2015), <http://www.fiercetelecom.com/story/xo-takes-success-based-approach-net-fiber-buildouts/2015-09-03>); see also Letter from Thomas W. Cohen, counsel for XO Communications, to Marlene H. Dortch, Secretary, FCC, at 2, WC Docket No. 05-25 (filed Sept. 23, 2015) (citing the same report, and suggesting that despite these efforts "XO's network facilities cannot reach all locations where it seeks to serve customers" and must rely "heavily on the facilities and services of the price cap LECs").

network from its existing reach of “4,000 on-net buildings”¹⁶ to a number that even remotely approximates a meaningful share of the nearly ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****¹⁷ locations served only by an ILEC— unless, of course, an ILEC acquired XO first. These reports also undermine the ILECs’ own competitive analyses, which incorrectly assume that competitors will soon be able to supply special access services at any business location located anywhere near a competitor’s fiber optic cable, even if there is no connection point anywhere in the area, and even if it would cost more to build the connection than a business would ever want to pay.¹⁸ Like the flawed rationale for the now-suspended collocation-based pricing flexibility triggers, these analyses ignore the enormous barriers to last-mile overbuilds in many locations throughout the country—rural, suburban, and urban alike.

Second, the ILECs purport to establish surging growth in cable special access by quoting figures about expansions in cable facilities that are not used to provide special access services at all. For example, Verizon refers to an announcement about the addition of commercial buildings to Time Warner Cable’s coaxial network.¹⁹ As Time Warner has stated on the record, it does not supply special access services over coaxial lines.²⁰ The ILECs’ assumption that all businesses in proximity to cable coaxial networks have access to a substitute service for special access relies on the same mistaken prediction made years ago²¹ that cable modem offerings would soon emerge as ubiquitous and fully competitive with special access services. As explained below, this prediction also has been disproven, and there are no grounds to conclude that it has suddenly gained merit now.

II. EoHFC Services are not Fully Competitive with Special Access Services.

The majority of services that cable companies offer are comprised of Ethernet over coaxial or HFC. Cable coaxial networks historically have been used to provide video services

¹⁶ XO COMMUNICATIONS, LLC, *Network Reach*, <http://www.xo.com/why/the-right-network/reach/>.

¹⁷ Supplemental Zarakas Decl. ¶ 6.

¹⁸ *See, e.g.*, AT&T Comments at 3; Verizon Comments at 30.

¹⁹ Reply Comments of Verizon at 2, 22, WC Docket No. 05-25 (filed Feb. 19, 2016) (“Verizon Reply Comments”).

²⁰ *See* Letter from Matthew Brill, counsel for Time Warner Cable, to Marlene H. Dortch, Secretary, FCC at 2, WC Docket 05-25 (filed Mar. 3, 2016) (“TWC Ex Parte”) (HFC Internet access service is “not a dedicated Internet access service, but rather a best efforts service that operates over a shared network”); ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****.

²¹ *See, e.g.*, 2005 Verizon Comments at 24, 28; 2007 AT&T Comments at 18; Reply Comments of Verizon at 33-35, WC Docket No. 05-25 (filed Aug. 15, 2007) (“2007 Verizon Comments”); 2007 Verizon Ex Parte at Attachment D p.6.

and broadband access to residential customers. The efforts of cable companies to build fiber from the headend to the fiber node and extend coaxial to some business locations within their footprint, combined with advancements in data-over-coaxial standards and equipment, have resulted in the offering of Ethernet and broadband access services delivered over HFC. Where available, these HFC services provide a meaningful alternative to copper- and fiber-based best efforts services that enterprise customers have purchased for years.²² These services, however, fall short of providing meaningful competition to ILEC *special access* services in numerous respects.

First, EoHFC is not yet available in all business locations served by ILEC special access—nor at most cellular tower sites.²³ While cable companies have expanded their coaxial networks, a significant number of buildings located both in and outside the cable footprint continue to lack access to last-mile coaxial facilities. Newer commercial buildings with fiber, retailers surrounded by large parking lots, large business locations set back far from roadways, airports, malls, and other locations often lack a coaxial connection.²⁴ Indeed, cable companies themselves have acknowledged that their networks lack the extensive reach necessary to compete with ILECs.²⁵ Moreover, as with fiber, constructing coaxial facilities to these previously unserved locations can prove prohibitively costly and time-consuming, even in dense urban and suburban areas that comprise a large portion of the cable footprint. The costs of construction, the need to obtain permitting, rights of way, and other permissions, and the limited revenue available at the customer location—particularly in light of the lower price consumers are willing to pay for HFC services—can make extending EoHFC to unserved businesses uneconomic.²⁶

²² Indeed, Verizon’s latest advertisements for its FiOS service tout the advantages of fiber relative to cable HFC offerings even for residential broadband services.

²³ See Second Declaration of Ed Carey ¶ 7 (dated Mar. 24, 2016), attached hereto as Attachment B (“Second Carey Decl.”).

²⁴ *Id.*

²⁵ See Opposition to Petitions to Deny and Response to Comments of Comcast Corporation and Time Warner Cable Inc. at 70-71, MB Docket No. 14-57 (filed Sept. 23, 2014) (“Because larger businesses and enterprise customers have locations spanning multiple areas and cable footprints, Comcast, TWC, and other cable companies have been unable to offer seamless business service option,” and cannot provide “meaningful competition against incumbent providers”); Public Interest Statement of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership at 35-36, MB Docket No. 15-149 (filed June 25, 2015) (noting that “a provider typically must have a broad regional footprint without significant gaps in coverage areas to serve large enterprises with multiple sites across given geographic regions effectively.”).

²⁶ See Jon Brodtkin, *Comcast failed to install Internet for 10 months then demanded \$60,000 in fees: Tech startup needs a new office because it can't get Comcast Internet*, Ars Technica (Mar. 17, 2016), <http://arstechnica.com/business/2016/03/comcast-failed-to-install-internet-for-10-months-then-demanded-60000-in-fees/> (after 10 months of attempting construction, cable company halted efforts to extend lateral to startup business in the heart of Silicon

Sprint has *** BEGIN HIGHLY CONFIDENTIAL ***
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Second, HFC services are currently limited in capacity to 10 Mbps.²⁸ While these capacities *** BEGIN HIGHLY CONFIDENTIAL ***
[REDACTED]
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Because of bandwidth limitations alone, HFC services represent an insignificant constraint on pricing for the Ethernet services purchased by Sprint. Indeed, over *** BEGIN HIGHLY CONFIDENTIAL ***
[REDACTED]
*** END HIGHLY CONFIDENTIAL ***.³¹

Third, *** BEGIN HIGHLY CONFIDENTIAL ***
[REDACTED]

Valley, due in part to limited recurring revenue associated with HFC service); *see also* Sprint Reply Comments at 20-38; Sprint Direct Case Opposition at 9-15.

²⁷ See Second Carey Decl. ¶ 12; *** BEGIN HIGHLY CONFIDENTIAL ***
[REDACTED] *** END HIGHLY CONFIDENTIAL ***; *see also* *** BEGIN HIGHLY CONFIDENTIAL ***
[REDACTED] *** END HIGHLY CONFIDENTIAL ***

²⁸ See Second Carey Decl. ¶ 8; Mar. 21 AT&T Ex Parte at 10; *** BEGIN HIGHLY CONFIDENTIAL ***
[REDACTED] *** END HIGHLY CONFIDENTIAL ***

²⁹ See, e.g., 2007 Verizon Ex Parte at Attachment D p.6.

³⁰ Second Carey Decl. ¶¶ 8-9.

³¹ *Id.* ¶ 8.

³² *Id.* ¶¶ 9-11; *see also* *** BEGIN HIGHLY CONFIDENTIAL ***
[REDACTED] *** END HIGHLY CONFIDENTIAL ***

[REDACTED]

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While some cable companies *** BEGIN HIGHLY CONFIDENTIAL ***

[REDACTED]

*** END HIGHLY CONFIDENTIAL ***³⁶

Despite *** BEGIN HIGHLY CONFIDENTIAL ***

[REDACTED] *** END HIGHLY CONFIDENTIAL ***³⁷ This does not suggest, as the ILECs have claimed, that special access will soon become obsolete. First, the customers for whom these services *** BEGIN HIGHLY CONFIDENTIAL ***

[REDACTED] *** END HIGHLY CONFIDENTIAL ***³⁸ Second, Sprint is increasingly confronting situations where *** BEGIN HIGHLY CONFIDENTIAL ***

[REDACTED] *** END HIGHLY CONFIDENTIAL *** For these customers, the purchase of enterprise communications services supported by an EoHFC connection hardly reflects a technology-driven increase in special access competition. To the

³³ Second Carey Decl. ¶¶ 9-11.

³⁴ *Id.*

³⁵ *Id.* ¶ 13.

³⁶ *Id.*

³⁷ *Id.* ¶¶ 12, 14.

³⁸ *Id.* ¶¶ 9-11; *see also* Reply Comments of TDS Metrocom, LLC at 17-18, WC Docket No. 05-25 (filed Feb. 19, 2016) (“TDS Reply Comments”) (HFC only appropriate for “very small” businesses with “fewer than 10 employees” that do not “depend on cloud-based back office services”).

³⁹ Second Carey Decl. ¶ 14.

contrary, it reflects the deadweight loss created by inefficient monopoly pricing in the dedicated broadband marketplace.

Sprint’s experience with EoHFC services is consistent with reports from cable providers. As cable companies acknowledge, many businesses continue to purchase fiber-based services, or both HFC and fiber-based services, to the point where cable companies *themselves* do not consider HFC networks a substitute for fiber networks, and will analyze buildout economics for each network separately.⁴⁰ Moreover, while Verizon and ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** assert that they have responded to HFC offerings with ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****⁴¹ neither company mentions that they have reduced *special access* pricing in response to the availability of HFC. Indeed, the claim that dedicated services are no longer in demand cannot be squared with evidence provided by cable companies showing that ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****⁴²

III. Even Assuming Improvements in Performance and Availability, HFC Services Will Not Bring Effective Competition to the Special Access Marketplace.

As the Commission evaluates the impact of HFC services on the special access marketplace, Sprint urges it to recognize the many ways HFC services have fallen short of the lofty expectations set by the ILECs earlier in this proceeding. Moreover, in evaluating the potential of these services to increase special access competition in the future, Sprint urges the Commission to treat with skepticism the claim that HFC services will one day deliver higher capacity services—a capability that, in any event, would take years to achieve.⁴³ To appropriately weigh the importance of HFC network availability to special access competition, the Commission must also consider (1) demand-side increases in capacity and quality of service requirements, and (2) the likelihood that an increase in the availability and uptake of HFC services would in fact generate effective competition to ILEC special access in most locations.

⁴⁰ TWC Ex Parte at 4 (TWC “undertakes essentially the same build analysis” that it employs for its fiber networks “if a potential business services customer requests a DOCSIS-based service at a location that is not reached by TWC’s HFC network.”); *see also* ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****

⁴¹ Mar. 1 Verizon Ex Parte (describing its unpublicized “Titan” program); *see also* ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****

⁴² TWC Ex Parte ***** BEGIN HIGHLY CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****

⁴³ *See id.* at 2 n.2 (describing ongoing upgrade of networks to DOCSIS 3.0).

First, even with improvements in speed and capacity, HFC networks may not be capable of meeting the increasing demands of enterprise connectivity. Sprint’s enterprise customers increasingly require services that can support HD video, interactive applications, and a larger number of connected devices, each consuming greater amounts of data than before.⁴⁴ These applications not only require more bandwidth, but are also much more sensitive to latency and jitter. Because wireless usage is experiencing the same trends, Sprint has no assurance that HFC networks will ever grow capable of ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL *****⁴⁵

Second, as explained in the Dr. Zarakas’s attached Declaration, even assuming that HFC become available at every location where an ILEC provides service, the result would be a duopoly in the vast majority of locations with special access demand—specifically ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** of them. Only ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** of all locations would benefit from three providers, with four or more in just ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL *****.⁴⁶ Similar results persist using larger geographic areas: there would be a duopoly in ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** of census blocks where special access services are provided, three competitors in ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** of census blocks, and four or more competitors in just ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL *****.⁴⁷ By assuming that HFC services are available at every location served by an ILEC, the Zarakas analysis, for the sake of argument, significantly overstates the potential reach of coaxial networks. It also overstates the competitive impact of HFC services by assuming that every special access purchaser—including wireless carriers—can substitute HFC for traditional special access, which is not, and likely never will be the case.⁴⁸ As the cable companies acknowledge, both of these assumptions are highly improbable.⁴⁹

An unrealistic, best-case scenario of a distant business broadband duopoly should not deter the FCC from proceeding with essential special access reform today. Indeed, considerable Commission precedent establishes that duopolies cannot provide effective competition. In the *Qwest Forbearance Order*, the Commission rejected the assumption “that a duopoly always constitutes effective competition and is necessarily sufficient to ensure just, reasonable, and

⁴⁴ Second Carey Decl. ¶ 15.

⁴⁵ *Id.*

⁴⁶ Supplemental Zarakas Decl. ¶ 9.

⁴⁷ *Id.* ¶ 10.

⁴⁸ Second Carey Decl. ¶¶ 9, 10, 13, 15.

⁴⁹ *See supra* nn.25, 40, ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** & accompanying text.

nondiscriminatory rates.”⁵⁰ It determined that the AT&T-T Mobile merger would not serve the public interest largely on the basis that a 4-to-3 competitor transaction would diminish wireless competition and harm consumers.⁵¹ In establishing its spectrum screen, the Commission presumed that fewer than three strong competitors in a given geographic market would result in inadequate competition.⁵² Similarly, under the Cable Television Consumer Protection and Competition Act, the Commission relied on evidence that the vast majority of consumers were served by at least three MVPDs before adopting a presumption of effective competition for cable franchises.⁵³ And in this very proceeding, the Commission suspended archaic pricing flexibility triggers based on the presence of a single competitor’s collocated facilities,⁵⁴ squarely rejecting any implication that the presence of “sunk facilities by [just] one competitor [is] sufficient to prevent the incumbent from engaging in anticompetitive behavior.”⁵⁵ As explained by Drs. Besen and Mitchell in this proceeding, numerous economic studies support the Commission’s past conclusions.⁵⁶ Thus, the ILECs’ last-gasp attempt to retain their monopoly rents by repeating their ten-year old HFC predictions fails to establish the existence of effective actual or potential special access competition.

* * *

The data collection and the record evidence in this proceeding confirm that ILECs do not face meaningful, effective competition in the provision of special access services. Cable companies and CLECs have not closed the gap in the ten-plus years this proceeding has been active, nor is there any indication they will do so in the foreseeable future. Accordingly, the Commission should reject the ILECs’ arguments and push past these tired stall tactics. The Commission should expeditiously issue an order that includes a finding of ILEC market power and adopts interim measures on rates, terms and conditions that address the competitive harms that have arisen as a result of ILEC dominance. The Commission should then implement a permanent regime governing ILEC prices and practices that will comprehensively reform the broken special access marketplace.

⁵⁰ *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, Memorandum Opinion and Order, 25 FCC Rcd 8622, 8635-36 ¶ 29 (2010), *aff’d*, *Qwest Corp. v. FCC*, 689 F.3d 1214 (10th Cir. 2012).

⁵¹ *See Applications of AT&T Inc. and Deutsche Telekom AG For Consent to Assign or Transfer Control of Licenses and Authorizations*, Order, 26 FCC Rcd. 16,184, 16,185 ¶ 3 (2011).

⁵² *See Policies Regarding Mobile Spectrum Holdings Expanding the Econ. & Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd. 6133, 6228 ¶ 247 (2014).

⁵³ *See Amendment to the Commission’s Rules Concerning Effective Competition, Implementation of Section 111 of the STELA Reauthorization Act*, Report and Order, 30 FCC Rcd. 6574, 6577 ¶ 4 (2015).

⁵⁴ *Special Access for Price Cap Local Exchange Carriers*, Report and Order, 27 FCC Rcd 10,557, 10,563 ¶ 11 (2012).

⁵⁵ Mar. 21 AT&T Ex Parte at 4.

⁵⁶ *See Besen/Mitchell Decl.* ¶¶ 43-47.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "J. Bagg".

Jennifer Bagg
Paul Margie
Walter Anderson
V. Shiva Goel
Counsel to Sprint Corporation

REDACTED – FOR PUBLIC INSPECTION

**ATTACHMENT A
SUPPLEMENTAL DECLARATION OF WILLIAM P. ZARAKAS**

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Special Access for Price Cap Local Exchange Carriers)	WC Docket No. 05-25
)	
AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services)	RM-10593
)	
Investigation of Certain Price Cap Local Exchange Carrier Business Data Services Tariff Pricing Plans)	WC Docket No. 15-247
)	

Supplemental Declaration of William P. Zarakas

1. My name is William P. Zarakas. I am a Principal with The Brattle Group, an economics consulting firm, where I work primarily on economic and regulatory matters concerning the communications and energy industries. I have been involved in the economic analysis of issues facing these industries for roughly 30 years. I have provided reports and/or testimony before the Federal Communications Commission (FCC) concerning a range of issues, including market share and churn analyses, cost models, foreclosure and bargaining models, and pole attachments matters. I have recently provided a Declaration in WC Docket No. 05-25 and RM-10593,¹ to which my CV was attached.
2. **Zarakas-Gately Declaration.** In the Declaration that I submitted on January 25, 2016 (which I co-authored with Susan M. Gately), we provided market share calculations based on the special access services currently provided by incumbent local exchange

¹ Declaration of William P. Zarakas and Susan M. Gately, appended as Attachment 2 to Comments of Sprint Corporation, WC Docket No. 05-25 (filed Jan. 27, 2016) (“Zarakas-Gately Declaration”).

carriers (ILECs) and competitive providers (CPs). In that Declaration, we combined cable companies and competitive local exchange carriers (CLECs) into a single grouping that we referred to as “CLECs.”² The definition of Competitive Provider used in Appendix A, Mandatory Data Collection, of the Commission’s Order on Reconsideration³ includes wireless providers and other entities subject to the Commission’s jurisdiction. We adopted a “narrower” definition to make clear that our market share analysis included only wireline providers of special access; that is, CLECs and cable companies.⁴

3. To be clear, the market share analysis provided in the Zarakas-Gately Declaration includes *all wireline providers of facilities-based special access services, including both CLECs and cable companies.*⁵ For example, Table 5 in the Zarakas-Gately Declaration indicates that, based on the data then included in the NORC data enclave, three or more CPs (*i.e.*, CLECs and cable providers) provide special access in ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** of the locations (buildings or cell towers) where special access is sold.
4. Based on my forgoing discussion, references to “CLECs” in Tables 4 and 5 of the Zarakas-Gately Declaration can be replaced with “CPs”. For example, in Panel 4B,

² In footnote 2 of the Zarakas-Gately Declaration, we stated that: “We purposely use the term CLEC throughout this Declaration rather than the broader ‘competitive provider’ term defined in the *Data Collection Order*.” Zarakas-Gately Declaration at 3 n.2.

³ *Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, Order on Reconsideration, 29 FCC Red. 11,657 (2014) (“*Data Collection Order on Reconsideration*”).

⁴ In practice, non-wireline special access were not included in the relevant special access files and therefore our alternate CLEC definition was intended to add a level of precision that was not strictly required (and inadvertently added confusion).

⁵ We excluded special access circuits that were leased by CPs from ILECs in the market analyses provided in the Zarakas-Gately Declaration because, in such cases, the CLEC would be providing special access over ILEC facilities.

“Breakdown of Census Blocks With ILEC and CLEC Presence” can be replaced with “Breakdown of Census Blocks With ILEC and CP Presence.” In Panels 5A and 5B, “Number CLEC Providers In Building/Tower” can be replaced with “Number CP Providers In Building/Tower.”

5. **Revised Location Data.** After the Zarakas-Gately Declaration was filed, NORC updated the building/cell tower location data with new information it received from the Commission. In this Supplemental Declaration, I use the most recent data on building/cell tower locations to calculate the degree to which CPs provide special access services on 1) a building/cell tower location basis and 2) a census block basis.
6. The updated location data indicates that special access is sold in ***** BEGIN HIGHLY CONFIDENTIAL ***** **CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** buildings or cell towers located in ***** BEGIN HIGHLY CONFIDENTIAL ***** **CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** census blocks.⁶ Based on this updated data, CPs (*i.e.*, cable companies and CLECs) together provide special access to ***** BEGIN HIGHLY CONFIDENTIAL ***** **CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** building/cell tower locations, which account for about ***** BEGIN HIGHLY CONFIDENTIAL ***** **CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** of all locations where special access services are sold. The updated location data indicates that cable companies provide special access services in ***** BEGIN HIGHLY CONFIDENTIAL ***** **CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL ***** locations (nearly ***** BEGIN HIGHLY CONFIDENTIAL ***** **CONFIDENTIAL ***** ***** END HIGHLY CONFIDENTIAL *****

⁶ I understand that the updated location data is based on modifications to the algorithm used to determine unique locations based on the address and longitude/latitude data provided by respondents. The count of buildings/cell towers included in the Zarakas-Gately Declaration was based on an algorithm using a similar approach, but resulted in a different count of unique locations.

██████████ ***** END HIGHLY CONFIDENTIAL ***** of total locations), and CLECs provide special access service in ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** locations (less than ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** of total locations).⁷

7. Thus, cable companies are providing special access service in approximately ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** of building/cell tower locations served by CPs, and CLECs are providing special access service in approximately ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** of buildings / cell towers served by CPs.⁸

8. *Hypothetical Impact of Potential Cable Competition.* I was asked to analyze the competitive impact of the hypothesis that both ILECs and cable companies may be competitors (actual or potential) at every building/cell tower location where special

⁷ In some cases, both cable companies and CLECs provide special access services to customers located in the same building/cell tower location. Such overlap explains why the sum (***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL *****) of building/cell tower locations where cable companies provide special access (***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL *****) plus the building/cell tower locations where CLECs provide special access (***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL *****) slightly exceeds the total number of building/cell tower locations where cable companies and CLECs provide special access services (***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL *****).

⁸ The calculations are, for cable companies, ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** and, for CLECs, ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL *****. These percentages do not sum to 100% because, as mentioned above, there are instances of overlap (i.e., CLECs and cable companies each provide service to customers located in the same building / cell tower. Of the ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** building/cell tower locations receiving special access service, ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** receive service from cable companies but not CLECs, ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** receive service from CLECs but not cable companies, and the remaining ***** BEGIN HIGHLY CONFIDENTIAL ***** ██████████ ***** END HIGHLY CONFIDENTIAL ***** receive service from both cable companies and CLECs.

access is sold, irrespective of whether or not they actually provide special access service at those locations. This assumption would result in a count of at least two special access competitors at each location.

9. Table 1 indicates that this hypothetical analysis results in only one ILEC and one cable company providing special access services (either actually or potentially) in the vast majority of building/cell tower locations where special access services are sold. Specifically, in this hypothetical, one ILEC and one cable company would potentially offer special access services, with no actual competition from CLEC providers, in *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** *** of the total *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** *** locations where special access services are sold. That is, if cable companies were to sell special access services in every location where the ILEC has special access facilities, there would be an ILEC-cable duopoly in *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** *** of the locations where special access services are sold.
10. The table also indicates that CLECs provide special access in *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** *** building/cell tower locations. Therefore, in this hypothetical, there would be three competitors (*i.e.*, actual or potential competition from an ILEC, a cable company, and a single CLEC) in only *** **BEGIN HIGHLY CONFIDENTIAL** *** [REDACTED] *** **END HIGHLY CONFIDENTIAL** *** of the total building/cell tower locations where special access services are sold. Also in this hypothetical, there would be four or more competitors (*i.e.*, actual or potential competition from an ILEC, a cable company,

and two or more CLECs) in only ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]
***** END HIGHLY CONFIDENTIAL ***** of the building/cell tower locations where special access services are sold. Thus, there would be more than three competitors in ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]
***** END HIGHLY CONFIDENTIAL ***** of the building/cell tower locations where special access services are sold.

11. Table 5 in the Zarakas-Gately Declaration indicated that there were three or more actual providers of special access services in ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]
***** END HIGHLY CONFIDENTIAL ***** of buildings or cell towers where special access service is provided.⁹ Thus, the hypothetical that two competitors would be in place (i.e., an ILEC and a cable company) at every building/cell tower location where special access is sold results in increasing the percentage of building/cell tower locations where there are more than two competitors from ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]
***** END HIGHLY CONFIDENTIAL *****.

12. I provide a similar analysis based on census blocks (instead of building/cell tower locations) in Table 2. The table indicates that, in this hypothetical, there would be no more than two competitors (either actual or potentially, an ILEC and a cable company) in ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END**

⁹ Calculations in Table 5 in the Zarakas-Gately Declaration were based on our estimate of ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** building/cell tower locations where special access is sold. Of these, ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL ***** building/cell tower locations had three or more special access providers; ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY CONFIDENTIAL *****.

HIGHLY CONFIDENTIAL *** of census blocks where special access services are sold. Three competitors (*i.e.*, actual or potential competition from an ILEC, a cable company, and a CLEC) would be present in *** **BEGIN HIGHLY CONFIDENTIAL** *** **[REDACTED]** *** **END HIGHLY CONFIDENTIAL** *** of census blocks and four competitors would be present in an additional *** **BEGIN HIGHLY CONFIDENTIAL** *** **[REDACTED]** *** **END HIGHLY CONFIDENTIAL** *** of census blocks.

13. Table 4 in the Zarakas-Gately Declaration indicated that there were three or more actual providers of special access services in *** **BEGIN HIGHLY CONFIDENTIAL** *** **[REDACTED]** *** **END HIGHLY CONFIDENTIAL** *** of census blocks where special access service is provided,¹⁰ compared to the three or more competitors being present in *** **BEGIN HIGHLY CONFIDENTIAL** *** **[REDACTED]** *** **END HIGHLY CONFIDENTIAL** *** of census blocks under the hypothetical analysis.

¹⁰ Calculations in Table 4 in the Zarakas-Gately Declaration were based on our estimate of *** **BEGIN HIGHLY CONFIDENTIAL** *** **[REDACTED]** *** **END HIGHLY CONFIDENTIAL** *** census blocks where special access is sold. Of these, *** **BEGIN HIGHLY CONFIDENTIAL** *** **[REDACTED]** *** **END HIGHLY CONFIDENTIAL** *** census blocks had three or more special access providers; *** **BEGIN HIGHLY CONFIDENTIAL** *** **[REDACTED]** *** **END HIGHLY CONFIDENTIAL** ***.

Table 1
Level of Competition in Special Access Market
By Building/Cell Tower with Special Access Demand

Number of Special Access Providers	Buildings / Cell Towers Where Special Access Is Provided	
	#	%
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]

Sources and Notes:

[REDACTED]

Table 2
Level of Competition In Special Access Market
By Census Block With Special Access Demand

Number of Special Access Providers	Census Blocks Where Special Access Is Provided	
	#	%
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]

Sources and Notes:

[REDACTED]

REDACTED - FOR PUBLIC INSPECTION

I, William P. Zarakas, declare under penalty of perjury under the law of the United States of America that the foregoing is true and correct to the best of my knowledge and belief.

Executed on March 23, 2016.

A handwritten signature in cursive script, reading "William P. Zarakas", positioned above a horizontal line.

William P. Zarakas

REDACTED – FOR PUBLIC INSPECTION

**ATTACHMENT B
SECOND DECLARATION OF ED CAREY**

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

)	
)	
Special Access for Price Cap Local)	WC Docket No. 05-25
Exchange Carriers)	
)	
AT&T Corporation Petition for)	RM-10593
Rulemaking to Reform Regulation of)	
Incumbent Local Exchange Carrier Rates)	
for Interstate Special Access Services)	
)	
Investigation of Certain Price Cap Local)	WC Docket No. 15-247
Exchange Carrier Business Data Services)	
Tariff Pricing Plans)	

SECOND DECLARATION OF ED CAREY

1. My name is Ed Carey. I am currently a network planner at Sprint Corporation. I have held this position for 2.5 years.
2. As part of my job responsibilities, I negotiate and evaluate wholesale special access contracts whereby Sprint purchases such services from incumbent Local Exchange Carriers (“ILECs”), competitive LECs (“CLECs”), and cable companies. My evaluation includes reviewing the technology provided by the vendors, technically certifying that their services will work with the Sprint network, and negotiating pricing and coverage. Just prior to Sprint, I worked for Level 3 Communications where I was involved in the expansion of Level 3’s fiber optic network, including the addition of buildings and the deployment of Ethernet service and fiber optic transmission equipment including DWDM (dense wave division multiplexing). I served as the technical resource on the Level 3 Sprint Account Team. I was involved in the design, construction, and implementation phases of over 1,500 projects of this type. Prior to Level 3, I spent time with Cisco

Systems and Global Crossing. I was also an Adjunct Professor teaching telecommunications management courses.

3. I submit this Declaration in response to recent suggestions that Ethernet services delivered by cable companies that use fiber connectivity from the headend to the fiber node and coaxial facilities to the customer's location (hybrid fiber/coaxial, or "HFC" services) can be used in the same way that special access services provided by ILECs are used. Based on my experience and knowledge, such suggestions are incorrect. Ethernet over HFC ("EoHFC") or Ethernet over DOCSIS ("EoDOCSIS") services are appropriate only for business customers with basic connectivity needs, and are not available in many locations served by ILEC special access.
4. Sprint currently leases more than one hundred thousand special access circuits nationwide. Sprint uses these circuits as (1) backhaul for its wireless cell sites and (2) to offer enterprise-broadband services. An ILEC provides most of these circuits. Whenever possible, Sprint attempts to obtain special access services from competitive providers, including CLECs and cable companies, in order to avoid the high rates and loyalty provisions that ILECs frequently impose on special access purchasers.
5. Sprint, however, has found it difficult to obtain special access services, especially lower-capacity circuits like DS1s, DS3s, and their Ethernet equivalents, from CLECs and cable companies. Unlike the ILECs, cable companies and CLECs have not deployed ubiquitous facilities that extend to nearly every commercial building in the country.
6. These conditions have not been remedied by the availability of EoHFC services from cable companies. Using both fiber and coaxial facilities, cable companies offer EoHFC services to more business locations than they can reach with their fiber networks alone.

Despite this larger footprint, EoHFC services, like CLEC and cable fiber services, still have a limited impact on Sprint's overall ability to receive competitive pricing for special access services.

7. As an initial matter, EoHFC services are not available at many building locations where Sprint purchases special access from an ILEC. Newer commercial buildings, which are often served by fiber, retailers surrounded by large parking lots, large business locations set back far from roadways, airports, and malls are among the building locations that often lack a coaxial connection, and therefore do not benefit from EoHFC. Moreover, EoHFC services are generally not available at cellular sites.

8. It is also important to realize the limitations of EoHFC services when compared to Ethernet services delivered via fiber or ILEC twisted pair copper. EoHFC services are currently limited in capacity to 10 Mbps. The relatively low capacity of EoHFC services makes them ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]

[REDACTED]

[REDACTED] ***** END HIGHLY CONFIDENTIAL**

*****. *** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED] ***** END HIGHLY**

CONFIDENTIAL *** of Sprint's Ethernet building access and backhaul purchases are

greater than 10 Mbps, including ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]

[REDACTED] ***** END HIGHLY CONFIDENTIAL ***** of Ethernet building access

purchases.

9. ***** BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

*** END HIGHLY CONFIDENTIAL ***

10. The *** BEGIN HIGHLY CONFIDENTIAL *** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *** END

HIGHLY CONFIDENTIAL ***

11. Attempting to use these applications would also impact other applications in use over the same EoHFC connection. Customer networks are typically designed such that multiple applications use the same Ethernet circuit. As delayed and damaged packets are received or packets are lost, there are requests made to resend the packets. These constant requests to resend and the subsequent resending of packets can consume the available bandwidth and have a damaging impact on other applications attempting to use the same EoHFC connection.

12. Although EoHFC *** **BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *** END

HIGHLY CONFIDENTIAL ***

13. Sprint has also found it *** **BEGIN HIGHLY CONFIDENTIAL ***** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] ***

END HIGHLY CONFIDENTIAL ***

14. *** BEGIN HIGHLY CONFIDENTIAL *** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *** END HIGHLY CONFIDENTIAL ***

15. Sprint's enterprise customers are increasingly using services that consume large amounts of bandwidth, and also interactive services, such as video conferencing, that benefit significantly from lower latency and other service quality improvements. Similarly, Sprint's wireless customers are also consuming greater quantities of data, and are increasingly using their mobile devices for video services and bandwidth-intensive interactive services. Because of these trends, Sprint has no assurance that EoHFC services will satisfy the performance needs of *** BEGIN HIGHLY

CONFIDENTIAL *** [REDACTED]

[REDACTED]

[REDACTED] *** END HIGHLY

CONFIDENTIAL ***

REDACTED - FOR PUBLIC INSPECTION

I declare under penalty of perjury under the law of the United States of America that the foregoing is true and correct to the best of my knowledge and belief.

Executed on March 24, 2016.

A handwritten signature in black ink, consisting of a stylized 'E', a 'C', and a 'A' with a long horizontal stroke at the end.

Ed Carey