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February 11, 2013

VIA COURIER AND ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW, Room TW-A325
Washington, DC 20554

Re: *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, WC Docket No. 05-25, RM-10593*

Dear Ms. Dortch:

On behalf of BT Americas Inc., Cbeyond Communications, LLC, EarthLink, Inc., Integra Telecom, Inc., Level 3 Communications, LLC and tw telecom inc. (collectively, the “Joint Commenters”), please find enclosed two copies of the redacted version of the Joint Commenters’ comments on Sections IV.A and C of the Further Notice of Proposed Rulemaking released on December 18, 2012 in the above-referenced proceeding¹ (the “Comments”). The Comments contain information that the Wireline Bureau has deemed highly confidential under the *Second Protective Order*² in this proceeding, including both highly confidential information that was previously submitted into the record by other parties and highly confidential information that is being submitted for the first time in the Comments.

¹ *Special Access for Price Cap Local Exchange Carriers; AT&T Corp. 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. 16318 (2012).

² *In the Matter of Special Access for Price Cap Local Exchange Carriers*, Second Protective Order, 25 FCC Rcd. 17725 (2010) (“*Second Protective Order*”); *see also Special Access for Price Cap Local Exchange Carriers*, Letter from Sharon E. Gillett, Chief, Wireline Competition Bureau to Paul Margie, Wiltshire & Grannis LLP, 26 FCC Rcd. 6571 (2011) (supplementing the *Second Protective Order*); *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, 27 FCC Rcd. 1545 (2012) (further supplementing the *Second Protective Order*).

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Pursuant to the procedures outlined in the *Modified Protective Order*³ and *Second Protective Order*,⁴ as modified by the instructions in the second data request in this proceeding,⁵ one copy of the highly confidential version of the Comments has been served upon each party other than the Joint Commenters who submitted highly confidential information that appears in the Comments, the original highly confidential version of the Comments is being filed with the Secretary's Office under separate cover, two copies of the highly confidential version of the Comments will be delivered to Andrew Multz of the Pricing Policy Division of the Wireline Competition Bureau, and one machine-readable copy of the redacted version of the Comments will be filed electronically via ECFS. In addition, pursuant to a request from members of the Wireline Competition Bureau staff, one copy of the highly confidential version of the Comments will be delivered to Derian Jones of the Pricing Policy Division of the Wireline Competition Bureau.

Please do not hesitate to contact me at (202) 303-1111 if you have any questions regarding this submission.

Respectfully submitted,

/s/ Thomas Jones

*Counsel for BT Americas, Cbeyond, EarthLink,
Integra, Level 3 and tw telecom*

Enclosure

³ See *In the Matter of Special Access for Price Cap Local Exchange Carriers*, Modified Protective Order, 25 FCC Rcd. 15168, ¶¶ 5, 14 (2010).

⁴ See *Second Protective Order* ¶ 15.

⁵ See *Competition Data Requested in Special Access NPRM*, Public Notice, WC Docket No. 05-25, RM-10593, at 21 (rel. Sept. 19, 2011) (“[P]lease provide those copies of confidential and highly confidential filings that are to be delivered to staff of the Pricing Policy Division to Andrew Multz instead of Marvin Sacks.”)

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**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Special Access Rates 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
)	

**COMMENTS OF
BT AMERICAS, CBEYOND, EARTHLINK, INTEGRA, LEVEL 3 AND TW TELECOM**

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TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION AND SUMMARY.....	1
II. THE COMMISSION SHOULD ADOPT RULES NOW TO DIMINISH THE HARMFUL EFFECTS OF INCUMBENT LEC EXCLUSIONARY PURCHASE ARRANGEMENTS.....	11
A. Incumbent LECs Possess Overwhelming Market Shares, and Competitors Face High Barriers to Entry, in the Provision of DS1 and DS3 Special Access Services.....	14
B. Incumbent LEC Exclusionary Purchase Arrangements Prevent Competition from Developing Without Yielding Any Identifiable Efficiencies or Other Benefits.....	20
1. Incumbent LEC Exclusionary Purchase Arrangements Effectively Require Competitors to Purchase a Large Proportion of Their Special Access Demand from Incumbent LECs.....	20
2. Incumbent LEC Exclusionary Purchase Arrangements Tie the Sale of Services That Are or Might Be Subject to Competitive Supply to the Sale of Services That Are Not Subject to Competitive Supply.....	30
3. Incumbent LEC Exclusionary Purchase Arrangements Harm Competition and Consumer Welfare.....	33
4. Incumbent LEC Exclusionary Purchase Arrangements Do Not Have Countervailing Efficiency Justifications.....	34
5. Antitrust Precedent Supports the Conclusion that Incumbent LEC Exclusionary Purchase Arrangements Are Anticompetitive and Harm Consumer Welfare.....	36
C. Incumbent LEC Exclusionary Purchase Arrangements Undermine the Policy Goals of Section 706.....	40
D. The Commission Should Take Several Steps Now to Address the Harm Caused by Incumbent LEC Exclusionary Purchase Arrangements.....	42

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III.	THE COMMISSION SHOULD UTILIZE A RELIABLE AND ADMINISTRABLE MEANS OF ASSESSING THE LEVEL OF ACTUAL AND POTENTIAL COMPETITION IN RELEVANT SPECIAL ACCESS MARKETS.....	47
A.	The Commission Should Adhere to its Established Market Power Framework and, Where Appropriate, Panel Regression Analysis, in Assessing the Level of Actual Competition in the Provision of Special Access Services.....	48
1.	Defining Relevant Product Markets.....	49
2.	Defining Relevant Geographic Markets	59
3.	Identifying Market Participants	62
4.	Applying the Established Market Power Framework to Measure Actual Competition in Relevant Special Access Markets	64
5.	Applying Panel Regressions to Relevant Special Access Markets.....	72
B.	There is No Reliable Basis for the Commission to Predict That Significant Competitive Entry Will Occur in Any Relevant Special Access Market.	74
1.	Applying the Market Power Framework to Measure Potential Competition in Relevant Special Access Markets	75
2.	Applying Panel Regression Analysis to Measure Potential Competition in Relevant Special Access Markets	79
IV.	CONCLUSION.....	82

REDACTED – FOR PUBLIC INSPECTION

**Before the
Federal Communications Commission
Washington, D.C. 20554**

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

**COMMENTS OF
BT AMERICAS, CBEYOND, EARTHLINK, INTEGRA, LEVEL 3 AND TW TELECOM**

BT Americas Inc. (“BT”), Cbeyond Communications, LLC (“Cbeyond”), EarthLink, Inc. (“EarthLink”), Integra Telecom, Inc. (“Integra”), Level 3 Communications, LLC (“Level 3”), and tw telecom inc. (“tw telecom”) (collectively, the “Joint Commenters”), through their undersigned counsel, hereby submit these comments in response to Sections IV.A and C of the Further Notice of Proposed Rulemaking released on December 18, 2012 in the above-referenced proceeding.¹

I. INTRODUCTION AND SUMMARY

The Joint Commenters applaud the Commission for adopting the *Data Request Order* and *Further NRPM*. This combined item is another step toward completion of the Commission’s review of the regulatory regime governing incumbent LEC special access services. It is no secret that this step is long overdue, however, since the Commission has now been reviewing its special

¹ *Special Access for Price Cap Local Exchange Carriers; AT&T Corp. 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. 16318 (2012). In these comments, the Report and Order is referred to as the “*Data Request Order*.” The Further Notice of Proposed Rulemaking is referred to as the “*Further NPRM*.”

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access rules for a decade. The Commission must therefore move forward as quickly as possible to complete the final steps in this proceeding. Those steps include working closely with the Office of Management and Budget (“OMB”) to complete the review of the data request pursuant to the Paperwork Reduction Act, collecting and analyzing the requested data, and reaching final conclusions as to the appropriate regulatory regime for incumbent LEC special access services. It is well within the Commission’s power to complete this process and issue final rules in this proceeding by the summer of 2014. It must do everything in its power to do so.

By now it should be beyond dispute that the regulatory treatment of special access has broad implications for American businesses and the U.S. economy. Special access service is a “general purpose technology” used as a platform for innovation, investment, and competition in virtually every sector of the economy. High prices and suppressed competition in this market and in downstream business broadband service markets are costing U.S. businesses and consumers hundreds of thousands of jobs and billions of dollars in consumer welfare.² These costs mount every month that passes without the adoption of appropriate constraints on incumbent LECs’ abuse of their market power.

While the incumbent LECs will undoubtedly argue that there is no need to address this problem, they take an entirely different view when operating in countries where they lack the enormous advantages of incumbency. For example, in a 2011 filing with Ofcom, the

² See Susan M. Gately *et al.*, Economics and Technology, Inc., *Regulation, Investment and Jobs: How Regulation of Wholesale Markets Can Stimulate Private Sector Broadband Investment and Create Jobs*, at 1-3, 6-11 (dated Feb. 2010) (attached to Letter from Harold J. Feld, Legal Director, Public Knowledge; William Weber, Chief Administrative Office, Cbeyond; Anthony Hansel, Assistant General Counsel, Covad; Russell Merbeth, Assistant General Counsel, Integra; William A. Haas, Vice President Public Policy & Regulatory, PAETEC; Don Shephard, Vice President, Federal Regulatory Affairs, tw telecom, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 09-51; WC Docket Nos. 05-25, 06-172, 07-97, 09-135, 09-222 (filed Feb. 12, 2010)).

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telecommunications regulator in the United Kingdom, Verizon explained that “Verizon holds the view that continued regulatory controls must remain in place to safeguard access to the necessary wholesale inputs and thereby support competition to the benefit of customers.”³ Verizon went on to explain that Ofcom should adopt regulations—including rate regulations—necessary to ensure that competitors have access to incumbent LEC local transmission facilities on reasonable terms and conditions:

As a general principle, Verizon considers that the prices of core access products should be as low as possible in order to facilitate a genuinely competitive marketplace and drive down prices for customers. It is clear that the most effective way to achieve this is to ensure that operators who have [significant market power] in the relevant markets adhere to [price] controls.⁴

The benefits of these policies need not and should not be limited to businesses and consumers located in *other* countries. The Commission should follow Verizon’s advice to ensure that “necessary wholesale inputs,” such as DS1 and DS3 as well as Ethernet and other packet-mode special access services, are available in *this* country on reasonable rates, terms and conditions.

Addressing Incumbent LEC Exclusionary Conduct. The Commission should begin by addressing the exclusionary effects of incumbent LEC special access purchase arrangements (hereinafter referred to as “exclusionary purchase arrangements”). These arrangements take many forms, including generic tariff offerings, contract tariffs and commercial agreements, but they all contain loyalty and tying provisions that are unreasonable and that violate the prohibition against unreasonable conduct by common carriers in Section 201(b) of the Communications

³ See Verizon Business Response to Ofcom – BCMR Call for Inputs, at 1 (June 2011), available at <http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr-inputs/responses/Verizon.pdf>.

⁴ *Id.* at 2-3.

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Act.⁵ As explained below, the Commission has held that it may enforce that provision against any carrier, regardless of whether it has market power.

As Dr. Stanley Besen and Dr. Bridger Mitchell—two leading experts in competition and pricing in the telecommunications industry—explain in a paper filed as Appendix A to these comments, exclusionary purchase arrangements are especially harmful to competition when imposed by a firm with a high market share in a market characterized by high entry barriers.⁶ The markets for DS1 and DS3 special access services—the services encompassed by the incumbent LEC exclusionary purchase arrangements—clearly meet these criteria. The Commission, the Department of Justice (“DOJ”), and the Government Accountability Office (“GAO”) have all concluded that incumbent LECs have extremely high market shares in the provision of DS1 and DS3 special access services. In the *Data Request Order*, the Commission repeated this conclusion, observing that non-incumbent LEC competitors (hereinafter referred to as simply “competitors”) serve only “a relatively small proportion of all locations that have special access.”⁷ In addition, data recently filed in this proceeding further support these conclusions. Moreover, the Commission has long held that the provision of DS1 and DS3 services is characterized by extremely high entry barriers.

As Drs. Besen and Mitchell explain, the incumbent LECs’ exclusionary purchase arrangements perpetuate and exploit the incumbent LECs’ position in the markets for DS1 and

⁵ 47 U.S.C. § 201(b). The Communications Act of 1934, 47 U.S.C. §§ 151 *et seq.* (“Communications Act” or “Act”), was amended by the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (“1996 Act”).

⁶ See generally Stanley M. Besen and Bridger M. Mitchell, “Anticompetitive Provisions of ILEC Special Access Arrangements” (dated Feb. 11, 2013) (attached hereto as “Appendix A”) (“*Besen and Mitchell Paper*”).

⁷ *Data Request Order* ¶ 25.

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DS3 special access services by (1) forcing competitors to purchase a large proportion of their special access demand from incumbent LECs and (2) tying the sale of special access services (and sometimes other services) that are or might be subject to competitive supply to the sale of special access services that are not subject to competitive supply. These arrangements harm competition and result in higher prices for special access services by: (1) causing demand for incumbent LEC DS1 and DS3 special access services to become less elastic, thereby giving the incumbent LECs the incentive and ability to increase rates for these services without the threat of losing sales to alternative providers of special access services; (2) depriving competitors of the ability to expand their operations to achieve economies of scale, thereby requiring those competitors to increase their prices; and (3) diminishing competitors' investment in research and development. At the same time, there is no efficiency justification for these arrangements. Moreover, by stifling competitive deployment of local fiber transmission facilities and suppressing demand for Ethernet and other packet-mode special access services, the incumbent LECs' exclusionary purchase arrangements undermine the goal of increased deployment and adoption of advanced services set forth in Section 706 of the 1996 Act.

In light of the incumbent LECs' high market share and the existing high barriers to entry into the provision of DS1 and DS3 services, the Commission need not and should not await the completion of the upcoming data gathering and review process before adopting regulations that address the effects of the incumbent LEC exclusionary purchase arrangements. As Drs. Besen and Mitchell recommend, the Commission should, among other things, promptly adopt regulations that: (1) limit the size of the volume commitment that an incumbent LEC may require as a condition of providing a discount or other benefit; (2) prevent incumbent LECs from using unjustified termination penalties as a means of engaging in anticompetitive conduct; and

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(3) require that each incumbent LEC offers, throughout its territory and across its DS1 and DS3 service offerings, any purchase arrangement that it offers for any DS1 or DS3 special access service in any part of its service area. Taken together, these basic protections would increase alternative wholesale providers' opportunity to compete for the provision of special access services. The resulting benefits in the form of investment, innovation, job creation and lower prices will contribute to economic growth.

Analyzing Incumbent LEC Market Power. While the Commission must address the incumbent LECs' exclusionary practices as soon as possible, it must also of course address the incumbent LECs' high monthly recurring prices for DS1 and DS3 special access services as well as the high prices that many incumbent LECs charge for Ethernet and other packet-mode special access services. While the record already supports firm conclusions regarding incumbent LEC market share and entry barriers in the provision of DS1 and DS3 services, the Joint Commenters nevertheless support the Commission's decision to proceed with an extensive mandatory data request as a means of developing an even more comprehensive factual record regarding competitors' deployment of facilities and the prices charged for special access services by both incumbent LECs and competitors.

Actual Competition. The Commission states in the *Further NPRM* that it intends to assess the level of both actual and potential competition in relevant markets by utilizing a combination of the established market power framework and panel regressions. Given the extent to which these analytical frameworks overlap, the Joint Commenters suggest that the Commission choose either the market power framework or panel regressions rather than apply both frameworks. It would be simpler for the Commission to apply the market power framework, although it may be possible for the Commission to utilize panel regressions *in lieu* of

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the market power framework. In order for the Commission to utilize panel regressions, it would need to overcome significant methodological challenges, as discussed below.

In any event, both of these methodologies require that the Commission define relevant product and geographic markets. In so doing, the Commission should adhere to certain bedrock principles. For example, in defining product markets, the Commission should, among other things, (1) exclude “best efforts” services, such as cable modem services, from any relevant product market for dedicated special access services; (2) consider utilizing the capacity of services as a simplified means of defining markets; (3) treat channel termination and transport services as separate product markets where, as with DS1 and DS3 services, those two services are offered separately at different prices but not treat these components as separate product markets where, as with Ethernet, channel termination and transport are offered on an integrated basis and at a single price; and (4) treat services sold to wholesale and retail purchasers as belonging to different product markets.

In defining geographic markets, the Commission should determine the geographic area in which a service provider’s network must be located in order to offer a competitive service in a relevant product market at a particular location. Given the barriers to extending the reach of fiber networks to new locations, it is likely that the Commission will need to define the relevant geographic markets for DS1, DS3 as well as mid- and low-capacity Ethernet and other packet-mode services as the commercial building or particular transport route where the service is demanded. The Commission will also need to aggregate these relevant geographic markets into larger areas (*e.g.*, wire centers) subject to similar levels of competition.

The Commission must also identify market participants. In so doing, it should only consider firms that utilize their own transmission facilities. Firms that rely on leased incumbent

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LEC facilities should not qualify as market participants. Moreover, the Commission should only count as market participants those firms with facilities that are capable of providing services in the relevant product market.

The Commission would need to account for different issues when applying the market power test as opposed to regression analysis to assess the level of actual competition among market participants in relevant markets. When utilizing the market power test, the Commission would need to assess market shares. While it is already clear, as explained, that incumbent LECs have very high market shares in the provision of DS1 and DS3 services across their territories, it may be useful for the Commission to identify variations in market shares in different locations. The Commission should measure market shares by counting facilities that can be used to provide the service in the relevant market, even if the facilities are not yet used for this purpose. In all relevant markets, the Commission should presume that the presence of a single competitor is insufficient to discipline incumbent LEC conduct.

The Commission must also analyze demand and supply elasticity and the effect of incumbent LECs' structural advantages that yield lower costs when providing special access services. In assessing elasticities of demand and supply, it is especially important that the Commission account for the harmful effects of incumbent LEC exclusionary purchase arrangements as well as the high barriers to extending the reach of local transmission facilities. These factors combine to dramatically limit both elasticities of demand and supply in special access markets.

Once the Commission has identified relevant markets in which incumbent LECs have market power, it will need to compare incumbent LEC prices in those markets with suitable benchmarks for reasonable prices. In the case of DS1 and DS3 services, the Commission could

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use prices for unbundled network elements (“UNEs”) as benchmarks. In the case of Ethernet and packet-mode services, the Commission could compare incumbent LEC wholesale prices with the wholesale prices charged by other incumbent LECs and by competitors, and with the retail prices charged by incumbent LECs and competitors for these services. These comparisons will enable the Commission to determine the extent to which incumbent LECs are charging supra-competitive prices for special access services.

Reliance on panel regressions to assess the level of actual competition in relevant special access markets implicates a different set of considerations. It is theoretically possible for the Commission to use panel regressions to identify the market conditions in which incumbent LECs are able to maintain supra-competitive prices in a relevant market. To do so, however, the Commission would need to account for a wide range of variables. For example, it would need to somehow exclude competition from firms that provide services via leased incumbent LEC facilities. It would also need to account for the fact that, as discussed, incumbent LEC exclusionary purchase arrangements artificially inflate prices even beyond their already high levels. It may also find that incumbent LEC prices generally do not vary from one location to another and that, where they do vary, the differences are not caused by competitive conditions as much as the specific non-price benefits incumbents receive from a discount arrangement negotiated with a particular customer. The Commission will need to account for these and other factors.

Potential Competition. Finally, assessing the level of potential competition would again require that the Commission account for the differences between the market power framework and panel regressions. But the result of any such analysis should already be clear: there is simply no reliable basis for predicting that there will be significant entry into any relevant special access

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market in which incumbent LECs possess market power. Under the market power framework, the Commission only considers future entry relevant if it would be timely, likely and of sufficient scale to counteract incumbent LECs' exercise of market power. The reality is that the barriers to entry into special access markets continue to be extremely high and that incumbent LEC exclusionary purchase arrangements essentially lock up demand and restrict the opportunities for entry. These facts alone should limit the Commission's confidence that entry is likely to occur in a particular circumstance. In addition, the Commission has a long history of predicting future competition in the special access market, but every one of those predictions has been proven to be wrong. There is therefore no basis for predicting that future entry into a special access market in which the incumbent LECs have market power will be timely, likely and of sufficient scale to counteract incumbent LECs' exercise of market power.

Nor would it be possible for the Commission to rely on panel regressions to predict circumstances in which entry will occur in the future. Utilizing panel regressions in this manner is significantly more difficult than would be the case for analyzing actual competition because the factors affecting future entry are more numerous and complex. Most importantly, the Commission would need to account for the effects of incumbent LEC exclusionary purchase arrangements. These effects largely determine the circumstances in which entry occurs, and they govern a large percentage of the special access services purchased in this country. It is not at all clear that the Commission could control for these effects. The Commission would also need to account for a wide range of variables across geographic areas that affect entry, including differences in the terms and conditions for obtaining access to commercial buildings, to public rights of way, and to utility-owned poles, ducts and conduits. It would also need to account for

differences in labor costs, building density and other factors that affect the cost of deploying fiber.

In the end, the far more sensible approach to potential competition would be for the Commission to conclude—in light of the significant barriers to entry and the Commission’s long history of incorrect predictions of future entry—that there is no basis for predicting timely entry into relevant special access markets in which incumbent LECs are dominant. Instead, the Commission should promptly adopt protections against the harmful effects of incumbent LEC exclusionary purchase arrangements discussed above and, of course, other regulations needed to constrain incumbent LEC abuse of market power. After those protections have been in place for a period of time, the Commission can reassess the level of actual as well as potential competition in the market.

II. THE COMMISSION SHOULD ADOPT RULES NOW TO DIMINISH THE HARMFUL EFFECTS OF INCUMBENT LEC EXCLUSIONARY PURCHASE ARRANGEMENTS.

In the *Further NPRM*, the Commission states that it plans to gather further information regarding the terms and conditions of incumbent LEC special access purchase arrangements and to engage in further analysis of the effect of these terms and conditions on competition in relevant special access markets.⁸ As explained in Section III *infra*, the Joint Commenters support a data-intensive review of the relevant special access product markets. Nevertheless, the Commission need not and should not wait until it has concluded its market analysis to begin to curb incumbent LECs’ harmful exclusionary practices in the market for special access services.

The Commission has the authority to adopt rules now to address these harms. The existing record demonstrates that incumbent LECs have induced a large percentage of wholesale

⁸ *Id.* ¶¶ 91-93.

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purchasers of special access services to enter into tariffed discount plans, contract tariffs, and non-tariffed commercial agreements that contain anticompetitive terms and conditions (*i.e.*, exclusionary purchase arrangements). Many of these terms and conditions are patently unreasonable in violation of Section 201(b) of the Act.

Under the U.S. Communications Act, the Commission may adopt regulations designed to limit the harmful effects of these exclusionary purchase arrangements even without proof that the incumbents have market power in the provision of DS1 and DS3 special access services. Indeed, “the Commission has never previously refrained from enforcing sections 201 and 202 against common carriers, even when competition exists in a market.”⁹ Rather, “where the Commission has reclassified carriers as ‘non-dominant’ because they lack market power, . . . the Commission has continued to require compliance with sections 201 and 202.”¹⁰

In any event, as explained below, there is ample evidence to support the conclusion that incumbent LECs *are* dominant in the provision of DS1 and DS3 special access services. Specifically, incumbent LECs possess overwhelming market shares in the facilities-based provision of DS1 and DS3 special access services, and these market shares are extremely durable

⁹ *In the Matter of Personal Communications Industry Association’s Broadband Personal Communications Services Alliance’s Petition for Forbearance for Broadband Personal Communications Services et al.*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd. 16857, ¶ 17 (1998) (“*PCIA Forbearance Order*”). The Commission has often acted to prohibit anticompetitive conduct absent a market power finding. *See, e.g., In the Matter of Exclusive Service Contracts for Provision of Video Services in Multiple Dwelling Units and Other Real Estate Developments*, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd. 20235, ¶ 38 (2007) (prohibiting exclusive contracts between all MVPDs and MDU owners regardless of whether a given MVPD possesses market power); *In the Matter of Promotion of Competitive Networks in Local Telecommunications Markets*, Report and Order, 23 FCC Rcd. 5385 (2008) (extending MDU exclusivity prohibition to telecommunications carriers regardless of whether a given telecommunications carrier possesses market power).

¹⁰ *PCIA Forbearance Order* ¶ 17.

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because of the high entry barriers faced by competitors. As Drs. Besen and Mitchell explain, substantial and enduring market share combined with high entry barriers gives a firm the ability to stifle future competition by imposing exclusionary loyalty and tying arrangements on their customers.¹¹ This is exactly what the incumbent LECs have done.

The Commission should act as soon as possible to adopt rules designed to diminish the harmful effects of the incumbent LECs' exclusionary terms and conditions. The Commission should not wait to gather further data and analyze that data. The process of finalizing and obtaining OMB approval for the data request, collecting information submitted in response thereto, conducting an extensive market analysis based on this information, and adopting comprehensive final rules will take more than a year.¹² Meanwhile, each month that passes is another month in which American businesses must make do without the benefits of a truly competitive business broadband marketplace.¹³ There is simply no reason for the Commission to stand by and do nothing while this harm continues. Prompt action will establish the preconditions for what will hopefully be increased competition in the future, potentially yielding very large benefits to consumer welfare.

¹¹ See *Besen and Mitchell Paper* ¶ 13.

¹² See, e.g., Comments of Cbeyond, Integra, EarthLink, Level 3 and tw telecom, GN Docket No. 12-353, at 2, 6-13 (filed Jan. 28, 2013) (setting forth a timeline under which the Commission would adopt its final rules in spring 2014).

¹³ See Comments of the Office of Advocacy, U.S. Small Business Administration, WT Docket No. 12-69; WC Docket Nos. 10-188, 05-25; GN Docket No. 09-51, RM-11358, at 5 (filed May 24, 2012) (“Broadband remains an indispensable input for growing businesses. . . . [P]reserving and promoting competition in the business broadband market is essential in order to provide small businesses with affordable access and choice regarding the services they need to grow and create new jobs.”); *id.* (“[T]he FCC’s special access docket requires particularly urgent attention.”).

A. Incumbent LECs Possess Overwhelming Market Shares, and Competitors Face High Barriers to Entry, in the Provision of DS1 and DS3 Special Access Services.

The fundamental characteristics of the markets for facilities-based DS1 and DS3 special access services have long been understood. Incumbent LECs possess ubiquitous networks, allowing them to provide such services to every commercial building in the country. Any company seeking to compete with an incumbent LEC by constructing its own facilities to a given location faces exceptionally high barriers that often preclude entry.¹⁴ Thus, incumbent LECs have managed to retain overwhelming market shares in the provision of relatively low capacity services (such as DS1s and DS3s) that show no signs of falling. Year after year, the Commission, the DOJ, and numerous independent researchers have reaffirmed these conclusions.

In its 2005 review of the proposed SBC-AT&T and Verizon-MCI transactions, for example, the DOJ found that “[f]or the vast majority of commercial buildings in its respective territory, either SBC or Verizon is the only carrier that owns a last-mile connection to the

¹⁴ As the Commission explained in the *Triennial Review Remand Order*, there are “substantial fixed and sunk costs” involved in deploying competitive transport and loop facilities. *In the Matter of Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand, 20 FCC Rcd. 2533, ¶¶ 72-77, 150-154 (2005) (“*Triennial Review Remand Order*” or “*TRRO*”). These costs include, among other things, “the costs of obtaining rights-of-way and other necessary legal permissions, the costs of the actual fiber-optic facilities, and the costs of physical deployment itself.” *Id.* ¶ 150, n.149. In addition, competitors also face “substantial operational barriers” to deploying their own facilities, such as “problems in securing rights-of-ways from local authorities” and “construction moratoriums which prevent the grant of a franchise agreement to construct new facilities in the public rights-of-way.” *Id.* ¶ 151. tw telecom’s experience is particularly informative. For years, tw telecom has invested billions of dollars of capital—often amounting to between 23 and 25 percent of its annual revenues—in order to construct fiber facilities to commercial buildings. Yet, even at this aggressive and sustained level of investment, tw telecom has only been able to construct last-mile facilities to approximately 17,000 commercial buildings nationwide.

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building.”¹⁵ The DOJ explained that competitive entry is “difficult, time-consuming, and expensive,” and that “firms typically only build a connection after they have secured a customer contract of sufficient size to justify the anticipated construction costs.”¹⁶ The FCC similarly found that there was “little potential for competitive entry” because of the high entry barriers faced by competitors.¹⁷

Soon thereafter, a report by the GAO reached similar conclusions.¹⁸ The GAO studied 16 urban markets and found that competitors had deployed loop facilities to, on average, less than 6 percent of the buildings with demand of a DS1 or greater in those markets.¹⁹ The GAO found that nearly all of the loops that competitors had deployed were to buildings with demand far

¹⁵ Opinion, *United States v. SBC Communications, Inc. & AT&T Corp.; United States v. Verizon Communications, Inc. & MCI, Inc.*, Civil Action No. 05-2102, at 7 (D.D.C. Mar. 29, 2007) (citing Complaint, *United States v. SBC Communications, Inc. & AT&T Corp.*, Civil Action No. 05-2012, ¶ 15 (D.D.C. filed Oct. 27, 2005) (“*DOJ SBC-AT&T Complaint*”); Complaint, *United States v. Verizon Communications, Inc. & MCI, Inc.*, Civil Action No. 05-2012, ¶ 15 (D.D.C. filed Oct. 27, 2005) (“*DOJ Verizon-MCI Complaint*”).

¹⁶ *Id.* at 10 (citing *DOJ SBC-AT&T Complaint* ¶ 27). The DOJ identified five factors that affect whether a competitive LEC can build a new last-mile facility to a particular location: “(1) the proximity of the building to the CLEC’s existing network interconnection points; (2) the capacity required at the customer’s location (and thus the revenue opportunity); (3) the availability of capital; (4) the existence of physical barriers, such as rivers and railbeds, between the CLEC’s network and the customer’s location; and (5) the ease or difficulty of securing the necessary consent from building owners and municipal officials.” *Id.*

¹⁷ *In the Matter of SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd. 18290 ¶ 39 (2005) (“*SBC-AT&T Merger Order*”), *In the Matter of Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd. 18433 ¶ 39 (2005) (“*Verizon-MCI Merger Order*”).

¹⁸ See GAO, *FCC Needs to Improve Its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services*, GAO 07-80 (rel. Nov. 2006) (“*GAO Report*”).

¹⁹ *Id.* at 19-20.

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greater than a single DS1, and that competitive entry at low circuit capacities was unlikely.²⁰

Because of “long-standing entry barriers” that “are not likely to be alleviated,” the GAO concluded that “wireline facilities-based competition itself may not be a realistic goal for some segments of the market for dedicated access”²¹ Similarly, another independent research group, the National Regulatory Research Institute (“NRRI”), found that in 2007, the median percentage of special access sales attributable to the incumbent LEC in a given market was 99 percent for DS1 channel terminations, 98 percent for DS1 transport, 91 percent for DS3 channel terminations, and 67 percent for DS3 transport.²² Based on this data and the entry barriers faced by competitors, NRRI concluded that incumbent LECs “still have strong market power in most geographic areas, particularly for channel terminations and DS-1 services.”²³

All available evidence indicates that this situation has not materially changed. In 2007 and 2008, the Commission reviewed the extent of competitive fiber deployment in 10 urban areas selected as the basis of petitions for forbearance filed by Verizon and Qwest.²⁴ Verizon and Qwest presumably chose these areas because they are subject to more competition than any other geographic areas in their incumbent LEC territories. After studying these areas, the

²⁰ *Id.*

²¹ *Id.* at 42.

²² P. Blum, National Regulatory Research Institute, *Competitive Issues in Special Access Markets*, Revised Edition, at 42 (first issued Jan. 21, 2009) (“*NRRI Study*”).

²³ *Id.* at 79.

²⁴ See *In the Matter of Petitions of the Verizon Telephone Companies for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Boston, New York, Philadelphia, Pittsburgh, Providence and Virginia Beach MSAs*, Memorandum Opinion and Order, 22 FCC Rcd. 21293 (2007) (“*6-MSA Order*”); *In the Matter of Petitions of Qwest Corp. for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Denver, Minneapolis, St. Paul, Phoenix and Seattle MSAs*, Memorandum Opinion and Order, 23 FCC Rcd. 11729 (2008) (“*4-MSA Order*”).

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Commission found that competitors served only 0.25 percent of commercial buildings with their own fiber facilities in the six markets selected by Verizon, and served only between 0.17 percent and 0.26 percent of commercial buildings in the four markets selected by Qwest.²⁵ Competitors in these markets were effectively required to rely on the incumbent LEC’s facilities because they lacked “any significant alternative sources of wholesale inputs.”²⁶ Similarly, in 2010, the Commission determined that Qwest faced insufficient competition in the market for wholesale loops and in the market for retail enterprise services to justify forbearance in the Phoenix Metropolitan Statistical Area (“MSA”), the urban area that Qwest presumably selected as the *most* competitive in its incumbent LEC territory.²⁷ The record in that proceeding further indicated that “the existence of significant barriers to entry, both in general and specifically in the Phoenix MSA, indicate[d] that potential competition poses no significant competitive constraint.”²⁸

Even more recently, the Commission found in the August 2012 *Pricing Flexibility Suspension Order* that the evidence in the record raises serious questions as to whether competitors have deployed transmission facilities to provide special access services in areas

²⁵ 6-MSA Order ¶ 41; 4-MSA Order ¶ 40.

²⁶ 6-MSA Order ¶ 38 (emphasis added); *see also* 4-MSA Order ¶ 37.

²⁷ *See In the Matter of Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona MSA*, Memorandum Opinion & Order, 25 FCC Rcd. 8622, ¶ 71 (2010) (“*Phoenix Order*”) (“[T]he record indicates that, other than Qwest, there are no significant suppliers of relevant wholesale loops with coverage throughout the Phoenix MSA, either individually or in the aggregate.”); *id.* ¶ 87 (“Qwest has not demonstrated that there exists significant actual or potential competition for enterprise services by competitors that rely on their own last-mile connections to serve customers”).

²⁸ *Id.* ¶ 72.

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subject to pricing flexibility.²⁹ Soon thereafter, the Commission concluded in the *Data Request Order* that competitors still serve only “a relatively small proportion of all locations that have special access.”³⁰

New information submitted into the record in this proceeding further supports these findings. An analysis of the data submitted in response to the Commission’s first data request yielded the conclusion that non-incumbent LEC service providers own connections to less than [BEGIN HIGHLY CONFIDENTIAL] █ [END HIGHLY CONFIDENTIAL] percent of the locations in 17 out of the 18 LSAs for which data was available, and to less than [BEGIN HIGHLY CONFIDENTIAL] █ [END HIGHLY CONFIDENTIAL] percent of the locations in 14 out of the 18 LSAs for which data was available.³¹ In addition, by aggregating available lists of commercial buildings to which alternative providers own last-mile facilities, tw telecom recently analyzed the extent of competitive deployment in the Phoenix MSA.³² Even in this

²⁹ *In the Matter of 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, 27 FCC Rcd. 10557, ¶¶ 68-69 (2012) (“*Pricing Flexibility Suspension Order*”).

³⁰ *Data Request Order* ¶ 25. The Commission also acknowledged that “competition in the provision of special access appears to occur at a very granular level – perhaps as low as building/tower or a floor of a building,” *id.* ¶ 38, reaffirming the notion that even when an alternative provider has deployed facilities to particularly high-volume locations in a given geographic area, it cannot be assumed that it has deployed facilities to other locations in the same area.

³¹ See Declaration of Susan Gately, ¶ 4 (dated July 10, 2012) (attached as Attachment 2 to Petition of Ad Hoc Telecommunications Users Committee, BT Americas, Cbeyond, Computer & Communications Industry Association, EarthLink, MegaPath, Sprint Nextel, and tw telecom to Reverse Forbearance from Dominant Carrier Regulation of Incumbent LECs’ Non-TDM-Based Special Access Services, WC Docket No. 05-25, at 30-60 (filed Nov. 2, 2012) (“*Ad Hoc et al. Petition to Reverse Forbearance*”).

³² See tw telecom Estimate of Non-Incumbent LEC Deployment in Phoenix MSA (attached hereto as “Appendix B”).

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market, tw telecom found that the incumbent LEC owns the only last-mile facility to more than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of commercial buildings.³³

The Joint Commenters' own purchase data paints a similar picture. As large purchasers of wholesale special access services, tw telecom and Level 3 have every incentive to purchase services from alternative wholesale providers in order to stimulate a more competitive market. However, tw telecom still purchases more than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of its DS1 channel terminations from incumbent LECs,³⁴ and Level 3 still purchases approximately [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of its DS1 channel terminations and transport circuits from incumbent LECs.³⁵ This information simply confirms what is already abundantly clear—that incumbent LECs are dominant in the provision of DS1 and DS3 special access services.

³³ *See id.*

³⁴ In June 2012, approximately [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of tw telecom's expenditures on all channel terminations—including both DSn-based services and Ethernet services—were for purchases from incumbent LECs. For DS1 channel terminations, which accounted for more than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of the amount that tw telecom spent on channel terminations, more than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of its purchases were from incumbent LECs. Even for channel termination services that were provided using Ethernet technology, which accounted for less than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of the total amount that tw telecom spent on channel terminations, more than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] percent of tw telecom's purchases were from incumbent LECs.

³⁵ *See* Level 3, Evidence that the Special Access Market is Not Competitive, and A Way to Remedy It, at 4 (dated June 27, 2012) (attached to Letter from Erin Boone, Senior Corporate Counsel, Federal Regulatory Affairs, Level 3, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.* (filed June 28, 2012)).

B. Incumbent LEC Exclusionary Purchase Arrangements Prevent Competition from Developing Without Yielding Any Identifiable Efficiencies or Other Benefits.

Incumbent LECs exploit and perpetuate their dominance in the markets for facilities-based DS1 and DS3 special access services by inducing competitors to purchase services pursuant to purchase arrangements that contain anticompetitive terms and conditions. These exclusionary purchase arrangements (1) effectively require competitors to purchase a large proportion of their special access demand from incumbent LECs; and (2) tie the sale of services that are subject to competitive supply to the sale of services that are not subject to competitive supply. These so-called “loyalty” and “tying” practices further raise the barriers to competitive entry and solidify the incumbent LECs’ dominance in these markets.

1. Incumbent LEC Exclusionary Purchase Arrangements Effectively Require Competitors to Purchase a Large Proportion of Their Special Access Demand from Incumbent LECs.

In order to illustrate how incumbent LEC exclusionary purchase arrangements effectively require competitors to purchase a large proportion of their special access demand from incumbent LECs, this section outlines the structure of such arrangements and the context within which they are offered. Although incumbent LEC purchase arrangements are diverse in their details, many share the attributes described herein. For the purposes of illustration, we focus predominantly on two tariffed discount plans: (1) the Term Payment Plan (including its optional “portability commitment”), which AT&T offers in legacy Southwestern Bell and Pacific Bell territories³⁶; and (2) the Commitment Discount Plan, which Verizon offers in legacy Bell

³⁶ See Southwestern Bell Tariff F.C.C. No. 73 § 7.2.22; Pacific Bell Telephone Company Tariff F.C.C. No. 1 § 7.4.18.

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Atlantic and NYNEX territories.³⁷

The Joint Commenters provide voice and data services to customers in the retail business services market. Some of these business customers' locations offer sufficient revenue opportunities to enable competitors to recover the costs of deploying their own last-mile facilities to such locations. However, because many of these customers' locations do not provide this level of revenue opportunities, competitors like the Joint Commenters must often lease access to such facilities from other carriers.³⁸ Unfortunately, as described in Section II.A *supra*, incumbent LECs own the only last-mile facilities to the vast majority of commercial buildings in their service areas. Thus, at many locations, the Joint Commenters have no choice but to purchase these last-mile facilities as special access services from incumbent LECs.

When a competitor purchases a DS1 or DS3 special access service from an incumbent LEC, the incumbent LEC generally charges: (1) an initial nonrecurring charge ("NRC") when the circuit is installed; and (2) a monthly recurring charge ("MRC") for each month that the

³⁷ See Verizon Telephone Companies Tariff F.C.C. No. 1 § 25.1; Verizon Telephone Companies F.C.C. Tariff No. 11 § 25.1. tw telecom, Level 3, and others have previously submitted detailed descriptions of other incumbent LEC exclusionary purchase arrangements and their impacts on the market for special access services in the record of this proceeding. See, e.g., Letter from Thomas Jones & Matthew Jones, Counsel for tw telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, Highly Confidential Attachment (filed Apr. 11, 2012) ("*tw telecom April 11, 2012 Letter*") (describing the direct impact on tw telecom of the incumbent LEC purchase arrangements under which tw telecom purchases services); Letter from Michael J. Mooney, General Counsel, Regulatory Policy, Level 3, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 8-16 (filed Feb. 22, 2012) ("*Level 3 February 22, 2012 Letter*") (describing the wide-ranging impacts of various incumbent LEC exclusionary purchase arrangements); **[BEGIN HIGHLY CONFIDENTIAL]** 

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³⁸ See generally tw telecom Build/Buy Analysis (attached hereto as "Appendix C") ("*tw telecom Build/Buy Analysis*").

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circuit remains in service. The incumbent LECs' undiscounted rates for special access services are extremely high. For example, for a DS1 channel termination in legacy Southwestern Bell territory, AT&T charges an installation NRC of \$900.00 and MRCs that range from \$195.00 to \$205.00.³⁹ Similarly, for a DS1 channel termination in legacy Bell Atlantic territory, Verizon charges an undiscounted installation NRC of \$355.00 and MRCs that range from \$197.00 to \$310.64.⁴⁰ These rates are so high as to be cost prohibitive for competitors seeking to provide services to retail business customers. Incumbent LECs have an incentive to keep these undiscounted rates very high in order to induce competitors to agree to exclusionary purchase arrangements that further cement the incumbents' market power.⁴¹

Incumbent LECs offer discounts off of these rates to buyers that commit to purchasing a circuit for a fixed period of time. For example, in legacy Southwestern Bell territory, if a customer commits to purchasing a DS1 channel termination from AT&T for a term of seven years, AT&T will waive its \$900.00 NRC altogether, and will charge the customer MRCs that range from \$90.00 to \$105.00 per channel termination, a discount of up to 53.85 percent off of its undiscounted MRCs.⁴² Similarly, in legacy Bell Atlantic territory, if a customer commits to purchasing a DS1 channel termination from Verizon for a term of seven years, Verizon will

³⁹ See Southwestern Bell Tariff F.C.C. No. 73 § 7.3.10(F)(1). These rates do not include the cost of interoffice transport. See *id.* § 7.3.10(F)(2).

⁴⁰ See Verizon Telephone Companies Tariff F.C.C. No. 1 § 7.5.9(A)(1). These rates also do not include the cost of interoffice transport. See *id.* § 7.5.9(B)(1)(b).

⁴¹ See Reply Declaration of Joseph Farrell on Behalf of CompTel, ¶ 21 (dated July 29, 2005) (attached to Reply Comments of CompTel *et al.*, WC Docket No. 05-25 *et al.* (filed July 29, 2005)) (“[O]nce an ILEC has contracted with some of its customers for a percentage discount off the month-to-month tariff, it has an incentive to raise the latter above the level that it would have chosen otherwise.”).

⁴² See Southwestern Bell Tariff F.C.C. No. 73 § 7.3.10(F)(10.4)(1).

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charge the customer a \$1.00 NRC rather than its undiscounted \$355.00 NRC, and will charge the customer MRCs that range from \$118.20 to \$186.39 per channel termination, a discount of approximately 40 percent off of its undiscounted MRCs.⁴³ Clearly, these discounts are substantial. However, they come with a heavy burden. If a competitor ceases purchasing a special access service prior to the expiration of its commitment term, the incumbent LECs impose an early termination penalty, which is often very large.⁴⁴

These early termination penalties disproportionately harm competitors that use leased incumbent LEC special access as an input to services offered to retail customers. This is because the length of time for which a competitor needs a special access circuit at a particular location depends on the length of time that a retail customer continues to purchase service from the competitor at that location. If the competitor's retail customer purchases services at a location for a time period that is shorter than the per-circuit term commitment that the competitor has been effectively forced to make to the incumbent LEC, then the competitor becomes subject to an early termination penalty due to circumstances beyond the competitor's control. For example, assume that a competitor purchases a channel termination from AT&T pursuant to a seven-year commitment term, and the competitor uses that channel termination to serve a retail customer

⁴³ See Verizon Telephone Companies Tariff F.C.C. No. 1 § 7.5.16(D).

⁴⁴ As Drs. Besen and Mitchell explain, early termination penalties can be justified as a means of recovering customer-specific, sunk costs associated with providing a circuit. See *Besen and Mitchell Paper* ¶¶ 56-57. However, incumbent LECs often exploit this mechanism by imposing early termination penalties that are far greater than any unrecovered customer-specific, sunk costs in order to prevent competitors from purchasing services from an alternative wholesale provider. For example, in legacy Southwestern Bell territory, AT&T applies a penalty equal to 40 percent of the MRC for the service, multiplied by the number of months remaining in the commitment term. See *Southwestern Bell Tariff* F.C.C. No. 73 § 7.2.22(G). Verizon applies a more complicated formula, but this formula yields early termination penalties that are often very large as well. See *Verizon Telephone Companies Tariff* F.C.C. No. 1 § 7.4.17(D).

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that signs a service contract that is two years in duration. Note that the competitor commits to a seven-year term in order to obtain a low enough price to compete in the downstream retail market. If the retail customer does not renew its contract with the competitor at the end of the initial two-year term, the competitor would no longer demand the circuit from AT&T for the remaining five years of the commitment term. However, if the competitor ceases purchasing the circuit from AT&T, it would face a substantial early termination penalty.

Incumbent LECs understand that, if competitors wish to serve a large number of retail customers, they cannot afford to incur such penalties on a regular basis. Thus, incumbent LECs offer competitors an alternative “solution”—purchase arrangements under which the incumbent LEC will not impose early termination penalties so long as the competitor commits to maintaining a certain volume of circuits in service with the incumbent LEC. This “benefit” is known as “circuit portability.” Often, the volume commitment that a competitor must make in order to receive this benefit is equal to a high percentage of the competitor’s historic special access purchase volume from the incumbent LEC.

For example, in legacy Southwestern Bell and Pacific Bell territories, AT&T provides purchasers the option of subscribing to a “portability commitment” under its Term Payment Plan (“TPP”).⁴⁵ If a purchaser selects this option, it may freely connect and disconnect individual circuits without incurring early termination penalties, so long as it commits to maintaining at least 80 percent of its historic purchase volume in service with AT&T for a period of three

⁴⁵ See Southwestern Bell Tariff F.C.C. No. 73 § 7.2.22(E). AT&T’s “portability commitment” is offered as an optional component of AT&T’s term-based plan in these territories (the Term Payment Plan), whereas Verizon’s Commitment Discount Plan, discussed below, is offered as a plan that is distinct from Verizon’s term-based plan in legacy Bell Atlantic and NYNEX territories (the Term Pricing Plan). Despite this formalistic difference, both arrangements present competitors with a similar choice.

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years.⁴⁶ Similarly, in legacy Bell Atlantic and NYNEX territories, Verizon provides purchasers the option of purchasing services pursuant to the Commitment Discount Plan (“CDP”),⁴⁷ under which a purchaser may freely connect and disconnect individual circuits without incurring early termination penalties,⁴⁸ so long as the purchaser commits to maintaining at least 90 percent of its historic purchase volume in service with Verizon for a period between two and seven years.⁴⁹

Incumbent LEC purchase arrangements that condition circuit portability on large volume commitments thus present competitors with a Hobson’s choice—either incur frequent and substantial early termination penalties or agree to purchase a large proportion of special access demand from the incumbent LEC. If they wish to serve a large number of retail customers, competitors must often select the latter option. Unsurprisingly, incumbent LECs derive a very

⁴⁶ *See id.*

⁴⁷ *See* Verizon Telephone Companies Tariff F.C.C. No. 1 § 25.1.4.

⁴⁸ Circuit portability under the CDP is limited by a one-year minimum in-service period. *Id.* § 25.1.10.

⁴⁹ *See* Verizon Telephone Companies Tariff F.C.C. No. 1 § 25.1.4(D). Customers receive more favorable discounts if they agree to maintain this purchase volume for a longer period of time. According to Verizon, **[BEGIN HIGHLY CONFIDENTIAL]** [REDACTED]

[END HIGHLY CONFIDENTIAL] *See* Letter from Maggie McCready, Vice President, Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 2 (filed June 6, 2012) (“*Verizon June 6, 2012 Letter*”). Other incumbent LEC exclusionary purchase arrangements contain percentage-based volume commitments that are even more onerous than these. For example, under CenturyLink’s Regional Commitment Plan (“RCP”), a customer must commit to maintaining 95 percent of its special access purchase volume in service in order to receive discounted rates and circuit portability. *See* Qwest Corporation Tariff F.C.C. No. 1 § 7.1.3(B). In addition, some incumbent LEC exclusionary purchase arrangements allow the customer to determine its own commitment level. *See, e.g.*, BellSouth Telecommunications Tariff F.C.C. No. 1 § 2.4.8(B). Under these exclusionary purchase arrangements, incumbent LECs induce customers to establish high volume commitment levels by only granting circuit portability and other benefits to the volume of circuits committed.

large portion of their special access revenues from these plans. For example, in 2010, Verizon derived more than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] from the sale of DS1s and DS3s under tariff discount plans with volume commitments, amounting to over [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] of its revenue from the sale of DS1s and DS3s nationwide.⁵⁰ This massive volume, and the massive volumes committed under the other incumbent LECs' exclusionary purchase arrangements, are effectively locked out of the addressable market for any existing or potential alternative provider of wholesale special access services.

This is so because, once a competitor agrees to a volume commitment with the incumbent LEC, it is virtually impossible for the competitor to shift any of its committed special access demand to an alternative provider. Incumbent LECs impose substantial shortfall penalties if a customer's actual purchase volume falls short of its committed volume. For example, under AT&T's TPP portability commitment, if a customer were to shift more than 20 percent of its DS1 purchases from AT&T to an alternative provider during the current term and thus fall short of its 80 percent commitment level, AT&T would charge the customer a monthly penalty of \$900 for each circuit by which the customer's purchase volume fell short.⁵¹ According to NRRI,

⁵⁰ See [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] Verizon derives over [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] annually from the sale of DS1s and DS3s under the CDP alone. See *Verizon June 6 Letter* at 2-3.

⁵¹ See Southwestern Bell Tariff FCC No. 73 § 7.2.22(E)(4)(b) (indicating that the monthly shortfall penalty is equal to the nonrecurring channel termination charge for each circuit by which the customer falls short), § 7.3.10(F)(5) (indicating that the nonrecurring channel termination charge is equal to \$900); Pacific Bell Telephone Company Tariff F.C.C. No. 1 § 7.4.18(E)(4)(b) (indicating that the monthly shortfall penalty is equal to the nonrecurring channel

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this penalty “amounts to six times the price at which a buyer could purchase the same circuit at rack prices.”⁵² Under Verizon’s CDP, if a customer were to shift more than 10 percent of its DS1 or DS3 purchases from Verizon to an alternative provider during the plan’s term, and thus fall short of its 90 percent commitment level, the customer would nonetheless be required to pay Verizon for its full commitment level volume.⁵³

To make matters worse, incumbent LECs impose overage penalties if a customer exceeds a *maximum* purchase volume level, unless the competitor agrees to ratchet up its volume commitment to encompass the overage. For example, under the AT&T TPP portability commitment, AT&T imposes a \$900 monthly overage penalty for each circuit a competitor purchases in excess of 124 percent of a competitor’s commitment level unless the competitor increases its commitment level to encompass the overage.⁵⁴

In addition, incumbent LECs impose substantial penalties if a competitor seeks to reduce its volume commitment or cancel its volume commitment altogether during its commitment term. For example, under AT&T’s TPP portability commitment, AT&T charges the customer a

termination charge for each circuit by which the customer falls short), § 7.5.9(I)(5) (indicating that the nonrecurring channel termination charge is equal to \$900).

⁵² *NRRI Study* at 74.

⁵³ *See* Verizon Telephone Companies F.C.C. Tariff No. 1 § 25.1.7(B); Verizon Telephone Companies F.C.C. Tariff No. 11 §§ 25.1.7(B). CenturyLink imposes a similar shortfall penalty under the RCP. *See* Qwest Tariff F.C.C. No. 1 § 7.1.3(B)(3).

⁵⁴ *See* Pacific Bell Telephone Company Tariff F.C.C. No. 1 § 7.4.18(E)(4)(c); Southwestern Bell Tariff FCC No. 73 § 7.2.22(E)(4)(c). Under the Verizon CDP, Verizon charges the customer the undiscounted rate for each circuit in excess of 130 percent of the customer’s commitment level unless the customer increases its commitment level to encompass the overage. *See* Verizon Telephone Companies F.C.C. Tariff No. 1 § 25.1.7(D).

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penalty equal to the undiscounted MRC for each service by which the customer reduces its volume commitment for the remainder of the three-year term.⁵⁵

Incumbent LECs have argued that competitors can simply shift all or a subset of their purchases to an alternative wholesale provider at the end of an incumbent LEC purchase arrangement's term,⁵⁶ but this is rarely, if ever, a realistic option. To begin with, it is not possible for a competitor that serves a large number of business customers to shift *all* of its special access purchases in a given incumbent LEC territory to an alternative wholesale provider because, as explained in Section II.A *supra*, alternative wholesale providers currently own facilities serving only a very small number of commercial buildings. Any suggestion that an alternative wholesale provider would be able to construct new facilities to every location served by the competitor seeking to shift its purchases from the incumbent LEC disregards the high barriers to deploying last-mile facilities.⁵⁷ At best, a competitor could only attempt to shift a subset (likely a small subset) of its demand to an alternative wholesale provider and keep the remaining portion of its demand in service with the incumbent LEC under a new purchase arrangement. However, because of the manner in which incumbent LECs have structured the terms of their purchase arrangements, competitors face significant obstacles to accomplishing such a transition. The volume commitments required under incumbent LEC purchase

⁵⁵ See Southwestern Bell Telephone Company, Tariff F.C.C. No. 73, § 7.2.22(E)(4)(e). Under Verizon's CDP, Verizon applies a more complicated formula, but Verizon's formula often yields very large early termination penalties as well. See Verizon Telephone Companies F.C.C. Tariff No. 1 § 25.1.9(C).

⁵⁶ See, e.g., Letter from Evan T. Leo, Counsel for Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 4 (filed July 16, 2012) ("*Verizon July 16, 2012 Letter*") ("When a customer's plan expires, the customer has many options, including migrating all of its circuits away from Verizon.").

⁵⁷ See Section II.A *supra*.

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arrangements are based on either a percentage of the competitor's total purchase volume from the incumbent LEC at the time the competitor signs up for the purchase arrangement, or its total purchase volume from the incumbent LEC in the month before it signs up for the purchase arrangement.⁵⁸ Thus, in order to sign up for a new purchase arrangement at a lower volume commitment level, the competitor must have already begun purchasing a subset of its special access volume from an alternative wholesale provider. Of course, if the competitor attempted to do so during the term of its original purchase arrangement, it would incur extremely high shortfall penalties and early termination penalties, as explained above.

Thus, a competitor could only attempt to undergo such a transition after the expiration of its original purchase arrangement and before it signs up for a new one. As tw telecom has explained, if the transition involved any significant number of retail customers, this would be an extremely long and burdensome process.⁵⁹ Among other things, the competitor would be required to coordinate with *each* of its affected retail customers individually to schedule a mutually agreeable time at which its service can be interrupted and the necessary network modifications performed, dispatch service representatives to *each* of its affected retail customers' premises to establish a new network interface, and coordinate with third-party private branch

⁵⁸ For example, under the CDP, a competitor's minimum volume commitment is equal to 90 percent of its purchase volume from Verizon at the time that the competitor signs up for the CDP. *See* Verizon Telephone Companies Tariff F.C.C. No. 1 § 25.1.3(A)(5). Under AT&T's TPP portability commitment, a competitor's minimum volume commitment is equal to 80 percent of its purchase volume from AT&T in the month previous to the month in which the competitor signs up for the portability commitment. *See* Southwestern Bell Tariff F.C.C. No. 73 § 7.2.22(E).

⁵⁹ *See* Letter from Thomas Jones and Matthew Jones, Counsel for tw telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 7-8 (filed Aug. 21, 2012) ("*tw telecom August 21, 2012 Letter*").

exchange vendors where necessary to perform further equipment modifications.⁶⁰ Throughout this process, the competitor would be required to operate without the discounts and other benefits (such as circuit portability) associated with the purchase arrangement for every special access service that the competitor purchases from the incumbent LEC in the relevant territory. The cost of foregoing such discounts and benefits across a large volume of special access circuits is likely to be prohibitive.

Finally, under some exclusionary purchase arrangements, competitors remain subject to early termination penalties associated with individual circuit terms *even after the expiration of a volume commitment*. For example, under AT&T's TPP portability commitment, once the three year volume commitment expires, each circuit remains subject to its own term commitment of up to seven years.⁶¹ Therefore, in addition to undergoing the transition process described above, a competitor would be required to incur early termination fees on the circuits it wishes to transfer to an alternative provider to the extent that the terms of those circuits have not expired. The cost of those early termination fees would almost certainly be prohibitive.

2. Incumbent LEC Exclusionary Purchase Arrangements Tie the Sale of Services That Are or Might Be Subject to Competitive Supply to the Sale of Services That Are Not Subject to Competitive Supply.

Exclusionary purchase arrangements also act as tying arrangements by requiring purchasers to purchase services that are or might be subject to competitive supply from the incumbent LEC in order to receive discounts or other benefits on services that are not subject to

⁶⁰ For this reason, Verizon's suggestion that a competitor could undergo such a transition during a two-month "grace period" offered by Verizon is wildly unrealistic. *See id.*

⁶¹ *See* Southwestern Bell Tariff F.C.C. No. 73 § 7.2.22(E) (indicating that DS1 TPP terms of 2, 3, 4, or 7 years count toward the volume commitment level, which itself applies to periods of three years at a time).

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competitive supply. This allows incumbent LECs to leverage their dominance in the provision of certain DS1 and DS3 special access services in order to gain or maintain market share in the provision of services that might otherwise be subject to more competition. The incumbent LECs achieve this result in three distinct ways.

First, by requiring a competitor to maintain a very high purchase volume across a large territory, such as an entire legacy BOC territory, incumbent LECs leverage their dominance in the parts of that territory that are not subject to competition in order to gain or maintain market share in the parts that might be subject to competition. For example, while the level of density in New York City may offer an alternative wholesale provider a legitimate business case to construct its own facilities in certain locations, the level of density in many parts of upstate New York likely does not. For many buildings in upstate New York, a competitor seeking to purchase a DS1 or DS3 special access service has only one choice—purchasing from Verizon. However, in order for Verizon to grant the competitor circuit portability for these services, the competitor must subscribe to the CDP, which, as described above, requires the customer to maintain 90 percent of its historic purchase volume across legacy NYNEX territory.⁶² Thus, the competitor must forego the opportunity to purchase services from an alternative wholesale provider, even in New York City, in order to obtain these benefits.

Second, by inducing competitors to agree to volume commitments that encompass both special access rate elements that might be subject to competition and non-competitive special access rate elements, incumbent LECs leverage their dominance in the provision of non-competitive special access rate elements in order to gain or maintain market share in the provision of special access rate elements that might be subject to competition. For example, in

⁶² See Verizon Telephone Companies Tariff F.C.C. No. 1 § 25.1.

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some geographic areas in the legacy Qwest territory, the market for transport may be subject to more competition than the market for channel terminations. However, in order to receive circuit portability for channel terminations in the legacy Qwest territory, a competitor must subscribe to CenturyLink’s RCP. That plan requires the competitor to maintain 95 percent of its historic purchase volume as measured in revenues, including revenues from both the purchase of channel terminations and the purchase of transport.⁶³ Thus, in order to obtain a discount on channel terminations, the competitor must continue to purchase both channel termination and transport circuits from CenturyLink. In so doing, the competitor foregoes the opportunity to purchase transport from alternative wholesale providers in the legacy Qwest territory even where such providers might have already deployed facilities or might decide to enter.

Third, by inducing competitors to agree to volume commitments that encompass both special access services over which the incumbent LEC has market power and non-special access services that are subject to competition, incumbent LECs leverage their dominance in the provision of special access services in order to gain or maintain market share in the provision of competitive non-special access services. For example, **[BEGIN HIGHLY CONFIDENTIAL]**

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] **[END HIGHLY CONFIDENTIAL]** Agreements such as

⁶³ See Qwest Corporation Tariff F.C.C. No. 1 § 7.1.3(B).

this require competitors to forego the opportunity to purchase non-special access services from alternative wholesale providers where doing so would otherwise be economical.⁶⁴

3. Incumbent LEC Exclusionary Purchase Arrangements Harm Competition and Consumer Welfare.

By forcing competitors to purchase virtually all of their special access service needs from incumbent LECs and tying special access services that might be subject to competition to the purchase of special access services that are not subject to any competition, the incumbent LECs prevent alternative providers from entering into or expanding their presence in the special access market. As Drs. Besen and Mitchell explain, the loyalty and tying effects yield higher rates for special access services in a number of ways. *First*, demand for incumbent LEC services becomes less elastic, giving incumbent LECs the incentive and ability to increase special access rates without the threat of losing sales to competitors.⁶⁵ *Second*, competitors are denied economies of scale, thus raising their costs and requiring them to price their services higher.⁶⁶ *Third*, competitors may reduce their investment in research and development (for example, by reducing investment in research personnel or network planning activity) because they anticipate that future sales will not be adequate to justify such investments. This eliminates future cost savings that could have otherwise resulted from such research and development and makes entry less likely.⁶⁷

⁶⁴ If a competitor declines to enter into such an agreement with an incumbent LEC, it risks placing itself at a competitive disadvantage with respect to other competitors that do enter into such an agreement. For this reason, as explained in Section II.D *infra*, the Joint Commenters propose that the FCC prohibit agreements of this nature.

⁶⁵ See *Besen and Mitchell Paper* ¶ 34.

⁶⁶ See *id.* ¶¶ 35-37.

⁶⁷ See *id.* ¶ 38.

In addition, where incumbent LECs tie the sale of non-special access services that are subject to competition to the sale of special access services that are not subject to competition, incumbent LECs harm competition in the non-special access service markets. Thus, the harmful effects of the incumbent LEC exclusionary purchase arrangements extend beyond even the critically important markets for special access services.

4. *Incumbent LEC Exclusionary Purchase Arrangements Do Not Have Countervailing Efficiency Justifications.*

Incumbent LECs have often claimed that there are countervailing efficiency justifications associated with the anticompetitive loyalty and tying provisions in their exclusionary purchase arrangements, but these claims are false. *First*, incumbent LECs assert that volume commitment provisions yield efficiencies associated with “greater certainty and predictability.”⁶⁸ However, under many exclusionary purchase arrangements, circuit portability and other benefits are conditioned on a competitor committing to maintain a certain *percentage* of its historic purchase volume in service with the incumbent LEC, rather than a certain *number* of circuits. As Drs. Besen and Mitchell explain, “To the extent that there are economies of scale in the provision of special access, those economies are more likely to depend on the *number* of circuits purchased by a customer than on the *percentage* of the customer’s historic purchases that these circuits represent.”⁶⁹

⁶⁸ See, e.g., *Verizon July 16, 2012 Letter* at 3-4.

⁶⁹ *Besen and Mitchell Paper* ¶ 41; see also *tw telecom August 21, 2012 Letter* at 2-4 (rebutting Verizon’s assertions regarding purported efficiencies yielded by the percentage-based volume commitment provisions in its CDP and its National Discount Plan).

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Second, incumbent LECs claim that volume commitment provisions offer them economies of scale.⁷⁰ But these commitment provisions nearly always encompass purchases across an extremely broad geographic area. For example, in order to receive circuit portability from AT&T in either North Carolina or Florida, a customer must agree to the Area Commitment Plan, which contains a volume commitment that applies throughout legacy BellSouth territory, including both of these states.⁷¹ According to Drs. Besen and Mitchell, “It is highly unlikely, to say the least, that an ILEC’s costs in providing special access to a particular customer in one of its service areas are affected to any significant degree by the amount of special access services that it provides to that customer in another area.”⁷²

Third, incumbent LECs argue that “volume discount plans are easier to manage and administer and allow providers to avoid the expense of constantly renegotiating the terms of service.”⁷³ But this ease of management and administration is entirely unrelated to the volume commitments in incumbent LEC purchase arrangements. As Drs. Besen and Mitchell point out, with the exception of non-tariffed commercial agreements, incumbent LECs’ DS1 and DS3 special access offerings are set forth in their tariffs, and the terms of these tariffs govern special access sales whether a competitor chooses to purchase services under a purchase arrangement with a volume commitment or not.⁷⁴ The incumbent LECs’ claim that, without a large volume

⁷⁰ See, e.g., Declaration of Quinn Lew and Anthony Recine on Behalf of Verizon, ¶ 28 (dated Feb. 24, 2010) (attached as Attachment B to Reply Comments of Verizon, WC Docket No. 05-25 *et al.* (filed Mar. 19, 2010)) (“*Lew and Recine Declaration*”).

⁷¹ See BellSouth Telecommunications Tariff F.C.C. No. 1 § 2.4.8(B).

⁷² *Besen and Mitchell Paper* ¶ 42; see also *id.* ¶ 46.

⁷³ *Lew and Recine Declaration* ¶ 28.

⁷⁴ See *Besen and Mitchell Paper* ¶ 45.

commitment, they would have to “constantly renegotiate” the terms of their tariffed special access offerings is therefore not credible.

Fourth, incumbent LECs defend their volume commitment provisions because they claim that they “have allowed [incumbent LECs] to make ... substantial capital investments with some certainty that [their] investments will be recovered through special access revenues.”⁷⁵ Again, this purported benefit does not justify conditioning benefits on the percentage of a competitor’s historic purchase volume that it agrees to maintain in service with the incumbent LEC. As Drs. Besen and Mitchell explain, “if a customer were to purchase a smaller percentage of its requirements from [the incumbent LEC], presumably [the incumbent LEC] would make smaller special access investments and would be able to recover the costs of those investments from the proceeds of special access purchases that are actually made by the customer.”⁷⁶

5. Antitrust Precedent Supports the Conclusion that Incumbent LEC Exclusionary Purchase Arrangements Are Anticompetitive and Harm Consumer Welfare.

Agencies and courts have assessed contract provisions that are similar to the loyalty and tying terms and conditions in incumbent LEC purchase arrangements, and have found that such provisions violate the antitrust laws. This precedent supports the conclusion that incumbent LEC purchase arrangements are anticompetitive and harm consumer welfare.

First, the Federal Trade Commission (“FTC”) has brought enforcement actions against companies that offer discounts or other benefits conditioned on the proportion of a customer’s requirements for a product or service that it purchases from the company. For example, in 2009, the FTC filed a complaint against Intel alleging that Intel had violated Section 5 of the Federal

⁷⁵ *Lew and Recine Declaration* ¶ 28.

⁷⁶ *Besen and Mitchell Paper* ¶ 47.

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Trade Commission Act⁷⁷ by, among other things, conditioning discounts and other benefits on a buyer's commitment to purchase a large share of its microprocessor requirements from Intel.⁷⁸ In its Complaint, the FTC alleged that Intel possessed monopoly power since its market share exceeded 75 percent and Intel's competitors faced significant barriers to entry.⁷⁹ It further alleged that "Intel offered market share or volume discounts selectively to [original equipment manufacturers ("OEMs")] to foreclose competition."⁸⁰ The FTC explained that "[i]n most cases, it did not make economic sense for any OEM to reject Intel's exclusionary pricing offers."⁸¹ Thus, OEMs almost always accepted, and "Intel's offers had the practical effect of foreclosing rivals from all or substantially all of the purchases by an OEM."⁸² To resolve these allegations,

⁷⁷ 15 U.S.C. § 45.

⁷⁸ See Administrative Complaint, *In the Matter of Intel Corporation*, FTC Docket No. 9341 (Dec. 16, 2009) ("*FTC Complaint*"), available at <http://www.ftc.gov/os/adjpro/d9341/091216intelcmpt.pdf>. For a discussion of the FTC's case against Intel, see J. Farrell, J.K. Pappalardo, and H. Shelanski, Economics at the FTC: Mergers, Dominant-Firm Conduct, and Consumer Behavior, *Review of Industrial Organization*, 8-9 (Oct. 30, 2010), available at http://www.ftc.gov/be/otherdocuments/econatftc/Farrelletal_RIO2010.pdf. The FTC's allegations were similar to those made in a private antitrust suit filed by AMD in 2005. See Complaint, *Advanced Micro Devices, Inc. v. Intel Corporation.*, Docket Nos. MDL 05-17174JF, Civ. A. 05-441-JJF (D. Del. June 27, 2005). In order to settle the dispute with AMD, Intel agreed to pay AMD \$1.25 billion and adhere to a set of conditions, including a commitment not to induce customers to exclusively purchase microprocessors from Intel. See S. Shankland and J. Skillings, *Intel to Pay AMD \$1.25 Billion in Antitrust Settlement*, CNET (Nov. 12, 2009), available at http://news.cnet.com/8301-1001_3-10396188-92.html (last visited Feb, 11, 2013).

⁷⁹ *FTC Complaint* ¶¶ 41-46.

⁸⁰ *FTC Complaint* ¶ 7; see also *id.* ¶ 53 ("Intel offered market share or volume discounts selectively to OEMs to foreclose competition in the relevant CPU markets. . . . Intel taxed OEM purchases of non-Intel CPUs through the use of market share discounts.").

⁸¹ *Id.* ¶ 7.

⁸² *Id.*

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Intel entered into a consent decree with the FTC that prohibited it from, among other things, entering into any purchase arrangement that conditioned a discount or benefit on the share of a customer's requirements for microprocessors that the customer purchased from Intel rather than its competitors.⁸³

Second, courts have analyzed contracts that effectively require a customer to purchase a large proportion of its requirements from a given seller as *de facto* forcing the customer to purchase only from the seller. For example, in *ZF Meritor v. Eaton*, the Third Circuit Court of Appeals found that a manufacturer of truck transmissions entered into *de facto* exclusive dealings contracts when it conditioned discounts on a customer meeting purchase volume thresholds that ranged from 70 to 97.5 percent of the customer's requirements.⁸⁴ The Court explained that such agreements can have adverse economic consequences similar to those of explicit exclusive dealings contracts (e.g., "allowing one supplier of goods or services unreasonably to deprive other suppliers of a market for their goods.")⁸⁵ The Court found that, "although the market-share targets covered less than 100% of the OEMs' needs, a jury could

⁸³ Decision and Order, *In the Matter of Intel Corporation*, FTC Docket No. 9341, § IV.A.5 (Oct. 29, 2010), available at <http://www.ftc.gov/os/adjpro/d9341/100804inteldo.pdf>. In a similar case, Transitions Optical entered into a consent decree with the FTC in which it agreed, among other things, to refrain from "offering market share discounts that are based on what percentage of a customer's photochromic lens sales are Transitions' lenses." See *FTC Bars Transitions Optical, Inc. from Using Anticompetitive Tactics to Maintain its Monopoly in Darkening Treatments for Eyeglass Lenses* (Mar. 3, 2010), available at <http://www.ftc.gov/opa/2010/03/optical.shtm> (last visited Feb. 11, 2013).

⁸⁴ *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 265 (3d Cir. 2012).

⁸⁵ *Id.* at 270 (citing *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 45 (1984) (O'Connor, J., concurring); *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 227, 236 (1st Cir. 1983) ("[U]nder certain circumstances[,] foreclosure might discourage sellers from entering, or seeking to sell in, a market at all, thereby reducing the amount of competition that would otherwise be available").

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nevertheless find that the [agreements] unlawfully foreclosed competition in a substantial share of the . . . market.”⁸⁶ Thus, it affirmed the jury’s verdict that the agreements were anticompetitive and caused the manufacturer’s competitor to suffer antitrust injury.⁸⁷

Third, courts have analyzed bundled discounts that require a customer to purchase both a monopoly good and a competitive good in order to receive a discount on the monopoly good as tying arrangements.⁸⁸ For example, in *Lepage’s v. 3M*, the Third Circuit held that 3M illegally leveraged its dominance in the market for transparent tape (afforded by its Scotch tape brand) to induce stores to purchase other 3M product lines that were subject to competitive supply.⁸⁹ 3M accomplished this leveraging by providing a discount on Scotch tape only if a store bought certain volumes of its other product lines that were subject to competition.⁹⁰ Similarly, in

⁸⁶ *ZF Meritor*, 696 F.3d at 283.

⁸⁷ *See id.* at 303 (“[W]e conclude that Plaintiffs presented sufficient evidence to support the jury’s finding that Eaton engaged in anticompetitive conduct and that Plaintiffs suffered antitrust injury as a result”); *see also Masimo Corp. v. Tyco Health Care Group, L.P.*, 350 Fed. App’x 95 (9th Cir. 2009) (affirming a jury verdict that Tyco’s agreements containing discounts conditioned on a hospital purchasing 90 percent of its requirements for pulse oximetry products from Tyco constituted anticompetitive *de facto* exclusive dealings contracts).

⁸⁸ For an explanation of such discounts, *see Phillip Areeda & Herbert Hovenkamp, Antitrust Law* ¶ 749, at 83 (Supp. 2002) (“The anticompetitive feature of package discounting is the strong incentive it gives buyers to take increasing amounts or even all of a product in order to take advantage of a discount aggregated across multiple products. In the anticompetitive case, which we presume is in the minority, the defendant rewards the customer for buying its product *B* rather than the plaintiff’s *B*, not because defendant’s *B* is better or even cheaper. Rather, the customer buys the defendant’s *B* in order to receive a greater discount on *A*, which the plaintiff does not produce. In that case the rival can compete in *B* only by giving the customer a price that compensates it for the foregone *A* discount.”).

⁸⁹ *See Lepage’s Inc. v. 3M*, 324 F.3d 141 (3d Cir. 2003).

⁹⁰ *Id.* at 155 (“The principal anticompetitive effect of bundled rebates as offered by 3M is that when offered by a monopolist they may foreclose portions of the market to a potential competitor who does not manufacture an equally diverse group of products and who therefore cannot make a comparable offer.”).

SmithKline v. Eli Lilly, the Third Circuit found that Lilly violated Section 2 of the Sherman Act by conditioning a discount for two antibiotics, over which it had a monopoly, on a hospital purchasing quantities of a third antibiotic that was subject to competition from SmithKline.⁹¹ In order to match the discount provided on all three antibiotics by Lilly, SmithKline would have to sell the competitive antibiotic at uneconomically low prices, and thus was effectively excluded from the market.⁹²

The tying and loyalty provisions at issue in these cases bear a close resemblance to the tying and loyalty provisions in incumbent LECs' exclusionary special access purchase arrangements. Just as the courts and regulatory agencies have found that these kinds of provisions violate antitrust laws, the Commission should conclude that they are unreasonable in violation of Section 201(b) of the Communications Act.

C. Incumbent LEC Exclusionary Purchase Arrangements Undermine the Policy Goals of Section 706.

Section 706 of the 1996 Act directs the Commission to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans”⁹³ The anticompetitive terms and conditions in incumbent LEC special access purchase arrangements blatantly undermine this policy goal.

First, as described above, competitors must effectively purchase a large proportion of their special access volume from the incumbent LEC, thereby limiting their ability to purchase

⁹¹ See *SmithKline Corp. v. Eli Lilly & Co.*, 575 F.2d 1056, 1060-61 & n.3 (3d Cir. 1978).

⁹² See *id.* at 1065 (“The effect of the [discount plan] was to force SmithKline to pay rebates on one product, Ancef, equal to rebates paid by Lilly based on volume sales of three products. . . . [T]he court found SmithKline's prospects for continuing in the cephalosporin market under these conditions to be poor.”).

⁹³ 47 U.S.C. § 1302(a).

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material volumes of special access services from alternative wholesale providers without incurring significant penalties. As a result of this limitation, there is a far smaller addressable market for existing or potential alternative wholesale providers than would otherwise be the case. Thus, such providers have a reduced incentive to deploy last-mile fiber facilities to commercial buildings. For example, as Level 3 has explained, it would construct fiber facilities to many more buildings that are near its network if incumbent LEC purchase arrangements did not hinder it from doing so. However, Level 3 has a reduced incentive to incur the expense to construct such facilities because its prospective wholesale customers would be unable to purchase more than a small fraction of their requirements from Level 3.⁹⁴

Second, by effectively requiring competitors to continue purchasing large volumes of DS1 and DS3 special access services, incumbent LEC exclusionary purchase arrangements delay the adoption of Ethernet and other packet-mode services. As *tw telecom* and Level 3 have explained, incumbent LEC purchase arrangements lack sufficiently flexible technology migration provisions, thereby limiting competitors' ability to upgrade DS_n services to Ethernet services.⁹⁵ For example, under the terms of many exclusionary purchase arrangements, if a

⁹⁴ See Letter from Michael J. Mooney, Counsel for Level 3, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 5 (filed June 27, 2012) (“Level 3 would construct fiber to many more buildings that are near its network, if AT&T’s (and the other price cap LECs’) lock up arrangements did not hinder it from doing so. Level 3 is forced to sit out more often than it would like not because it wants to, but because if it did incur the expense to build to these buildings, its prospective, large customers would be unable to buy more than a fraction of their demand from Level 3 as they are already locked in to buying from AT&T and the other price cap LECs instead.”).

⁹⁵ See Letter from Thomas Jones & Matthew Jones, Counsel for *tw telecom*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 13 (filed June 5, 2012) (explaining that the absence of sufficiently flexible technology migration provisions in incumbent LEC tariffs limit *tw telecom*’s ability to upgrade DS_n services to Ethernet services); *tw telecom April 11, 2012 Letter* at 20-22 (describing how various incumbent LEC exclusionary purchase arrangements impose shortfall penalties that prevent customers from upgrading DS_n services to

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to encourage real competition in the special access market while at the same time ensuring that incumbent LECs retain the ability to recover their costs, earn a reasonable return on their investments, and offer their customers a wide variety of pricing options.⁹⁸

First, Drs. Besen and Mitchell recommend that the Commission adopt Level 3's proposal to limit the size of the volume commitment that an incumbent LEC may require as a condition of providing a discount or other benefit, such as circuit portability.⁹⁹ The limit for such commitments should be set at a level that would allow purchasers to shift a material amount of their special access purchases to alternative wholesale providers without incurring substantial penalties.¹⁰⁰ Similarly, the Commission should prohibit incumbent LECs from imposing any penalty if a purchaser declines to increase its volume commitment to encompass growth in the purchaser's special access demand. In addition, the Commission should prohibit incumbent LECs from conditioning the availability of a discount or other benefit, such as circuit portability, on a purchaser's commitment to purchase non-special access services. According to Drs. Besen

⁹⁸ Despite the inevitable protestations to the contrary, if the Commission were to adopt these proposals, incumbent LECs would continue to have significant flexibility in pricing their services. For example, they would continue to be able to de-average their rates under existing FCC rules, enabling them to establish up to seven pricing zones that they alone define. *See* 47 C.F.R. § 69.123(b). In addition, they would continue to be able to offer discount arrangements, so long as they comply with the limits described herein. The Commission should not, however, allow the incumbent LECs to exploit this flexibility to override the Commission's reforms by reducing discounts and raising prices. *See* note 101 *infra*.

⁹⁹ *See Level 3 February 22, 2012 Letter* at 28.

¹⁰⁰ For example, if a competitor currently purchases services under Verizon's CDP, it may only shift 10 percent of its historic purchase volume away from Verizon to an alternative wholesale provider without incurring a penalty. *See* Verizon Telephone Companies Tariff F.C.C. No. 1 § 25.1.4(D) (requiring a purchaser to maintain at least 90 percent of its historic purchase volume in service with Verizon). However, if Verizon were only permitted to require a customer to commit to maintaining 50 percent of its historic purchase volume in service, the customer would have the ability to shift up to 50 percent of its purchases to alternative wholesale providers.

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and Mitchell, such measures would expand the addressable market for alternative wholesale providers and allow them to compete more effectively.¹⁰¹

Second, Drs. Besen and Mitchell recommend that the Commission adopt rules that prevent incumbent LECs from using the recovery of customer-specific sunk costs as a means of engaging in anticompetitive conduct. As Drs. Besen and Mitchell explain, nonrecurring charges (“NRCs”) and term commitments with early termination penalties are presumably justified as a means of recovering customer-specific, sunk costs associated with providing a circuit.¹⁰²

However, incumbent LECs often exploit these mechanisms to prevent competitors from purchasing services from an alternative wholesale provider. For example, as described in Section III.B *supra*, incumbent LECs often impose excessive NRCs and offer to waive these fees only if the customer commits to purchase the circuit for a committed term. In addition, if a customer ceases purchasing a circuit prior to the expiration of its committed term, incumbent LECs often impose early termination penalties that far exceed any customer-specific sunk costs.

In order to prevent these abuses, Drs. Besen and Mitchell recommend that the Commission permit an incumbent LEC to impose a mandatory NRC for a special access service *only* if such a charge is no higher than the incumbent LEC’s customer-specific sunk costs of

¹⁰¹ See *Besen and Mitchell Paper* ¶ 50. If the Commission adopts these proposals, it must ensure that incumbent LECs do not simply override the Commission’s action by eliminating the discounts and benefits that they offer special access purchasers today. For example, the Commission should require Verizon to continue offering the discounted rates and circuit portability that it currently offers under the CDP once the volume commitment provision in the CDP has been modified. In addition, in order to ensure that incumbent LECs are not able to circumvent these measures, the Commission should prohibit incumbent LECs from entering into contract tariffs that condition discounts or benefits on a dollar- or quantity-based volume commitment that is effectively larger than the maximum percentage-based commitment permitted under this rule.

¹⁰² See *id.* ¶¶ 56-57.

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providing the service. One way the Commission could determine a reasonable proxy for such a charge would be to evaluate the NRCs currently charged by incumbent LECs in each of their service areas. For instance, if an incumbent LEC currently charges an NRC of \$200 in one of its service areas for a DS1 channel termination, that NRC would likely be sufficient to cover any customer-specific, sunk costs associated with providing a DS1 channel termination in any incumbent LEC territory. Alternatively, the Commission could use the cost-based NRC applicable to the sale of a DS1 as an unbundled network element as a benchmark for the sale of a DS1 as a special access service. If an incumbent LEC does not wish to be limited to the rate determined by one of these benchmarking techniques, the Commission could allow the incumbent LEC an opportunity to make a forward-looking, cost-based showing of its customer-specific sunk costs in order to determine a more appropriate NRC limit.

Similarly, Drs. Besen and Mitchell state that the Commission should permit an incumbent LEC to set a commitment term for the purchase of a special access service *only* if (1) the duration of the term is no longer than needed to recover any unrecovered customer-specific sunk costs of providing the service; (2) the penalty for early termination is no higher than any unrecovered customer-specific sunk costs of providing the service; and (3) the rate for recovering any unrecovered customer-specific sunk costs of the circuit is charged independently, so as to create transparency for cost recovery. Thus, incumbent LECs would not be permitted to impose NRCs and early termination penalties that, in the aggregate, exceed the customer-specific sunk costs associated with providing a circuit. In addition, the Commission should require that incumbent LECs give purchasers an option of covering these costs with an NRC to be imposed when the special access service is initiated. As Drs. Besen and Mitchell explain, these measures

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would prevent incumbent LECs from using such NRCs and early termination penalties as a means to prevent customers from purchasing services from alternative wholesale providers.¹⁰³

Third, the Commission should require that incumbent LECs offer, throughout their territories and across their DS1 and DS3 service offerings, any purchase arrangement that they offer for any DS1 or DS3 special access service in any part of their service area.¹⁰⁴ As Drs. Besen and Mitchell discuss, incumbent LECs' exclusionary purchase arrangements—especially AT&T's—vary widely among their legacy BOC territories,¹⁰⁵ but incumbent LECs have provided no explanation for why this is the case. Presumably, many of the costs associated with providing special access services in each of these territories are very similar. The Commission should permit an incumbent LEC to limit the availability of a DS1 or DS3 purchase arrangement to a subpart of its incumbent territory only if the incumbent LEC can affirmatively demonstrate that it would be unreasonable to require the incumbent LEC to offer the purchase arrangement across its entire incumbent LEC territory (e.g., by demonstrating that the incumbent LEC's costs in different areas justify limiting the availability of a purchase arrangement to a discrete subpart of its incumbent LEC territory).

Finally, it bears repeating that the Commission need not and should not wait until it has concluded its data collection and market analysis to adopt these proposals. As the Joint Commenters have explained, it is already clear that incumbent LECs possess overwhelming

¹⁰³ See *Besen and Mitchell Paper* ¶¶ 55-66.

¹⁰⁴ If the Commission were to adopt this proposal, an incumbent LEC would still be permitted to offer different tariffed rates in different geographic areas for DS1 and DS3 services. However, an incumbent LEC would be required to offer consistent discounts and other benefits throughout its incumbent LEC territory unless the incumbent LEC could affirmatively demonstrate that it would be unreasonable to require it to do so.

¹⁰⁵ See *id.* ¶ 69 & nn.29, 32.

market shares in the facilities-based provision of DS1 and DS3 special access services, which are the services subject to the exclusionary purchase arrangements discussed herein. In addition, the incumbent LECs' high market shares in the provision of these services are extremely durable because of the high entry barriers faced by competitors. Nor can there be any doubt that incumbent LECs exploit their power in these markets to induce competitors to enter into exclusionary purchase arrangements that contain anticompetitive terms and conditions. Once the Commission has adopted rules like the ones proposed herein, the benefits of such a framework, such as an increased level of entry by alternative wholesale providers, will likely take years to develop. It is critical that the Commission act now so that this long and important process can begin.

III. THE COMMISSION SHOULD UTILIZE A RELIABLE AND ADMINISTRABLE MEANS OF ASSESSING THE LEVEL OF ACTUAL AND POTENTIAL COMPETITION IN RELEVANT SPECIAL ACCESS MARKETS.

While the Commission must address the anticompetitive loyalty and tying provisions in incumbent LEC exclusionary purchase arrangements as soon as possible, it must also address the incumbent LECs' unreasonably high monthly recurring charges for DS1 and DS3 special access services as well as the unreasonably high prices that some incumbent LECs charge for Ethernet and other packet-mode wholesale special access services. The Joint Commenters applaud the Commission's decision to undertake a comprehensive and data-intensive analysis of these prices.

In the *Further NPRM*, the Commission states that it will consider the extent to which incumbent LECs face both actual and potential competition in the provision of special access services.¹⁰⁶ It plans to do so by utilizing the traditional market power framework as well as panel regression analysis. The Commission recognizes that, in applying these analytical frameworks, it

¹⁰⁶ See *Further NPRM* ¶ 72.

must balance the goal of utilizing reliable techniques for measuring incumbent LEC market power with the goal of ensuring that the analysis is administratively feasible.¹⁰⁷

The market power framework and panel regressions are two different means of identifying relevant markets in which a firm has market power. They are essentially redundant. Rather than utilizing both of these mechanisms, it would be more sensible for the Commission to use either the market power framework or panel regressions.

Regardless of which approach it selects, the Commission should focus on assessing the level of actual competition in the provision of special access services. To do this, the Commission will need to follow sound methodologies for defining relevant product and geographic markets, identifying market participants, and accounting for the specific issues implicated by measuring actual competition using either the market power framework or panel regressions.

In addition, the Commission should conclude that there is no reliable basis for predicting that significant entry will occur in any relevant special access market in which incumbent LECs have market power. Application of either the market power framework or panel regressions would yield this conclusion.

A. The Commission Should Utilize Reliable and Administrable Means of Assessing the Level of Actual Competition in the Provision of Special Access Services.

In order to follow a sound methodology for defining relevant product and geographic markets and identifying market participants the Commission should adhere to certain basic principles regardless of whether it applies the market power framework or utilizes panel regression analysis. At the same time, measuring the level of actual competition in relevant

¹⁰⁷ See *id.* ¶ 77.

markets requires that the Commission address different issues depending on whether it applies the market power framework or utilizes panel regression analysis. All of these issues are discussed below.

1. *Defining Relevant Product Markets*

In order to define relevant product markets, the Commission determines the range of products that qualify as substitutes. Under the market power framework, the Commission would apply the “hypothetical monopolist” test to determine the range of products that, if offered by a hypothetical monopolist, would enable the monopolist, not subject to price regulation, to impose (or in the case of special access, sustain) a small but significant and non-transitory increase in price (“SSNIP”) above the price levels that a competitive market would yield.¹⁰⁸ If applying panel regressions, the Commission would essentially run different regressions to determine the extent to which the availability of competing service offerings affects incumbent LEC prices. Services that do affect incumbent LEC prices would be included in the relevant product market.

As the Commission explained in the *Phoenix Order*, the fact that *some* customers may view a product as a substitute for another product does not, by itself, mean that the products belong in the same product market.¹⁰⁹ That is because a dominant firm can usually profit from a price increase even if it loses *some* sales to a product that *some* customers view as a substitute.

¹⁰⁸ See U.S. Department of Justice and the Federal Trade Commission, “Horizontal Merger Guidelines,” § 4.1.1 (revised Aug. 19, 2010) (“*Merger Guidelines*”); see also *Phoenix Order* ¶ 56 (discussing hypothetical monopolist test).

¹⁰⁹ See *id.* n.179; see also Cavalier Telephone, LLC Opposition to Qwest Petition for Forbearance, WC Docket No. 09-135, Declaration of Dr. Michael D. Pelcovits, at 8 (filed Sept. 21, 2009) (“Pelcovits Declaration”) (“The existence of some substitutability does not obviate the need to investigate whether a real-world firm (let alone a hypothetical monopolist used in the SSNIP test of market definition) can exercise market power. If it was this simple, then there would be no need for the comprehensive and sophisticated analyses routinely performed by the antitrust agencies in merger reviews or other investigations of monopolization.”).

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The key question is whether *enough* customers would switch to a competitor’s service in response to a price increase by the incumbent LEC to render price increase unprofitable.¹¹⁰ If so, the competitor’s service offering belongs in the same product market as the incumbent LEC’s special access service. This essential principle applies regardless of whether the Commission utilizes the hypothetical monopolist test or panel regressions to establish substitutability.

a. Excluding “Best Efforts” Internet Access Services

Consistent with precedent, the Commission should consider “best efforts” broadband Internet access services and dedicated special access services as belonging to different product markets. In the *AT&T/BellSouth Merger Order*, for example, the Commission explained that “enterprise customers frequently purchase high-capacity transmission services, including Frame Relay, Asynchronous Transfer Mode (ATM), Gigabit Ethernet, and similar services provided via emerging technologies.”¹¹¹ The Commission found that, to the extent that cable companies provide services that are competitive with these special access services, they do so using fiber facilities (as opposed to the hybrid fiber coaxial (“HFC”) facilities used to provide “best efforts” cable modem services).¹¹² The Commission therefore performed a separate analysis of competition in the market for “mass market high-speed Internet access services,” such as cable

¹¹⁰ See *Phoenix Order* n.167 (citing Pelcovits Declaration at 10) (“[T]he key empirical test is *how much switching* between [product A and product B] is due to changes in the relative prices (*i.e.*, cross-elasticity of demand).”) (emphasis in original). It is also worth noting that, even if most customers would switch to another service in response to a price increase, a firm can still exercise market power *vis a vis* those customer who would not switch if the firm can engage in price discrimination.

¹¹¹ *In the Matter of AT&T Inc. and BellSouth Corp. Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd. 5662, ¶ 63 (2007) (“*AT&T-BellSouth Merger Order*”) (internal citation omitted).

¹¹² See *id.* n.92.

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modem services,¹¹³ and competition in the market for enterprise special access services.¹¹⁴

Similarly, in the *Phoenix Order*, the Commission analyzed competition in the provision of “best efforts” broadband Internet access and other services sold to mass market customers¹¹⁵ separately from competition in the provision of “high-capacity transmission services” (e.g., DS1 and DS3 services) and other services sold to enterprise customers.¹¹⁶

There is no reason for the Commission to depart from that precedent here. The available evidence overwhelmingly demonstrates that “best efforts” broadband Internet access services are not in the same product markets as dedicated special access services. Stated differently, there is ample evidence to show that business customers (as well as their service providers) do not view “best efforts” broadband Internet access services as substitutes for dedicated special access services.¹¹⁷ For numerous reasons, it is unlikely that enough purchasers of dedicated special access services would switch to “best efforts” broadband Internet access services in response to a small but significant (e.g., five percent)¹¹⁸ increase in the price of their special access services to make such an increase unprofitable.

¹¹³ See *id.* ¶¶ 113-20.

¹¹⁴ See *AT&T-BellSouth Merger Order* ¶¶ 62-87.

¹¹⁵ See *Phoenix Order* ¶¶ 51-53.

¹¹⁶ See *id.* ¶ 62.

¹¹⁷ See, e.g., Declaration of Kevin F. Brand on behalf of EarthLink, Inc. ¶ 9 (dated Feb. 8, 2013) (attached hereto as “Appendix D”) (“*Brand Declaration*”) (“In light of the demands of business customers that purchase special access services . . . and the differences between special access services and “best efforts” Internet access services, I do not believe that the vast majority of businesses currently purchasing special access services view “best efforts” Internet access services as a viable substitute.”).

¹¹⁸ See *Merger Guidelines* § 4.1.2.

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First, most business customers purchasing special access services demand guaranteed bandwidth,¹¹⁹ and special access services are marketed specifically to meet this need.¹²⁰ But “best efforts” services, as the name implies, do not provide guaranteed bandwidth. As the record demonstrates, “best efforts” broadband Internet access services provided over cable companies’ HFC networks rely on a shared network architecture that makes it difficult, if not impossible, to deliver guaranteed bandwidth.¹²¹

The “best efforts” services offered over incumbent LECs’ networks cannot provide the guaranteed speeds that most special access customers demand either. For instance, Verizon’s FiOS networks utilize a Passive Optical Network (“PON”) or point-to-multipoint architecture in which bandwidth is shared among subscriber locations.¹²² Accordingly, as with cable modem

¹¹⁹ See *Brand Declaration* ¶ 4.

¹²⁰ See, e.g., EarthLink Business, “Internet,” available at <http://www.earthlinkbusiness.com/products/internet.xea> (last visited Feb. 11, 2013) (highlighting that EarthLink Business’ T1, T3, and Ethernet services provide “[g]uaranteed bandwidth, giving you the confidence to run the applications that you need”); MegaPath, Broadband Comparison, available at http://www.megapath.com/megapath/assets/File/PDF/ProductSheets/MegaPath_BroadbandComparison.pdf (marketing MegaPath’s T1, DS3, and Business Ethernet services as best suited for businesses that “require mission-critical reliability”).

¹²¹ See, e.g., Letter from Joshua M. Bobeck, Counsel for PAETEC Holding Corp., and Thomas Cohen, Counsel for XO Communications LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25, at 24-25 & n.87 (filed May 28, 2010) (discussing and citing record evidence that “HFC networks are not capable of providing the features demanded by special access customers such as guaranteed bandwidth”); Workshop Response of tw telecom, One Communications, Cbeyond and Integra, WC Docket No. 05-25, at 5-7 (filed Sept. 15, 2009); see also Reply Comments of Cbeyond, Integra, One Communications, and tw telecom, WC Docket Nos. 06-172 & 07-97, at 11-12 (filed Oct. 21, 2009).

¹²² See, e.g., Brian Santo, “Verizon open to 10G PON bids in 2011,” *CED Magazine*, (June 23, 2010), available at <http://www.cedmagazine.com/news/2010/06/verizon-open-to-10g-pon-bids-in-2011> (last visited Feb, 11, 2013) (stating that Verizon’s FiOS system is based on a PON architecture); The Fiber Optic Association, “Fiber to the Home Architectures,” available at <http://www.thefoa.org/tech/ref/appln/FTTHarch.html> (last visited Feb. 11, 2013) (describing the

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services, subscribers can experience slower download speeds at peak usage times.¹²³ Nor can “best efforts” services provided via DSL technology deliver the guaranteed bandwidth demanded by most purchasers of special access services. As incumbent LECs explain to prospective purchasers of their business ADSL services, speeds vary based on a number of factors, including the distance between the customer’s location and the central office.¹²⁴

Second, the vast majority of “best efforts” broadband Internet access services do not provide the symmetrical bandwidth demanded by most businesses that purchase special access

PON architecture); Multicom Products, “Three Fundamental Architectures for FTTH,” *available at* http://www.multicominc.com/stimulus/FTTH_architectures.htm (last visited Feb. 11, 2013) (same).

¹²³ See Multicom Products, “Three Fundamental Architectures for FTTH,” *available at* http://www.multicominc.com/stimulus/FTTH_architectures.htm (last visited Feb. 11, 2013) (“Also, because the bandwidth in a PON is not dedicated to individual subscribers, data transmission speed may slow down during peak usage times in an effect known as latency.”); Verizon, “FiOS Internet,” *available at* [https://www22.verizon.com/support/residential/internet/fiosinternet/general+support/getting+star ted/questionsone/85270.htm](https://www22.verizon.com/support/residential/internet/fiosinternet/general+support/getting+started/questionsone/85270.htm) (last visited Feb. 11, 2013) (“Although we build our network with very fast connections, your Internet traffic shares the same paths as traffic from other subscribers. At times, the amount of traffic generated by other subscribers may impact the throughput performance of your FiOS service.”); Verizon, “Verizon FiOS Internet for Business Maximum Connection Speed,” *available at* https://www22.verizon.com/foryoursmallbiz/Unprotected/Common/HTML/BroadBand/BFIOS/BB_ConnectionSpeeds.htm (last visited Feb. 11, 2013) (“Speed and uninterrupted use of the service are not guaranteed.”).

¹²⁴ See, e.g., AT&T, “AT&T DSL High Speed – Are High Speed Internet speeds guaranteed?” *available at* <http://www.att.com/esupport/article.jsp?sid=KB400186&cv=801&title=Are%20High%20Speed%20Internet%20speeds%20guaranteed%3F#fbid=6lyuBPW-tCq> (last visited Feb. 11, 2013) (“The speed range of your High Speed Internet service is based on the distance between your home/office and the DSL-equipped Central Office or Gateway, as well as the condition of your line. . . . There’s no guarantee that you will achieve the maximum speed in the range.”); Verizon, “For Your Business, DSL Prices and Packages,” *available at* http://www22.verizon.com/foryourbusiness/dslinternetservices/internetaccess/sub_products/dslprices_e.asp (last visited Feb. 11, 2013) (“There are a number of factors that influence speed. . . . [T]he actual connection and throughput speeds of the service are not guaranteed.”).

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services.¹²⁵ For instance, all of Cox Business’s “best efforts” “Business Internet Packages” provide asymmetrical bandwidth¹²⁶ while its fiber-based “Optical Internet” services provide “dedicated, symmetrical access” so that “[businesses] always get the same upload and download capacity across [their] Internet access connection.”¹²⁷ Similarly, MegaPath markets its T1 and “Business Ethernet” services as best suited for businesses that need “symmetrical upload and download speeds” and its DSL service as best suited for “[b]usinesses that need affordable service with fast download speeds, but don’t require fast upload speeds.”¹²⁸

Third, the vast majority of “best efforts” Internet access services do not provide the level of reliability demanded by most purchasers of special access services.¹²⁹ For instance, business customers expect their special access services to be repaired within a few hours (e.g., 4 to 6 hours) of an outage, and the Service Level Agreements (“SLAs”) offered by providers of special

¹²⁵ See *Brand Declaration* ¶ 5.

¹²⁶ See Cox Business, “Data & Internet Pricing & Plans serving Northern Virginia,” available at <http://ww2.cox.com/business/northernvirginia/data/pricing.cox> (last visited Feb. 11, 2013).

¹²⁷ See Cox Business, “Cox Optical Internet,” available at <http://ww2.cox.com/business/northernvirginia/data/optical-internet.cox> (last visited Feb. 11, 2013).

¹²⁸ See MegaPath, “Broadband Comparison,” available at http://www.megapath.com/megapath/assets/File/PDF/ProductSheets/MegaPath_BroadbandComparison.pdf; see also XO Communications, “T1/DS1 Services,” available at <http://www.xo.com/services/network/dia/Pages/T1.aspx> (last visited Feb. 11, 2013) (“And because XO offers symmetrical bandwidth, you can enjoy the same speeds when you’re uploading files as when you’re downloading them—even if you’re doing both simultaneously. Don’t try that on a cable or DSL connection!”).

¹²⁹ See *Brand Declaration* ¶ 6.

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access services are designed accordingly.¹³⁰ By contrast, the SLAs—if any—offered with “best efforts” Internet access services typically provide that service will be restored within a longer timeframe (e.g., 24 hours).¹³¹

Fourth, some “best efforts” Internet access services do not provide the level of security demanded by most businesses that purchase special access services.¹³² For example, the dedicated connections provided by DS1, DS3, and Ethernet special access services are inherently more secure than the shared connections provided by “best efforts” cable modem services.¹³³

Finally, there are substantial price differences between “best efforts” broadband Internet access services and dedicated special access services. For example, competitive LECs frequently offer T1/DS1 special access services to businesses at monthly prices that are approximately three to four times higher than the prices of their “best efforts” DSL services.¹³⁴ Similarly, Verizon

¹³⁰ *See, e.g., id.* (explaining that EarthLink’s SLAs “for dedicated special access services provide that EarthLink’s ‘Mean Time to Repair’ (‘MTTR’) will be between 4 to 6 hours depending on the type of service”).

¹³¹ *See, e.g., id.*; AT&T, “AT&T High Speed Internet Business Edition Service Level Agreement,” available at <http://www.att.com/gen/general?pid=6622> (last visited Feb. 11, 2013) (providing that AT&T’s U-verse and DSL “High Speed Internet Business Edition” services will be restored within 24 hours).

¹³² *See Brand Declaration* ¶ 7.

¹³³ *See, e.g., TRRO* ¶ 193 (acknowledging the security limitations associated with cable modem service); Reply Declaration of Dennis W. Carlton *et al.*, ¶ 24 (dated Feb. 24, 2010) (attached as Exhibit A to Reply Comments of AT&T Inc., WC Docket No. 05-25 (filed Feb. 24, 2010)) (noting that there are “security concerns when many different customers are sharing network capacity”); XO Communications, “T1/DS1 Services,” available at <http://www.xo.com/services/network/dia/Pages/T1.aspx> (last visited Feb. 11, 2013) (“Unlike DSL or cable connections that are shared among a number of users, a business T1 line is a private, direct line between your business and the Internet”).

¹³⁴ *See, e.g., EarthLink Business*, “Business DSL,” available at <http://www.earthlinkbusiness.com/DSL/> (last visited Feb. 11, 2013) (offering “Standard DSL” service (up to 6.0 Mbps/768 Kbps) starting at \$67 per month and standalone ADSL service (up

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offers DS1 special access services at monthly prices that can be approximately five to six times those it offers for “best efforts” business DSL services.¹³⁵ And AT&T offers its DS1 special access services at monthly prices that can be approximately seven to eight times its prices for 1.5 Mbps/1 Mbps “best efforts” U-verse Internet access service for businesses.¹³⁶ Moreover, the monthly prices offered for DS1 special access services are substantially higher than those offered for “best efforts” cable modem services.¹³⁷ As the FCC recognized nearly a decade ago,

to 7 Mbps/768 Kbps) starting at \$97 per month); EarthLink Business, “Business T1,” *available at* <http://www.earthlinkbusiness.com/T1/> (last visited Feb. 11, 2013) (offering “Business T1” service as low as \$289 per month); MegaPath, “Business DSL Services,” *available at* <http://www.megapath.com/data/dsl/> (last visited Feb. 11, 2013) (offering “Lineshare ADSL Internet” (up to 6 Mbps/768 Kbps) starting at \$45 per month and standalone ADSL service (ranging from up to 1.5 Mbps/384 Kbps to up to 20 Mbps/1 Mbps) starting at \$59 per month); MegaPath, “Bonded T1 & Full T1 Services,” *available at* <http://www.megapath.com/data/t1/> (last visited Feb. 11, 2013) (offering “Full T1” service starting at \$299 per month and “Bonded T1” service (speeds of 3, 4.5, 6, 7.5, 9, 10.5, and 12 Mbps) starting at \$554 per month).

¹³⁵ See Verizon Business, “Small Business High Speed Internet, Broadband (DSL) Internet” *available at* <http://smallbusiness.verizon.com/products/internet/hsi/packages.aspx> (last visited Feb. 11, 2013) (offering “High Speed Internet (DSL)” service (up to 3 Mbps/768 Kbps) in Washington, DC at \$47.99 per month); Verizon Telephone Companies Tariff F.C.C. No. 1 § 14.7 (indicating that Verizon has received Phase II pricing flexibility for channel terminations in the Washington DC MSA); *id.* § 7.5.9(A)(1)(a) (indicating that, in areas subject to Phase II pricing flexibility, Verizon’s monthly rate for a DS1 channel termination is \$239.17, \$300.56, or \$310.64, depending on the wire center of the particular location served.)

¹³⁶ See AT&T, “AT&T U-verse High Speed Internet – Business Edition,” *available at* <http://www.att.com/smallbusiness/common/productDetails.jsp?skuId=sku341730> (last visited Feb. 11, 2013) (offering “U-verse High Speed Internet – Business Edition” (up to 1.5 Mbps/1 Mbps) in Little Rock, Arkansas starting at \$30/month); Southwestern Bell Telephone Company Tariff F.C.C. No. 73 § 39.2(A) (indicating that AT&T has received Phase II pricing flexibility for channel terminations in the Little Rock, Arkansas MSA); *id.* § 39.5.2.7.1(A) (indicating that, in areas subject to pricing flexibility, AT&T’s monthly rate for a DS1 channel termination in Arkansas is \$215.00, \$225.00, or \$240.00, depending on the wire center of the particular location served.).

¹³⁷ See, e.g., Comcast, “Business Internet Plans: Plans & Pricing,” *available at* <http://business.comcast.com/smb/services/internet/plans-c> (last visited Feb. 11, 2013) (offering “Comcast Business Class Internet” (up to 16 Mbps/3 Mbps) at \$69.95 per month); Cox Communications, “Data & Internet Pricing & Plans Serving Northern Virginia,” *available at*

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providers of DS1 special access services could not offer these rates and retain their customer bases if enough customers viewed “best efforts” broadband Internet access services as a viable substitute.¹³⁸

Furthermore, there are also stark differences between the prices of “best efforts” Internet access services and low-capacity Ethernet special access services marketed to businesses. For instance, MegaPath offers business DSL service (up to 6 Mbps/768 Kbps) starting at \$45 per month¹³⁹ while it offers low-capacity business Ethernet services for hundreds of dollars per month (e.g., 2 Mbps x 2 Mbps service for \$199 per month, 3 Mbps x 3 Mbps service for \$299 per month, and 5 Mbps x 5 Mbps service for \$499 per month).¹⁴⁰ Although most Ethernet services providers do not advertise their prices online, the pricing data submitted in response to the mandatory special access data request¹⁴¹ will undoubtedly support a finding that the prices of “best efforts” broadband Internet access services and dedicated special access services marketed to businesses differ substantially. For all of these reasons, best efforts services do not belong in the same product market as special access services.

<http://ww2.cox.com/business/northernvirginia/data/pricing.cox> (last visited Feb. 11, 2013) (offering “Cox Business Internet” (15 Mbps/5 Mbps) at \$59.99 per month).

¹³⁸ See *TRRO* ¶ 193 (“Commenters also note that businesses that do require DS1 loops are willing to pay significantly more for them than the cost of a cable modem connection, which also indicates that the two are not interchangeable.”).

¹³⁹ See *supra* note 134.

¹⁴⁰ MegaPath, “MegaPath Business Ethernet Connection,” *available at* <http://www.megapath.com/data/ethernet/> (last visited Feb. 11, 2013).

¹⁴¹ See *Data Request Order*, Appendix A, § II.A.12 (requesting pricing information for competitive providers’ dedicated special access services, including Ethernet services); *id.*, Appendix A, § II.B.4 (requesting pricing information for incumbent LECs’ dedicated special access services, including Ethernet services); *id.*, Appendix A, § II.C.2.d. (requesting pricing information for “best efforts” broadband Internet access services).

b. Using Circuit Capacities to Delineate Markets

In order to simplify the definition of product markets, the Commission should consider defining product markets based on the capacity of the dedicated services in question. This is an approach that the Commission has used in the past.¹⁴² The approach is generally sound because business customers are unlikely to view lower capacity dedicated services as substitutes for much higher capacity dedicated services. This is true regardless of whether the customer is purchasing a TDM-based service or a packet-mode service.

c. Accounting for Differences in Pricing

In defining product markets, the Commission should account for the differences in the manner in which services are priced. For example, incumbent LECs offer DS1 and DS3 channel termination and transport mileage services separately, subject to different prices. Moreover, it is quite obvious that customers would not view last-mile channel termination and an interoffice mileage circuit as substitutes for each other. It follows that DS1 and DS3 channel termination services and transport services should be treated as separate product markets.

In contrast, Ethernet service providers generally do not charge separate rates for transport mileage within a defined local area. Instead, they generally charge a single price for the channel termination and transport components of the service. It makes sense therefore to treat Ethernet service to a particular location as a relevant product market without distinguishing between channel termination and transport circuits.

d. Accounting for Differences in Wholesale and Retail Markets

The Commission should treat services sold to wholesale and retail purchasers as belonging to separate relevant product markets. The Commission has often followed this

¹⁴² See, e.g., *TRRO* ¶¶ 166, 170-171.

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approach in the past with regard to DS1, DS3 and other enterprise services.¹⁴³ Moreover, as explained in a declaration recently filed in this proceeding by Michael Buso of tw telecom, the service characteristics of retail and wholesale packet-mode special access services justify treating retail and wholesale packet-mode special access services as separate product markets.¹⁴⁴

2. Defining Relevant Geographic Markets

After defining product markets, the Commission must define relevant geographic markets. In the past, the Commission has treated each specific point-to-point route of a transmission services as a separate geographic market.¹⁴⁵ In the case of channel termination services, the Commission has held that the relevant geographic market is the commercial building in which the end user is located.¹⁴⁶ In the case of dedicated transport routes between incumbent LEC central offices, the Commission has held that the relevant geographic area is the connection between the two central offices.¹⁴⁷

In this proceeding, the Commission must define the geographic area in which a service provider's network must be located in order to offer a competitive service at a particular commercial building or on a particular interoffice route. Under the market power framework, the

¹⁴³ See *Phoenix Order* ¶ 46; *SBC-AT&T Merger Order* ¶¶ 24-80; *Verizon-MCI Merger Order* ¶¶ 24-81; *AT&T-BellSouth Merger Order* ¶¶ 27-87.

¹⁴⁴ See Declaration of Michael Buso of Behalf of tw telecom inc., ¶¶ 4-5 (dated June 28, 2012) (attached as Attachment 1 to Ad Hoc *et al.* Petition to Reverse Forbearance).

¹⁴⁵ See, e.g., *Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area*, Second Report and Order in CC Docket No. 96-149 and Third Report and Order in CC Docket No. 96-61, 12 FCC Rcd. 15756, ¶ 5 (1997); *SBC-AT&T Merger Order* ¶ 28; *Verizon-MCI Merger Order* ¶ 28.

¹⁴⁶ See, e.g., *Phoenix Order* ¶ 64.

¹⁴⁷ See, e.g., *id.* ¶ 7, n.233.

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Commission should do so by determining the geographic area in which a hypothetical monopolist could impose a SSNIP in the relevant product market. When using panel regressions, the Commission would test to see the extent to which the price charged in a particular product market at a particular location is affected by the presence of one or more competitors near the location. Market experience indicates that, in the vast majority of circumstances, a service provider can only compete effectively to serve a particular location if its network already reaches the location.¹⁴⁸

The competitive relevance of nearby network facilities differs depending on the type of service demanded at a particular location. The higher the potential profit associated with providing the service demanded at a particular location, the greater the investment in network construction a competitor would likely be willing to undertake in order to provide the service.¹⁴⁹ Conversely, the lower the potential profit associated with providing the service demanded at the location, the less construction a competitor would likely be willing to undertake to provide the service. Given the limited ability of competitors to deploy facilities to provide mid- and low-capacity special access services, it is likely that the FCC will need to treat only competitors with network facilities that actually reach the location at which a customer demands service as within the relevant geographic market.

¹⁴⁸ See, e.g., *tw telecom Build/Buy Analysis*; Declaration of Ajay Govil on behalf of XO Communications, LLC, ¶¶ 13-16 (dated Aug. 8, 2007) (attached to Comments of XO Communications, LLC, Covad Communications Group, Inc., and NuVox Communications, WC Docket No. 05-25 (filed Aug. 8, 2007)) (explaining that “[t]he construction of laterals to connect office buildings to the XO network is extremely difficult, time consuming and costly, even when adding buildings to our [Metro Fiber] Rings that are located in close proximity to our MF Rings”).

¹⁴⁹ See, e.g., *tw telecom Build/Buy Analysis* at 1; *Ad Hoc et al. Petition to Reverse Forbearance* at 47-49 & nn.159-166; *Phoenix Order* n.222.

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In addition, as is the case with defining product markets, the Commission should account for the manner in which service providers price their offerings in defining geographic markets. For example, since, as discussed, incumbent LECs offer DS1 and DS3 channel termination facilities and DS1 and DS3 interoffice transport services as separate services subject to different rates, it makes sense to establish a separate geographic market for DS1 and DS3 channel termination and transport services. However, because incumbent LECs and other service providers generally do not assess a separate mileage or transport charge for Ethernet services, it makes sense to define geographic markets for Ethernet services based solely on the customer's location.

Moreover, the Commission will need to aggregate geographic markets subject to similar levels of competition so as to make the analysis administratively feasible.¹⁵⁰ Several parties in this proceeding, including BT and tw telecom, have proposed viable means of aggregating geographic areas in which incumbent LECs face similar levels of competition in relevant special access product markets.¹⁵¹

¹⁵⁰ The Commission has often done this in the past. *See, e.g., id.* ¶ 64; *AT&T-BellSouth Merger Order* ¶ 31; *LEC Classification Order* ¶ 5.

¹⁵¹ *See* Comments of BT Americas Inc., WC Docket No. 05-25 *et al.*, at 25-26 (filed Jan. 19, 2010) (“*BT January 19, 2010 Comments*”) (proposing that the Commission establish a national market for lower-capacity special access services for which incumbent LECs do not face substantial competition in any geographic area); Reply Comments of tw telecom, WC Docket No. 05-25 *et al.*, at 18 (filed Feb. 24, 2010) (“*tw telecom February 24, 2010 Reply Comments*”) (proposing use of wire centers to aggregate point-to-point connections subject to similar levels of competition); Declaration of Bridger M. Mitchell, ¶¶ 38-49 (dated Jan. 19, 2010) (attached as Attachment A to Comments of Sprint Nextel Corporation, WC Docket No. 05-25 *et al.* (filed Jan. 19, 2010) (“*Sprint January 19, 2010 Comments*”)) (“*Mitchell January 19, 2010 Declaration*”) (same).

3. *Identifying Market Participants*

The FCC should treat a firm as a participant in a relevant market only to the extent that the firm has deployed facilities (including those obtained via IRUs) in the geographic market that can be used to provide a service in the relevant product market. Again, this is the approach utilized by the Commission in the *Phoenix Order*.¹⁵² Under this approach, the Commission should not consider a firm that relies on UNEs or some other form of leased incumbent LEC facilities as a market participant.

Excluding firms that rely on transmission facilities leased from incumbent LECs makes sense for several reasons. To begin with, an incumbent LEC can raise the costs of rivals that rely on its leased transmission facilities. It can do so by denying, delaying and degrading the quality of the UNE or other leased facility. This conduct enables the incumbent LEC to limit competitors' ability to offer products that are of superior quality or are priced below the incumbent LECs' offerings.

UNEs are also subject to important eligibility restrictions and usage caps that further diminish the extent to which they can be relied upon by competitors to compete with incumbent LECs in the provision of dedicated services.¹⁵³ In addition, UNEs are gradually being eliminated. For example, DS1 and DS3 loop and transport facilities are not available when increases in the number of business access lines and/or collocations in relevant a wire center

¹⁵² See *Phoenix Order* ¶ 71 (counting as competitors in the wholesale loop market only those service providers that “have constructed their own last-mile connections to enterprise customers, and . . . offer these services to competitors as wholesale inputs”).

¹⁵³ See, e.g., 47 C.F.R. § 51.309 (b) (prohibiting use of UNEs exclusively for the provision of mobile wireless service or interexchange service); *id.* § 51.318(b) (establishing eligibility criteria for enhanced extended links); *id.* § 51.319(a)(4)(ii) (capping the number of UNE DS1 loops at 10 per building); *id.* § 51.319(a)(5)(ii) (capping the number of UNE DS3 loops at one per building).

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cause the non-impairment triggers to be met.¹⁵⁴ Unbundled copper loop facilities are also eliminated where an incumbent LEC replaces the legacy copper with fiber local transmission facilities.¹⁵⁵ Moreover, absent Commission action, all DS1 and DS3 UNEs will disappear once incumbent LECs complete the transition to packet-mode networks and discontinue offering TDM-based services entirely.

In addition, the Commission should only treat a competitor as a market participant if its facilities can actually be used to provide services deemed to belong to the relevant product market. For example, as explained, “best efforts” cable modem services offered via traditional HFC network facilities are not substitutes for dedicated special access services. Even if it is possible that a cable company might deploy facilities that enable it to provide services that are substitutes for special access services in the future, it cannot be treated as an existing market participant if its facilities can only be used to offer “best efforts” services.

Finally, the FCC should not consider firms that are in financial distress to be market participants. Business customers do not perceive such firms to be viable alternatives to the incumbent LEC. For example, if a competitor enters bankruptcy, business customers are likely to conclude that the company is not stable enough to be trusted as a provider of telecommunications services. Such a competitor’s presence in the market is therefore unlikely to place any competitive pressure on the incumbent.

¹⁵⁴ See, e.g., *id.* § 51.319 (a)(4) (defining the non-impairment standard for DS1 loops); *id.* § 51.319 (a)(5) (defining the non-impairment standard for DS3 loops).

¹⁵⁵ See, e.g., *id.* (defining limited unbundling requirements applicable to loop facilities where copper is replaced by fiber).

4. *Applying the Established Market Power Framework to Measure Actual Competition in Relevant Special Access Markets*

The established market power framework is a reliable and efficient means of identifying the relevant special access markets in which incumbent LECs currently have the ability to set and maintain supra-competitive prices. Under the market power framework, the Commission assesses market share, demand elasticity, and supply elasticity in the relevant markets, and it assesses the extent to which the incumbent possesses advantages by virtue of its superior cost structure, size and resources as compared to other market participants. In applying this framework to the special access market, the Commission should consider the following.

As mentioned above, the Commission will need to combine relevant geographic markets into aggregations of similarly-situated geographic markets, such as wire centers or census blocks. But the Commission is unlikely to be able to conduct a market power analysis in every such aggregated geographic unit. Accordingly, the Commission will likely need to conduct a market power analysis in a statistically meaningful subset of geographic units. It will then need to develop a means of identifying those geographic areas in which incumbent LECs possess market power in a relevant product market. Several of the Joint Commenters have suggested means of classifying aggregated geographic areas based on the percentage of commercial buildings in an area that can be served by multiple competitor networks.¹⁵⁶ The analysis of the information gathered in response to the data request may yield even more reliable means of classifying similarly-situated geographic areas.

¹⁵⁶ See, e.g., *BT January 19, 2010 Comments* at 25-29 (describing means of aggregating similarly situated wire centers based on the number of facilities-based competitors with facilities proximate to commercial buildings in the wire center); see also *Mitchell January 19, 2010 Declaration* ¶¶ 38-49 (proposing that the Commission aggregate wire centers by using the proxy of the number of business lines and collocations in the wire centers).

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In all events, the Commission should choose a methodology for categorizing similarly-situated aggregated geographic areas that relies on a count of the network facilities, including last-mile facilities, actually deployed by competitors in the relevant geographic units. This approach is likely to be far more reliable than utilizing measures of the revenue opportunities (e.g., number of business access lines). This is because, as *tw telecom* has explained, the wide variation in market conditions among geographic areas (e.g., different zoning and public rights of way access rules, different pole attachment prices, different building access policies, different labor costs, varying levels of congestion and density and so on) make it very difficult to reliably predict the circumstances in which existing competitors can or will deploy local transmission facilities, especially last-mile facilities.¹⁵⁷ Moreover, as explained further in Section III.B *infra*, there is no basis for concluding that any relevant special access market is subject to potential competition. It follows that the Commission should rely on measures of actual competition, such as the number and location of competitor networks, including last-mile facilities, already deployed in a geographic area as a means of classifying geographic units as either subject to competition or not subject to competition.

a. Market Shares

The Commission's assessment of actual competition begins with an analysis of incumbent LEC market and alternative providers' shares. As explained, it is already clear that incumbent LECs have extremely high market shares in the provision of DS1 and DS3 services. Nevertheless, to the extent that the Commission finds it helpful to revisit this issue, it should utilize a methodology for measuring market shares that is forward-looking in the sense that it accounts for the possibility that a firm would use its existing facilities to provide a service in the

¹⁵⁷ See *tw telecom February 24, 2010 Reply Comments* at 21.

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future.¹⁵⁸ Specifically, the Commission should count the number of competitors in the relevant geographic area that have deployed facilities that can be used to provide the relevant service. For example, an incumbent LEC can provide Ethernet and other packet-mode services to essentially any commercial building and along any point-to-point transport route reached by its network. Thus, for purposes of the market share analysis, an incumbent LEC should be treated as serving all locations served by its network. Using this approach to assessing market shares and market concentration will enable the Commission to assess the position of a firm in a product, like Ethernet, that is being gradually deployed over pre-existing network facilities.

Moreover, the Commission should follow the *Phoenix Order* precedent and presume that the presence of only one competitor is insufficient to discipline incumbent LEC conduct in a relevant market. For example, in the *Phoenix Order*, the Commission concluded that Qwest continued to possess market power where it faced competition from only one competitor (Cox) that owned its own local transmission facilities, including last-mile facilities.¹⁵⁹ Indeed, Dr. Besen has found that over the range of markets studied by economists, it is almost always the case that the presence of a single competitor is insufficient to discipline a firm's conduct in a relevant market.¹⁶⁰ Consistent with this view, in the United Kingdom, Ofcom concluded that a

¹⁵⁸ See *Further NPRM* ¶ 73.

¹⁵⁹ See *Phoenix Order* ¶ 80; see also *TRRO* ¶¶ 193-94 (explaining that the presence of a single cable company competitor is insufficient to conclude that competition is possible in the provision of a particular type of local transmission facility).

¹⁶⁰ See generally Declaration of Dr. Stanley M. Besen (dated Apr. 22, 2009) (attached to Letter from Andrew L. Lipman, Counsel for TDS Metrocom *et al.*, and Thomas Jones, Counsel for Cbeyond *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 08-24 (filed Apr. 23, 2009)).

single competitor is insufficient to discipline the incumbent LEC's prices in the provision of local transmission services.¹⁶¹

b. Demand and Supply Elasticity

In addition to assessing market shares, the Commission must assess demand elasticity and supply elasticity in the relevant markets. Demand elasticity measures the extent to which a customer is willing to switch to an alternative provider in response to a price increase. There are two key issues that the Commission should account for in assessing demand elasticity. *First*, as Dr. Mitchell has explained, an incumbent LEC has an extremely low firm elasticity of demand¹⁶² where no competitor has deployed facilities capable of providing the service demanded by the customer in the relevant geographic market (e.g., commercial building or point-to-point transport route).¹⁶³

Second, even in those locations in which a competitor has deployed facilities that can be used to provide the services demanded by the customer, incumbent LEC exclusionary purchase arrangements are likely to substantially diminish a customer's willingness to switch service providers in response to a price increase by the incumbent LEC. As a result, incumbent LECs face extremely low demand elasticity from special access customers (again, the incumbent LECs face low firm elasticity of demand).

¹⁶¹ See Ofcom Business Market Connectivity Review § 6.38 (Jan. 17, 2008), available at http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr/summary/bcmr_pt2.pdf.

¹⁶² Economists distinguish between (1) firm elasticity of demand, which measures the extent to which a particular firm's customers would switch to a different provider of the same product if the firm were to increase its price and (2) market elasticity of demand, which measures the extent to which customers would switch to a different product if the price of a product were to increase. The key issue here is an incumbent LEC's firm elasticity of demand.

¹⁶³ See Mitchell January 2010 Declaration ¶ 67.

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Nor is supply elasticity particularly high. Supply elasticity measures a service provider's ability to respond to a price increase from a customer's existing provider by supplying a lower-priced alternative. As with demand elasticity, a service provider's ability to undercut an incumbent LEC's price increase with an alternative, lower-priced service offering in a particular location depends on the extent to which the alternative provider can deploy facilities to the location in question.

A key aspect of measuring supply elasticity is a determination of the level of entry barriers in the relevant market. As described Section II.A *supra*, there are significant barriers to deployment of transmission facilities used to provide special access services. These barriers severely limit an alternative service provider's ability to extend its network to a new location in response to the incumbent LEC price increase. In addition, as further explained in Section II.B *supra*, incumbent LEC exclusionary purchase arrangements limit the addressable market for competitive providers of special access services. Indeed, these arrangements significantly diminish the ability of competitors to offer a lower priced alternative to the incumbent even where the competitor has deployed network facilities to the locations where the customer demands the service. The Commission must account for these effects in assessing supply elasticity in special access markets.

c. Incumbent LEC Cost Advantages

The Commission should also account for the incumbent LECs' other structural advantages when competing in relevant special access markets. Most importantly, incumbent LECs have enormous first-mover advantages in the provision of special access services.¹⁶⁴

¹⁶⁴ See, e.g., Ad Hoc *et al.* Petition to Reverse Forbearance at 54 & nn.184-186; *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of*

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Incumbent LECs have already deployed network facilities to virtually every commercial building in their respective incumbent LEC territories. This means that, unlike competitors, they need not establish new arrangements to obtain access to in-building ducts and risers in multi-dwelling units, to public rights of way, or to pole attachments¹⁶⁵ (in fact, in many cases the incumbent LECs own the poles).¹⁶⁶ They have already cleared these significant hurdles, and they already have network facilities in place needed to provide essentially any type of special access service.

Incumbent LECs also benefit from economies of scale and scope.¹⁶⁷ Their larger base of customers enables them to lower their fiber deployment costs by deploying new fiber facilities to a large number of locations in a single deployment and to obtain volume discounts on equipment needed to upgrade service arrangements. In addition, AT&T and Verizon are two of the largest long distance, broadband and mobile wireless service providers in the country. To the extent that these businesses share joint and common costs with special access, as is the case for example

Wireline Services Offering Advanced Telecommunications Capability, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd. 16978, ¶ 238 (2003) (“*TRO*”) (subsequent history omitted) (discussing incumbent LECs’ first-mover advantages in loop deployment); *Phoenix Order* ¶ 90 (“We see nothing in the record to indicate that the passage of time has lowered these barriers for competitive LECs that do not already have an extensive local network used to provide other services to enterprise locations today.”).

¹⁶⁵ See, e.g., *Ad Hoc et al. Petition to Reverse Forbearance* at 54 & nn.183-187; *Phoenix Order* n.268 (citing record evidence).

¹⁶⁶ See *Implementation of Section 224 of the Act*, Report and Order and Order on Reconsideration, 26 FCC Rcd. 5240, ¶ 206 (“[I]ncumbent LECs as a whole appear to own approximately 25-30 percent of poles . . .”).

¹⁶⁷ See, e.g., *Ad Hoc et al. Petition to Reverse Forbearance* at 55-56 & nn.187-191.

with interoffice transport facilities, the resulting scope economies again give the incumbents lower average costs than their competitors.¹⁶⁸

Notwithstanding the incumbent LECs' advantages, it seems possible that alternative providers of special access could effectively compete in more relevant special access markets than is the case today, but they are prevented from doing so by incumbent LEC exclusionary purchase arrangements. As discussed in Section II.B.4 *supra*, Drs. Besen and Mitchell have concluded that incumbent LEC exclusionary purchase arrangements artificially limit the extent to which non-incumbent LEC competitors can establish scale economies by limiting the size of the market that such competitors can serve. The Commission should account for these advantages when assessing incumbent LEC market power in relevant special access markets.

d. Other Factors Relevant to the Market Power Analysis

Once the Commission has identified the relevant markets in which incumbent LECs have market power in the provision of special access, it should assess the reasonableness of incumbent LEC special access prices in those markets. As several of the Joint Commenters and Sprint have explained, the Commission can do this by comparing incumbent LEC prices for DS1 and DS3 special access services with UNE prices.¹⁶⁹ In addition, the Commission can compare incumbent LEC wholesale prices for Ethernet and other packet-mode special access services with the

¹⁶⁸ See, e.g., Letter from Eric J. Branfman, Counsel for Telecom Transport Management, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 11-65, at 1 (filed Aug. 22, 2011) ([T]he Verizon ILECs are affiliated with Verizon Wireless, which is currently the largest wireless carrier Therefore, in its ILEC region, Verizon has a large captive customer for wireless backhaul in the form of its wireless affiliate. Because of economies of scale in providing Ethernet wireless backhaul to multiple wireless carriers on a single cell site, this gives Verizon an advantage over other providers in bidding to provide backhaul to other wireless carriers in the Verizon ILEC region.”).

¹⁶⁹ See, e.g., *Sprint January 19, 2010 Comments* at 27; Comments of tw telecom, WC Docket No. 05-25 *et al.*, at 22 (filed Jan. 19, 2010).

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wholesale prices charged by other incumbent LECs and by competitors, and with the retail prices charged by incumbent LECs and competitors for these services. Discounted rates charged for Ethernet and packet-mode services in situations where multiple competitors offer facilities-based services may also offer a helpful benchmark for reasonable Ethernet and packet-mode special access prices. The Commission should be particularly focused on identifying circumstances in which incumbent LECs have sought to place competitors in a price squeeze by charging wholesale prices for Ethernet and other packet-mode special access services above the level of retail prices for those services or services that utilize those special access services as inputs.¹⁷⁰

These price benchmarks will enable the Commission to determine the extent to which incumbent LECs are exploiting their market power to charge unreasonable prices for DS1 and DS3 services in areas subject to Phase II pricing flexibility and for Ethernet and other packet-mode services throughout their territories. They will also enable the Commission to assess the extent to which price caps effectively constrain incumbent LEC rates for DS1 and DS3 services, something the Commission has committed to do ever since the expiration of the CALLS Plan in 2005.¹⁷¹

Finally, the Commission should also assess the extent to which incumbent LECs have begun to impose unreasonable terms and conditions on wholesale purchasers of Ethernet and

¹⁷⁰ See, e.g., Letter from Jonathan Lechter, Counsel for tw telecom, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 09-51 *et al.*, at 8 & Appendix (filed Dec. 22, 2009).

¹⁷¹ See *Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Low-Volume Long-Distance Users; Federal-State Joint Board On Universal Service*, Sixth Report and Order in CC Docket Nos. 96-262 and 94-1, Report and Order in CC Docket No. 99-249, Eleventh Report and Order in CC Docket No. 96-45, 15 FCC Rcd 12962, ¶ 166 (2000) (“*CALLS Order*”) (“[A]fter the five-year term we can re-examine the issue to determine whether competition has emerged to constrain rates effectively.”); *id.* ¶ (“[T]he rates will remain at the target rates until July 1, 2005, at which time the Commission will reexamine them.”); see also *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, Order and Notice of Proposed Rulemaking, 20 FCC Rcd. 1994, ¶¶ 2, 24-68 (2005) (“*2005 Special Access NPRM*”).

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other packet-mode special access services. For example, the Commission should be alert to unreasonable restrictions on the services that a wholesale customer may provide via Ethernet and packet-mode special access services purchased from incumbent LECs. Such conduct could be extremely harmful to competition and consumer welfare across the economy.

5. *Applying Panel Regressions to Relevant Special Access Markets*

In theory, the Commission could use panel regression analysis *in lieu* of applying the market power framework to identify the relevant special access markets in which incumbent LECs have and are currently exercising market power. For example, the Commission might be able to use panel regressions to identify the circumstances in which competition disciplines incumbent LEC prices (e.g., in circumstances where three or more facilities-based competitors serve a particular location, incumbent LEC DS3 prices on average decline by 20 percent) and the circumstances in which they do not. If this is the case, the Commission could establish a means of aggregating the relevant product and geographic markets in which competition does not discipline incumbent LEC prices. It could then tailor new pricing regulation to those circumstances. This analysis might obviate the need for the Commission to separately measure market shares, demand elasticity, and supply elasticity.

However, in order to conduct reliable panel regressions to measure actual competition, the Commission would need to account for several key factors. *First*, as explained, the Commission should not consider firms that provide services via facilities leased from the incumbent LEC to be market participants for purposes of assessing incumbent LEC market power. Again, there are numerous reasons for this, among them that the UNEs upon which many competitive carriers rely are being eliminated and are subject to important limitations. Nevertheless, competitors that rely on these facilities likely have some disciplining effect on

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incumbent LEC special access prices. The Commission would need to “back out” the effect of these competitors when it conducts the panel regressions. Otherwise, the market for special access services is likely to appear more competitive than is in fact the case.

Second, as explained in Section II.B *supra*, loyalty and tying provisions in the incumbent LEC exclusionary purchase arrangements prevent special access customers from switching to non-incumbent LEC wholesale providers even in the limited circumstances in which those competitors offer service via their own facilities. These arrangements also diminish the extent to which competitors are willing to expand their network facilities into new geographic areas. Taken together, the effects on demand and supply appear to reduce an incumbent LEC’s firm elasticity of demand below the level that would otherwise exist. Thus, it could be that incumbent LECs would be forced by competition to lower special access prices in certain situations in the absence of the existing exclusionary purchase arrangements. It is not obvious how the Commission would be able to account for this fact in conducting panel regressions.

Third, panel regressions would be most informative if the incumbent LECs generally change their special access prices materially depending on the circumstances, but this does not appear to be their practice. At least in the case of DS1 and DS3 services, incumbent LECs do not appear to modify their prices based on the number of competitors that offer service in the relevant area. Rather, incumbent LECs generally charge the same DS1 and DS3 prices across a large region (e.g., a price “band” or “zone” within a legacy operating company region). Where the incumbent LECs do offer lower prices for DS1 and DS3 services as part of an individually negotiated contract tariff or commercial agreement, it appears that the reductions are less a response to the number of competitors than a *quid pro quo* for some non-price benefit that the incumbent receives as part of the agreement (e.g., the customer’s agreement not to purchase

UNEs or the customer’s agreement to purchase non-special access services from the incumbent). Moreover, it could well be that the incumbent LECs price their Ethernet and other packet-mode special access services in a similar, largely uniform manner (this appears to be especially likely in the case of wholesale Ethernet special access).

Uniform prices across an incumbent LEC’s territory would make it difficult to rely on panel regressions to support reliable conclusions about the extent to which incumbent LECs are subject to competition in the special access market. It is possible, indeed likely, that the competitors function as “fringe” competitors in almost all relevant markets and therefore have no ability to cause incumbent LECs to lower prices to a significant number of customers in any market. In order to make that assessment, the Commission would need to conduct an analysis similar to the one it performs under the established market power framework.

B. There is No Reliable Basis for the Commission to Predict That Significant Competitive Entry Will Occur in Any Relevant Special Access Market.

In addition to assessing the extent to which incumbent LECs are subject to actual competition in the provision of special access services, the Commission states in the *Further NPRM* that it plans to assess the level of potential competition in the provision of special access services.¹⁷² It apparently plans to do this by relying on the market power framework, supplemented by panel regressions.

As explained below, however, neither recent history nor current market conditions offers any basis for predicting the circumstances in which entry might occur in the future in special access product markets that are today dominated by incumbent LECs. To be sure, competitors will continue to try to build local transmission facilities to serve locations where customers

¹⁷² See *Further NPRM* ¶ 67.

demand very high capacity circuits (e.g., OCn and high-capacity Ethernet) that yield sufficient revenues to justify the deployment of new transmission facilities. But there is no basis for concluding that DSn or mid- and low-capacity Ethernet services, which generally do not yield sufficient revenues to justify the deployment of new transmission facilities, will somehow become subject to increased competition in the foreseeable future.

Accordingly, instead of expending scarce administrative resources on trying to predict circumstances in which competitive entry will occur, the Commission should focus on removing the significant obstacles to entry created by incumbent LEC exclusionary purchase arrangements as described by Drs. Besen and Mitchell and on establishing appropriate rate regulation in relevant product markets in which incumbent LECs have market power as described above. After the protections against incumbent LEC exclusionary purchase arrangements have been in place for a period of time, the Commission can reassess the level of competition to determine the extent to which it is necessary to retain regulation in relevant special access product markets.

1. Applying the Market Power Framework to Measure Potential Competition in Relevant Special Access Markets

Under the market power framework, the Commission considers future entry to be relevant only if it is timely, likely and of sufficient scale to counteract the exercise of market power by an incumbent LEC.¹⁷³ It is simply not plausible that any firm or group of prospective entrants could meet this standard.

¹⁷³ See *Phoenix Order* ¶ 41; see also *Merger Guidelines* § 9. Under this standard, it is necessary to examine barriers to entry such as high capital expenditures, large sunk costs, long lead times, scale economies, and cost disadvantages. See, e.g., U.S. Department of Justice & Federal Trade Commission, *Commentary on the Horizontal Merger Guidelines*, at 38 (Mar. 2006), available at <http://www.usdoj.gov/atr/public/guidelines/215247.pdf>; ABA Section of Antitrust Law Developments, at 351 (6th ed. 2007).

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To begin with, the barriers to deploying local transmission facilities have not materially changed over time. As explained in Section II.A *supra*, and as the FCC itself has held, these barriers remain extremely high.¹⁷⁴ Moreover, as also explained in Section II.B *supra*, incumbent LEC special access exclusionary purchase arrangements effectively lock up a large percentage of the market, thereby significantly increasing the barriers to future entry. These factors alone undermine any confidence in predictions of future entry in markets in which incumbent LECs currently have market power.

It is also highly relevant that the Commission has a long history of incorrectly predicting that competition would develop in the provision of the dedicated transmission services that incumbent LECs offer as special access. In 1997, in anticipation that the regime created by the 1996 Act and implemented in the *Local Competition Order* would generate robust competition in local markets “over the next few years,” the Commission announced its intention to rely on competition rather than regulation as the predominant means of ensuring that incumbents LECs price their special access services in an economically efficient manner.¹⁷⁵ Unfortunately, the Commission’s predictions about competitive entry have proven overly optimistic, leaving incumbent LECs largely unrestrained in their ability to exercise market power.

For example, the FCC premised the structure of the CALLS plan on the expectation that competition would begin to discipline incumbent LEC special access rates during the term of the

¹⁷⁴ See *Phoenix Order* ¶ 84 (finding that competitive carriers continue to “face extensive economic barriers to the construct of last-mile facilities”); *id.* ¶ 90 (same).

¹⁷⁵ *In the Matter of Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing; End User Common Line Charges*, First Report and Order, 12 FCC Rcd. 15982, ¶¶ 262-284 (1997), *aff’d*, *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523 (8th Cir. 1998).

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plan.¹⁷⁶ In addition, the Commission predicted that competition would be sufficiently robust by 2005 to eliminate the need for further mandated rate reductions.¹⁷⁷ Specifically, the Commission predicted that, in order to compete with “competitors utilizing a range of technologies, including cable, cellular, MMDS and LMDS,” incumbent LECs would effectively be required to share their productivity gains with consumers by reducing their rates.¹⁷⁸ Of course, the extent of competitive entry between 2000 and 2005 was far smaller than the Commission expected. Thus, when it initiated the special access rulemaking proceeding in 2005, the Commission recognized the need for an alternative mechanism to restrain incumbent LEC rates.¹⁷⁹

Similarly, in granting Qwest relief from its Section 251(c)(3) unbundling obligations in the Omaha MSA, the Commission predicted that sufficient competition would develop to ensure that Qwest would offer wholesale DS0, DS1, and DS3 loops on reasonable terms and conditions.¹⁸⁰ However, subsequent events in the post-forbearance Omaha market made clear

¹⁷⁶ See *CALLS Order* ¶ 166 (“[W]e believe that increased competition will serve to constrain access rates in the later years of the CALLS Proposal as X-factor reductions are phased out. We believe that market forces, instead of regulatory prescription, should be used to constrain prices whenever possible.”).

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ *2005 Special Access NPRM* ¶ 131 (“This record contains substantial evidence suggesting that productivity has increased and continues to increase in the provision of special access services. Under the CALLS plan, however, there is currently no productivity factor in place to require price cap LECs to share any of their productivity gains with end users. Accordingly, we anticipate adopting an order prior to July 1, 2005 that will establish an interim plan to ensure special access price cap rates remain just and reasonable while the Commission considers the record in this proceeding.”). Of course, the Commission never adopted such an interim plan.

¹⁸⁰ *In the Matter of Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metropolitan Statistical Area*, Memorandum Opinion and Order, 20 FCC Rcd. 19415, ¶¶ 79-83 (2005) (“*Omaha Order*”).

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that this prediction was incorrect. Qwest failed to offer reasonable wholesale pricing, causing one major competitor to exit the Omaha market and causing at least one major competitor to abandon its decision to enter that market.¹⁸¹ This series of events led the Commission to acknowledge that its predictions in the *Omaha Forbearance Order* “[had] not been borne out by subsequent developments.”¹⁸²

Furthermore, predictions regarding the *manner* of competitive entry in the market for special access services have been proven to be unreliable as well. In the *Pricing Flexibility Order*, the FCC determined that incumbent LEC special access offerings would be subject to effective competition in each market in which competitive “triggers” were satisfied.¹⁸³ However, when the Commission recently suspended operation of these triggers, it found that its central predictions regarding both the nature and the scope of competitive entry were not supported by subsequent evidence. The Commission determined that evidence had called into question its predictions that competitors that established fiber-based collocations would construct last-mile facilities and that competitive entry occurs at the MSA level.¹⁸⁴

¹⁸¹ *Phoenix Order* ¶ 34.

¹⁸² *Id.*

¹⁸³ *Access Charge Reform; Price Cap Performance for Local Exchange Carriers; Interexchange Carrier Purchases of Switched Access Services Offered by Competitive Local Exchange Carriers; Petition of U.S. West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA*, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd. 14221 (1999) (“*Pricing Flexibility Order*”), *aff’d* *WorldCom v. FCC*, 238 F.3d 449 (D.C. Cir. 2001).

¹⁸⁴ *See Pricing Flexibility Suspension Order* ¶ 68 (“Evidence submitted to the Commission since 1999 calls into question the Commission’s prediction that collocators would eventually build their own channel terminations to end users.”); *id.* at ¶ 35 (“The record in this proceeding suggests that, contrary to the Commission’s prediction in 1999, MSAs have generally failed to reflect the scope of competitive entry. Rather, in many instances, the scope of competitive entry has apparently been far smaller than predicted.”)

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There is no reason to think that the Commission would be any more accurate in predicting future entry now than has been the case in the past. Accordingly, there is no basis for the Commission to have any confidence that it could reliably identify firms or groups of firms whose future entry would be timely, likely, and of sufficient scale to counteract incumbent LEC exercise of market power in a relevant special access market.

2. *Applying Panel Regression Analysis to Measure Potential Competition in Relevant Special Access Markets*

In the *Further NPRM*, the Commission suggests that it could use panel regression analysis to “predict where and how potential competition will occur.”¹⁸⁵ But it would be extremely difficult for the Commission to develop a set of panel regressions that reliably predict future entry into product markets in which the incumbent LECs currently possess market power. To begin with, the discussion of such an analysis in the *Further NPRM* makes no mention of the significant effect of incumbent LEC exclusionary purchase arrangements discussed in Section II.B *supra*. Again, incumbent LEC exclusionary purchase arrangements dramatically limit the opportunities for competitive wholesale providers to enter the market for special access services. Thus, the Commission must make sure to account for the effect of these arrangements when seeking to predict where entry might occur in the future.

Unfortunately, accounting for the effect of incumbent LEC exclusionary purchase arrangements poses numerous challenges. To begin with, as the incumbent LECs have themselves asserted, a large portion of DS1 and DS3 special access services purchased from incumbent LECs are subject to the incumbent LEC purchase arrangements.¹⁸⁶ Given that these

¹⁸⁵ See *Further NPRM* ¶ 68.

¹⁸⁶ See *supra* note 50 and accompanying text.

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arrangements cover a large percentage of the special access services sold throughout the country, it may be very difficult for the Commission to compare the level of entry in areas subject to loyalty and tying arrangements with the level of entry in areas not subject to those arrangements.

As explained in Section II.B *supra*, the details of incumbent LEC exclusionary purchase arrangements vary significantly. In fact, many incumbent LECs offer several different types of generally available special access discount plans in each territory. In addition, in areas subject to Phase I and Phase II pricing flexibility, incumbent LECs enter into individually negotiated contract tariffs in which special access customers receive additional discounts on top of those available in the generally available plans in return for making additional commitments. As a result, special access customers in each incumbent LEC region are often subject to a wide range of different purchase arrangements. This makes the task of accounting for the effect of the loyalty and tying components of these arrangements complex.

Moreover, notwithstanding the complexity and diversity of the incumbent LEC exclusionary purchase arrangements, there is no single purchase arrangement that stands out as obviously less exclusionary than the others. Thus, even if the Commission could compare levels of entry in circumstances where different incumbent LEC purchase arrangements apply, it is not clear that such a comparison would yield the conclusion that entry is more likely under one type of purchase arrangement than another.

The Commission would also face other challenges in seeking to rely on panel regressions to predict future entry. The barriers to deploying local transmission facilities vary significantly from building-to-building, from point-to-point route to point-to-point route, and from municipality to municipality. These variations are due, among other things, to differences in the building access policies of multi-tenant building owners, differences in the rates, terms and

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conditions offered by utilities for obtaining access to utility-owned poles, ducts and conduits, different rates, terms and conditions offered by municipalities for obtaining access to public rights of way, different labor costs, and different levels of congestion in different areas. It would be extremely complex and difficult to account for these differences when seeking to predict future entry into any particular special access market.

In light of these factors, it appears that panel regressions are unlikely to offer a reliable means of predicting that competitive entry will occur into special access markets in which incumbent LECs current possess market power. Even attempting to account for all of the factors that affect entry would require a significant allocation of Commission resources. Accordingly, the Commission should instead focus its panel regression analysis on assessing circumstances in which incumbent LECs face actual competition in relevant markets. As to potential competition, the Commission should forego making any predictions about future entry and instead focus on removing the entry barriers caused by incumbent LEC exclusionary purchase arrangements. The Commission can then assess the level of competition at a future date, after the protections against these arrangements have been in place for long enough to have an effect on the marketplace.

IV. CONCLUSION

For the foregoing reasons, the Commission should take the actions recommended herein by the Joint Commenters.

Respectfully submitted,

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APPENDIX A

Anticompetitive Provisions of ILEC Special Access Arrangements

Stanley M. Besen and Bridger M. Mitchell

February 11, 2013

Table of Contents

I.	Qualifications.....	2
II.	tw telecom Continues To Be Dependent on ILECs for Special Access	3
III.	The Effect of ILEC Loyalty Contracts on Special Access Competition	6
IV.	How Loyalty Contracts Work.....	9
V.	Examples of Loyalty Provisions in ILEC Special Access Contracts	14
VI.	How ILEC Loyalty Contracts Lead to Higher Special Access Rates.....	20
VII.	Many ILEC Loyalty Provisions Do Not Have Efficiency Justifications	23
VIII.	Remedies to Encourage Competitive Supply of Special Access.....	28

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I. Qualifications

1. My name is Stanley M. Besen. I have published widely on telecommunications economics and policy, intellectual property, and the economics of standards and have consulted to many companies in the telecommunications and information industries. I have served as a Brookings Economic Policy Fellow, Office of Telecommunications Policy, Executive Office of the President (1971-72); Co-Director, Network Inquiry Special Staff, Federal Communications Commission (1978-80); Coeditor, RAND Journal of Economics (1985-88); Senior Economist, RAND Corporation (1980-92); a member of the Editorial Board of Information Economics and Policy (1992-2004); and Vice President, Charles River Associates (1992-2008). I currently serve as a member of the Editorial Board of Economics of Innovation and New Technology. I have taught at Rice University (1965-1980), where I was the Allyn R. and Gladys M. Cline Professor of Economics and Finance, Columbia University (1988-1989) where I was the Visiting Henley Professor of Law and Business, and the Georgetown University Law Center (1990-1991) where I was Visiting Professor of Law and Economics. I hold a Ph.D. in Economics from Yale University (1964). My CV is attached hereto as Attachment 1.

2. My name is Bridger M. Mitchell. I am an expert in competition and pricing in the telecommunications industry and have provided expert testimony, litigation support, and economic consulting services to numerous business and government clients. My research on major regulatory issues encompasses the theory and practice of telecommunications pricing, competition, and equal access in local telephone markets, interconnection in telecommunications networks, international telephone rates, and broadcasting and cable television. I have developed pioneering models of the cost structure of a cable television firm and the incremental costs of local telephone networks. I taught economics at Stanford University, as Assistant Professor of Economics from 1966 to 1971

and as Acting Associate Professor of Economics in 1976, and at UCLA from 1973–1975 as Lecturer in Economics. From 1972–1994, I served as Senior Economist, RAND Corporation. From 1994 to 2008 I was a Vice President of Charles River Associates and thereafter have been a Senior Consultant to the firm. I hold a Ph.D. in Economics from the Massachusetts Institute of Technology. My CV is attached hereto as Attachment 2.

II. tw telecom Continues To Be Dependent on ILECs for Special Access

3. We have been retained by tw telecom to address the effects on competition of various provisions in the arrangements under which tw telecom purchases special access services from Incumbent Local Exchange Carriers (“ILECs”). tw telecom purchases special access services from ILECs through both tariffed discount plans and non-tariffed commercial agreements. In this Declaration we generally use the term “contracts” to apply to both types of arrangements. Although our focus is primarily on tw telecom, our analysis is applicable to other companies that purchase special access services under similar arrangements.

4. Although tw telecom has constructed facilities to approximately 17,000 buildings in the United States, and builds facilities to approximately 1,500 additional buildings each year, it must still purchase special access facilities from another carrier to reach customers at [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] of the approximately [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] buildings that it currently serves.¹ Moreover, except in very rare instances, tw telecom would have to purchase these facilities from another carrier in order to serve customers at any buildings that it

¹ Letter from Thomas Jones and Matthew Jones, Counsel to tw telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 11-12 (filed Aug. 21, 2012) (“*tw telecom August 21 Letter*”).

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currently does not serve.²

5. Not only must tw telecom purchase special access services from another carrier at the vast majority of the buildings that it serves or is likely to serve in the future, the ILECs are often the only carriers that have facilities that reach most of these buildings. As tw telecom has noted, "...ILECs control the only last mile facilities serving the vast majority of business customer locations for which tw telecom must purchase services from a wholesale provider."³ For example, tw telecom analyzed the extent of competitive deployment in the Phoenix Metropolitan Statistical Area ("MSA") and found that, based on the information available to tw telecom, the ILEC controls the only last mile connection to more than [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of commercial buildings in that MSA.⁴ This should come as no surprise to the Commission, which observed in the *Data Request Order* that the available evidence suggests that "competitive providers may serve a relatively small proportion of all locations that have special access."⁵

²According to tw telecom, it has been able to deploy its own loop facilities to an average of only [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of customer locations with demand for two or more DS1s in Atlanta, Los Angeles, Phoenix, Seattle, and Washington DC as of March 2012. See tw telecom Build/Buy Analysis at 1 (attached as Appendix C to Comments of BT Americas, Cbeyond, EarthLink, Integra, Level 3 and tw telecom, WC Docket No. 05-25 *et al.* (filed Feb. 11, 2013) (hereinafter referred to as "*Comments*")). Moreover, tw telecom has estimated that it would be viable in the future to deploy its own loop facilities to only about [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of the buildings that it currently does not serve in these cities. See *id.* at 4.

³ See Letter from Thomas Jones and Matthew Jones, Counsel to tw telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 *et al.*, at 4 (filed June 5, 2012).

⁴ See *Comments* at 18-19 & Appendix B.

⁵ *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

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6. tw telecom’s continuing dependence on the ILECs is shown by the fact that tw telecom currently makes a very large share of its special access purchases from them. For example, in June 2012, more than [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of tw telecom’s expenditures on all channel termination services were for purchases from ILECs.⁶ For DS1 services, which accounted for more than [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of the amount that tw telecom spent on purchases of all channel termination services, more than [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of tw telecom’s purchases were from ILECs.⁷ Even for channel termination services that were provided using Ethernet technology, which accounted for less than [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of tw telecom’s expenditures on channel termination services, more than [BEGIN HIGHLY CONFIDENTIAL] [END HIGHLY CONFIDENTIAL] percent of tw telecom’s purchases were from ILECs.⁸ Thus, although ILECs face competition from other suppliers of channel termination services at some locations, the vast majority of tw telecom’s purchases of channel termination services continue to be from the ILECs.

Rcd. 16318, ¶ 25 (2012) (“*Data Request Order*”) (citation omitted). The Commission also noted that “competition in the provision of special access appears to occur at a very granular level – perhaps as low as building/tower or a floor of a building.” *Id.* ¶¶ 22, 38. Thus, even if there are competitive alternatives to the ILECs at some locations in a particular area, that does not necessarily mean that such alternatives exist at others locations in the same area.

⁶ *See Comments* n.34.

⁷ *See id.*

⁸ *See id.*

III. The Effect of ILEC Loyalty Contracts on Special Access Competition

7. Although there are other potential suppliers of special access services, their ability to compete to provide services to tw telecom is severely limited by the ILECs' use of what we refer to in this Declaration as ILEC loyalty contracts, which can be implemented either through tariff provisions or the terms of commercial agreements. Although these contracts do not *explicitly* require tw telecom to make a very large percentage of its special access purchases from the ILECs, their *effect* is to condition discounts, or the avoidance of penalties,⁹ on this percentage. Thus, they often amount to the same thing.¹⁰

8. As explained further below, the provisions in ILEC special access loyalty contracts take a number of forms. Some provisions provide rate discounts for a single circuit only if a customer commits to a *minimum contract term* for that circuit. Others condition circuit portability – the ability to terminate one special access circuit and replace it with another without incurring a termination penalty – on a customer's commitment to maintain a significant share of its historic purchase levels from the ILEC. Still others penalize a customer if it does not commit to increase its minimum volume commitment to the ILEC to include a large proportion of the *growth* in the customer's purchases from the ILEC. Many special access contracts contain a combination of these types of provisions.¹¹

⁹ As discussed below, these penalties can involve an increase in the unit price, a fixed dollar payment, or a denial of benefits.

¹⁰ Some writers, *e.g.*, Jonathan M. Jacobson, "A Note on Loyalty Discounts," *The Antitrust Source*, June 2010, treat loyalty and explicit market share discounts as equivalent, but we intend the term loyalty discounts to cover a wider range of behaviors.

¹¹ In addition, some ILEC contract provisions condition discounts, benefits, or the avoidance of penalties on the customer's commitment to purchase a minimum quantity of services other than special access channel termination or of services other than special access services (*i.e.*, either

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9. Moreover, there are practical limits to the ability of a special access customer to shift purchases to an ILEC rival even at the end of a contract term. For example, a customer that wishes to change suppliers would have to pay the ILEC's extremely high month-to-month rates until a competitive provider is able to supply the service and the customer can shift its customers to the new provider's facilities.¹²

10. Although the precise form of these loyalty provisions differ, all have the same intent and effect – to encourage customers of special access to purchase a very large share of their requirements from the ILEC – or, equivalently, to discourage these customers from purchasing a significant share of their special access requirements from ILEC rivals.

11. This basic conclusion has been reached by others who have analyzed competition in the market for special access services. For example, a study prepared for the National Regulatory Research Institute concluded that "...a combination of terms in discount plans may be allowing ILECs unreasonably to cement their market power by limiting the ability of buyers to shift special access circuits to competitors *who may have better products, lower prices, or both.*"¹³ Similarly, the United States Government Accountability Office concluded that "These types of contracts may inhibit choosing competitive alternatives because the customer does not receive the applicable discount, credit, or incentive if the revenue targets are not met and additional penalties may also apply. Unless the competitor can meet the customer's entire demand, the

channel terminations or mileage). Although we explain below that such provisions can be problematic, these are characterized more accurately as tying arrangements rather than loyalty provisions.

¹² See *Comments* at 28-30.

¹³ P. Blum, National Regulatory Research Institute, *Competitive Issues in Special Access Markets*, Revised Edition, at 96 (first issued Jan. 21, 2009) (emphasis added).

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customer has an incentive to stay with the incumbent and purchase additional circuits from the incumbent, rather than switch to a competitor or purchase a portion of their demand from a competitor – *even if the competitor is less expensive.*”¹⁴

12. Moreover, as Joseph Farrell has pointed out, the fact that carriers such as tw telecom “freely” choose these restrictive long-term arrangements is simply an artifact of the very unattractive terms at which the ILECs offer month-to-month service. As he observed, “It is a tempting fallacy to think that optional discount plans cannot be harmful because consumers select them voluntarily. The claim that voluntary discounts cannot harm consumers assumes that basic month-to-month rates are not affected, but in fact, once an ILEC has contracted with some of its customers for a percentage discount off the month-to-month tariff, it has an incentive to raise the latter above the level that it would otherwise have chosen.”¹⁵

13. We also note here that, although the types of contracts that are offered by ILECs are similar to those that are offered in other, more competitive markets, this does not mean that their effects are benign. ILECs have large market shares and are much larger than their competitors. Moreover, potential entrants into the market for special access services face substantial barriers to entry. This almost certainly means that ILECs are the types of dominant firms for which the use of loyalty contracts are likely to be anticompetitive. As Patrick Greenlee and David Reitman have observed,

¹⁴ United States Government Accountability Office, FCC Needs to Improve Its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services, GAO-07-80, at 30 (Nov. 2006) (emphasis added).

¹⁵ Reply Declaration of Joseph Farrell on Behalf of CompTel, ¶ 21 (dated July 29, 2005) (attached to Reply Comments of CompTel *et al.*, WC Docket No. 05-25 *et al.* (filed July 29, 2005)) (“*Farrell Reply Declaration*”). The fact that a buyer “freely” accepts contract terms that restricts his ability to purchase special access terms from ILEC rivals is akin to the situation in which a robbery victim “freely” chooses to turn his money over to a thief after being offered the choice of “your money or your life”.

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“...purchase requirements, coupled with a loyalty discount for buyers who comply with the purchase terms, can function as exclusionary behavior to the detriment of rivals firms and competition. This is of particular concern *when the firm offering loyalty discounts is much larger than its rivals.*”¹⁶ Similarly, as Fiona Scott-Morton has noted, “the settings where [such contracts] are most likely to harm consumers and competition involve *dominant firms possessing market power and a high market share.*”¹⁷ Finally, even Hans Zenger, who believes that loyalty discounts are generally *not* anticompetitive, notes, “If a *dominant* firm is in a position to foreclose such a substantial part of the market that the output of the smaller competitors is suppressed below the minimum efficient scale of production, retroactive rebates can cause anticompetitive harm by jeopardizing the viability of the *dominant* firm’s competitors.”¹⁸

IV. How Loyalty Contracts Work

14. As many commentators have observed, contracts that require a customer to make a very large fraction of its purchases from one supplier in order to obtain a significant discount or avoid a significant penalty, effectively serve as a “tax” on purchases from competitors of that supplier. This occurs because, if a customer fails to meet its purchase commitment, it must pay a higher price for the units that it does purchase and the customer will take this increased price into account in

¹⁶ P. Greenlee & D. Reitman, *Competing with Loyalty Discounts*, U.S. Dep’t of Justice EAG Discussion Paper 04-02, at 2 (revised Jan. 7, 2006), available at <http://www.wcas.northwestern.edu/csio/Conferences/Papers2006/GreenleeandReitmanpaper.pdf>.

¹⁷ F. Scott-Morton, *Contracts that Reference Rivals*, Presentation to Georgetown University Law Center, at 5 (Apr. 5, 2012) (emphasis added), available at www.justice.gov/atr/public/speeches/281965.pdf.

¹⁸ H. Zenger, *Loyalty Rebates and the Competitive Process*, JOURNAL OF COMPETITION LAW & ECON., at 33 (Mar. 2012) (citation omitted) (emphasis added), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2019185.

deciding whether to purchase from the competitor. This increase can take the form of a higher per-unit price on all units that the buyer continues to purchase, a fixed dollar penalty, the elimination of a benefit, or some combination of those.¹⁹

15. Even a small increase in price can represent a significant per-unit “tax” on purchases from the rival if the customer then continues to make a large share of its purchases from the dominant firm. Thus, although such contracts may contain no explicit prohibition on purchases from rivals, as is the case here, they can still prevent many such purchases. Under many of its contracts with ILECs, tw telecom must commit to maintaining a very high percentage – **[BEGIN HIGHLY CONFIDENTIAL]** [REDACTED] **[END HIGHLY CONFIDENTIAL]** – of its historic purchase levels from the ILEC in order to receive more favorable terms and conditions.²⁰

Even under contracts that do not require such a commitment, tw telecom commits to a high

¹⁹ Greenlee and Reitman refer to the first type of contract as involving “dollar-one”, “all-unit”, or “rollback” discounts” and note that they “effectively increase the gain to a customer near the margin for meeting the target, relative to incremental discounts.” P. Greenlee and D. Reitman, *supra* note 16, at 5. As we note below, the effects of the penalties are the same whether they involve fixed dollar payments or rollbacks of previous discounts.

²⁰ *See, e.g.*, **[BEGIN HIGHLY CONFIDENTIAL]** [REDACTED]

[END HIGHLY CONFIDENTIAL] tw telecom is not the only carrier that makes a very large percentage of its special access purchases from ILECs. The National Regulatory Research Institute reported that over 90% of Verizon’s special access revenues from other carriers in 2009 were received under plans that contained discounts from the rack rates. *See* P. Blum, *supra* note 13, at 20.

percentage because the more favorable rates, terms, and conditions are available only for the purchases for which the commitment is made.²¹ In either case, tw telecom would face a large “tax” if it were to shift even a relatively small amount of its purchases to an ILEC rival.

16. Not only do loyalty contracts induce customers to purchase a very large percentage of their requirements from the ILEC, at times they have induced a customer to purchase *more than* the number of special access circuits that it needs. For example, [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] has reported that it has occasionally purchased DS1 and DS3 “circuits to nowhere” in order to meet volume or revenue commitments and thereby avoid paying shortfall penalties that can be as much as ten times the monthly rate that [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] would otherwise pay for a circuit.²² In addition to impeding entry of competitors, the purchase of unused circuits is clearly inefficient.

²¹ See, e.g., [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL].

²² See [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] Note that this implies that the price of the circuits that [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] purchases but does not use is *negative*. That is, the total cost of the larger purchase is actually *lower* than the total cost of the smaller purchase.

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17. If a customer shifts even a small percentage of business to an ILEC rival, ILEC loyalty contracts can impose a large “tax” or “penalty”. The result is that rival offerings are uncompetitive, ILEC market power is increased, and ILECs are able to raise prices.

18. The “tax” or “penalty” under a loyalty contract can take a number of different forms. It is easiest to illustrate the effect, however, by focusing on a contract that calls for an increase in the price of the units that a customer continues to purchase.²³ Under a so called “all-units”, “first-dollar”, or “rollback” discount plan, a buyer forfeits the per-unit discount on *all* of the units that it continues to purchase from the firm offering the loyalty discount (that is, the discount is “rolled back”) if its purchases from that firm fall below its purchase commitment.²⁴ Alternatively, or in addition, a buyer may be obligated to make a fixed dollar payment if it fails to meet the purchase requirement.

19. To see how the “tax” works, consider an “all-units” contract in which a customer that purchases 100 units of special access from all suppliers pays a price of \$10 per unit if it purchases 90 units from the dominant firm but \$11 per unit if it makes less than 90 percent of its purchases from that firm.²⁵ If the customer is purchasing 90 units from the dominant firm and shifts, say, 5 percent of its purchases to a competitor, say by renewing only 85 circuits at the conclusion of a contract, the total “tax” is the increase in price $\$11 - \$10 = \$1$ (the “rollback” of the discount) on the units that it continues to purchase from the dominant firm times the number of units, 85, that it

²³ We emphasize that, although tw telecom’s special access contracts with ILECs are not explicitly of this form, the effect of those contracts is the same as if they did have that form.

²⁴ For an example of this type of plan, *see* Declaration of Professor Einer Elhauge on Behalf of Eisai Inc. ¶ 3. *Eisai Inc. v. Sanofi-Adventis LLC*, No. 3:08 Civ. 4168 (D.N.J. Nov. 17, 2008).

²⁵ This example is illustrative of the effects of loyalty contacts on the incentives to purchase special access services from ILEC rivals. As we discuss below, the penalties in ILEC loyalty contracts take a wide variety of forms and are not limited to the type discussed in this example.

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continues to purchase. This amounts to a “tax” of \$85, or \$17 per unit on purchases from the competitor.²⁶

20. Suppose, instead, that the penalty takes the form of a fixed dollar payment. In our example, the effect would be identical if, instead of forfeiting a per-unit discount of \$1 per unit, the buyer were forced to pay a penalty of \$85 if its purchases from the dominant firm fell to 85% of its total purchases. What is important is the magnitude of the penalty, not the manner in which it is imposed. For example, Farrell considers the effect of a reduction in the *average* discount, which can be effected entirely through a penalty that takes the form of an increase in the unit price, or entirely through a fixed dollar penalty, or through some combination of the two types of penalties.²⁷

21. The same deterrent to shifting demand to a rival is achieved if the purchase commitment is a minimum percentage of the customer’s total purchases from the ILEC in the recent past, rather than a minimum share of the customer’s current purchases. For example, if a customer is required to take 90% of its purchases from the ILEC in the previous year in order to obtain a discount or avoid a penalty, a shift of more than 10% of the previous year’s purchases from the ILEC to a rival would result in a “tax” that would increase the effective price of purchasing service from the rival.

22. Finally, the penalty provision in a loyalty contract can involve *conditioning the availability of a benefit* on the customer committing to making a large share of its purchases from the ILEC. The most prominent examples are ILEC loyalty contracts that condition circuit portability – the ability to terminate one special access circuit and replace it with another without incurring a

²⁶ Note that, in this example, the price of the last 5 units is actually *negative* since the customer would spend \$935 if it purchased 85 units but only \$900 if it purchased 90 units. Thus, the effective unit price of the last five units purchased is *minus* \$7 ($=-\$35/5$).

²⁷ See *Farrell Reply Declaration* ¶ 11.

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termination penalty – on a customer’s commitment to maintain a significant share of its historic purchase levels from the ILEC. These contracts give special access customers the incentive to make high minimum volume commitments and thereby make them subject to large shortfall penalties if their purchases from the ILEC decline. Once a customer has made such a commitment, the provisions of the contracts impose a “tax” or “penalty” on purchases from a competitor as described above.

V. Examples of Loyalty Provisions in ILEC Special Access Contracts

23. The loyalty provisions in various ILEC special access contracts can be understood as providing rewards to a customer for purchasing a large proportion of its historic or current special access purchase volumes from an ILEC or, equivalently, imposing penalties on the customer for shifting demand to a rival. ILECs achieve “loyalty” in a number of ways.²⁸

24. Customers can purchase special access services at rates that are lower than the ILECs’ extremely high month-to-month rates only by making *term commitments*, that is, by committing to purchase individual circuits for a fixed number of years. The discounts associated with term commitments are substantial. For example, for DS1 channel terminations in price cap areas, AT&T provides a discount of approximately 60 percent off of the month-to-month rate in legacy Ameritech territory and approximately 50 percent off of the month-to-month rate in legacy Southwestern Bell territory if the customer agrees to a five-year term commitment.²⁹

²⁸ The examples provided here are not intended to be an exhaustive list of the loyalty provisions in ILEC special access contracts.

²⁹ See Ameritech Operating Companies Tariff F.C.C. No. 1 § 7.5.9(B)(1); Southwestern Bell Telephone Company Tariff FCC No. 73 § 7.3.10(F). We note, however, that the discounts are approximately 30 percent in legacy BellSouth territory and approximately 15 percent in legacy Pacific Bell territory. BellSouth Telecommunications Tariff FCC No. 1 § 7.5.9(A)(1); Pacific

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25. Typically, these ILEC contracts contain *penalty provisions for early termination* that apply if a customer terminates service prior to the expiration of a term commitment. Such provisions effectively inhibit customers like tw telecom from shifting special access purchases to alternative suppliers even in those cases in which these alternatives are available, or will be available, at locations that tw telecom serves or wishes to serve in the future. For example, in legacy Ameritech territory, if a customer terminates a circuit prior to the expiration of its commitment term, AT&T imposes a circuit termination penalty. Specifically, if the customer terminates the circuit within the first year of its commitment term, the circuit termination penalty is equal to the sum of all discounts that the customer received while the circuit was in service *plus* 40 percent of AT&T's 12-month monthly recurring rate for each remaining month in the first year of the term.³⁰ If the customer terminates the circuit after the first year of its commitment term, the termination penalty is equal to the difference between the amount the customer was charged under its subscribed rate and the amount that the customer would have been charged under the rate associated with the term that the circuit was actually in service.³¹

26. In addition, ILEC special access contracts often include significant non-recurring charges for each channel termination. For example, AT&T imposes a non-recurring installation charge of \$900 for DS1 channel terminations in legacy Pacific Bell and Southwestern Bell territories.³²

Bell Telephone Company Tariff F.C.C. No. 1 §§ 7.5.9(A)(1), 7.5.9(I)(1). We discuss the significance of this wide disparity in our discussion of benchmarking below.

³⁰ See Ameritech Operating Companies Tariff F.C.C. No. 2 § 7.4.10(C)(i)(a)(2).

³¹ See *id.* § 7.4.10(C)(i)(b).

³² See Pacific Bell Telephone Company Tariff F.C.C. No. 1 § 7.5.9(I)(5); Southwestern Bell Telephone Company Tariff F.C.C. No. 73 § 7.3.10(F)(1). Again, these charges vary significantly among legacy BOC territories. We note that AT&T's non-recurring installation charge is \$150 in legacy Ameritech territory, and \$650 for the first circuit installed and \$275 for

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27. Many ILEC contracts offer customers discounts or relief from these early termination penalties (i.e., by providing circuit portability) if a customer *commits to maintaining a large percentage of its historic special access purchases in service* with the ILEC. For example, under CenturyLink’s Regional Commitment Program (“RCP”) in legacy Qwest territory, a customer must commit to maintaining 95 percent of its previous purchase volume (in dollars) in service with CenturyLink in order to receive a discount off of CenturyLink’s month-to-month rates and to receive circuit portability.³³ In addition, under Verizon’s Commitment Discount Plan (“CDP”) in legacy Bell Atlantic and NYNEX territories, a customer must commit to maintaining 90 percent of its DS1 and/or DS3 purchase volumes (depending on the services that the customer chooses to purchase under the CDP) in service with Verizon in order to receive circuit portability.³⁴ And, under AT&T’s Term Payment Plan (“TPP”) “portability commitment” in legacy Pacific Bell and Southwestern Bell territories, a customer must commit to maintaining 80 percent of its DS1 purchase volume in service with AT&T in order to receive circuit portability.³⁵

28. Some ILEC volume commitment provisions make benefits regarding channel termination *conditional on purchase commitments for other rate elements*. For example, the revenue-based

each additional circuit installed in legacy BellSouth territory. *See Ameritech Operating Companies Tariff F.C.C. No. 2 § 7.5.15; BellSouth Telecommunications Tariff F.C.C. No. 1 § 7.5.9(A)(1).*

³³ *See Qwest Corporation Tariff F.C.C. No. 1 § 7.1.3(B); see also Letter from Thomas Jones and Matthew Jones, Counsel to tw telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25, et al., at 16 (filed Apr. 11, 2012) (“tw telecom April 11 Letter”) (summarizing the provisions of the RCP).*

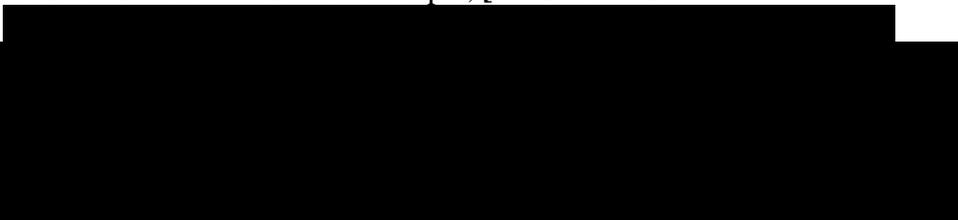
³⁴ *See Verizon Telephone Companies F.C.C. Tariff No. 1 § 25.1.3(A)(5); Verizon Telephone Companies F.C.C. Tariff No. 11 § 25.1.3(A)(5).*

³⁵ *See Pacific Bell Telephone Company Tariff F.C.C. No. 1 § 7.4.18(E); Southwestern Bell Telephone Company Tariff FCC No. 73 § 7.2.22(E).*

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volume commitment under Qwest’s RCP includes revenues generated by both channel terminations and transport circuits.³⁶

29. The ILEC contracts that include volume commitment provisions typically require a customer to pay *shortfall penalties* when its actual purchase volume falls short of its contractually committed volume. For example, under Qwest’s RCP, if a customer were to shift more than 5 percent of its purchases from Qwest to an alternative provider during the plan’s term, and thus fall short of its 95 percent commitment level, the customer would nonetheless be required to pay Qwest for its full commitment level volume.³⁷ Similarly, under Verizon’s CDP, if a customer were to shift more than 10 percent of its DS1 or DS3 purchases from Verizon to an alternative provider during the plan’s term, and thus fall short of its 90 percent commitment level, the customer would nonetheless be required to pay Verizon for its full commitment level volume.³⁸ In a particularly egregious example, under AT&T’s TPP “portability commitment,” if a customer were to shift more

³⁶ See Qwest Corporation Tariff F.C.C. No. 1 § 7.1.3(B)(1). Other ILEC special access contracts condition the availability of discounts or benefits on commitments by the customer to purchase *non-special access services* from the ILEC. For example, **[BEGIN HIGHLY CONFIDENTIAL]** 

[END HIGHLY CONFIDENTIAL] Conditions like this have two related effect. First, they add limitations on the ability of rival suppliers to compete with ILECs to provide other services to the limitations on their ability to compete to provide special access services. As in the case of special access services, these conditions deny scale economies to rival suppliers and reduce their incentives to make investments in cost-reducing innovations. Second, and related, they raise the prices of the other services by reducing the competition that ILECs face in supplying them.

³⁷ See Qwest Corporation Tariff F.C.C. No. 1 § 7.1.3(B)(3)(c).

³⁸ See Verizon Telephone Companies F.C.C. Tariff No. 1 § 25.1.7(B); Verizon Telephone Companies F.C.C. Tariff No. 11 §§ 25.1.7(B).

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than 20 percent of its DS1 purchases from AT&T to an alternative provider during this term, and thus fall short of its 80 percent commitment level, AT&T would charge the customer a monthly penalty of \$900 for each circuit by which the customer's purchases fell short of its commitment level volume.³⁹

30. Many of these contracts also require customers that are experiencing increases in their circuit purchases from the ILEC to commit to maintaining a large share of this *growth* with the ILEC in order to avoid penalties. That is, these contracts impose penalties unless a customer increases its commitment when its purchases significantly exceed its initial commitment. For example, under AT&T's TPP, AT&T imposes a \$900 monthly "overage" penalty for each circuit in excess of 124% of a customer's initial purchase commitment unless the customer increases its commitment to make up for the overage.⁴⁰ Under this provision, **[BEGIN HIGHLY**

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[REDACTED] **[END HIGHLY CONFIDENTIAL]**.⁴¹ This clearly creates an enormous incentive for a customer to increase its commitment level as its requirements increase, which then has the effect of reducing the size of the market available to ILEC rivals in

³⁹ See Pacific Bell Telephone Company Tariff F.C.C. No. 1 § 7.4.18(E)(4)(b) (indicating that the monthly shortfall penalty is equal to the nonrecurring channel termination charge for each circuit by which the customer falls short), § 7.5.9(I)(5) (indicating that the nonrecurring channel termination charge is equal to \$900); Southwestern Bell Telephone Company Tariff F.C.C. No. 73 § 7.2.22(E)(4)(b) (indicating that the monthly shortfall penalty is equal to the nonrecurring channel termination charge for each circuit by which the customer falls short), § 7.3.10(F)(1) (indicating that the nonrecurring channel termination charge is equal to \$900).

⁴⁰ See Pacific Bell Telephone Company Tariff F.C.C. No. 1 § 7.4.18(E)(4)(c); Southwestern Bell Tariff FCC No. 73 § 7.2.22(E)(4)(c).

⁴¹ See *tw telecom April 11 Letter* at 7.

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subsequent periods. This, in turn, has the effect of severely limiting, or foreclosing entirely, the ability of rival suppliers of special access services to compete for any growth in a customer's requirements.

31. Finally, even at the expiration of an ILEC contract term, it would be extremely costly for a customer to shift any significant portion of its purchases of special access channel terminations to ILEC rivals. This is so because the customer would be required to pay the ILEC's extremely high month-to-month rates during the period from the end of the original contract until the initiation of a new one, which would likely be a significant period of time.⁴² For those locations to which the ILEC controls the only last mile facilities, the customer would be required to pay month-to-month rates until a competitive provider could deploy last mile facilities and initiate service. And even for those few locations to which a non-ILEC had already deployed last mile facilities, the customer would be required to manage the transition of its customers from the ILEC's network to the alternative provider's network—a process that *tw telecom* and others have explained would be extremely burdensome if a large number of customers were involved.⁴³ Verizon claims that a customer can remain on an expiring plan for a two-month "grace period" and manage its transition to an alternative wholesale provider during this brief window.⁴⁴ However, in light of the factors

⁴² *See Comments* at 28-30.

⁴³ *See id.* at 29-30 ("Among other things, the competitor would be required to coordinate with each of its affected retail customers individually to schedule a mutually agreeable time at which its service can be interrupted and the necessary network modifications performed, dispatch service representatives to each of its affected retail customers' premises to establish a new network interface, and coordinate with third-party private branch exchange vendors where necessary to perform further equipment modifications."); *see also tw telecom August 21 Letter* at 7-8.

⁴⁴ *See Letter from Evan T. Leo, Counsel for Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 et al.*, at 4-5 (filed July 16, 2012).

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described above, tw telecom and others have concluded that such a period would likely be far too short for the company to switch to non-ILEC facilities at a significant number of locations.⁴⁵

32. Together, all of these factors – term commitments for individual circuits with penalties for early termination, high non-recurring charges, contracts that condition discounts and benefits on minimum purchase requirements, penalties for failure to increase minimum purchase commitments to accommodate growth in purchases, and contract structures that provide virtually no ability to shift purchases to ILEC rivals after expiration of the contract term – explain why tw telecom and other customers have been unable to shift more than a modest portion of their requirements for special access service to alternative suppliers. Because the penalties for doing so would be so large, the incentives of tw telecom and other customers to shift purchases to ILEC rivals at the beginning of a contract term, during the term of the contract, and at the end of the contract term, are substantially diminished, if not altogether eliminated. tw telecom and other customers can only retain the flexibility to shift purchases to alternative suppliers, thereby subjecting ILECs to effective competition, if they pay rates that exceed, by a wide margin, the rates that are available under ILEC contracts that do not provide that flexibility and/or if they forego other contractual benefits such as circuit portability.

VI. How ILEC Loyalty Contracts Lead to Higher Special Access Rates

33. There are a number of mechanisms that lead to higher special access rates when firms like tw telecom must effectively purchase a large percentage of their total requirements from the ILEC in order to avoid the penalty provisions in ILEC loyalty contracts.

⁴⁵ See *Comments* n.60; see also *tw telecom August 21 Letter* at 7.

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34. First, note that the demand curve faced by the ILEC is the market demand curve for special access minus the quantity that other (“fringe”) suppliers would supply at each price. However, if the quantity that can be sold by the fringe is limited by the fact that the buyer must purchase a large share of its historic purchase volume from the ILEC in order to avoid a penalty, the demand curve faced by the ILEC becomes less elastic. As a result, the price that the ILEC is able to charge to firms like tw telecom rises.

35. Second, limiting the sales of rival suppliers of special access can deny them economies of scale, thus raising their costs. As Elhauge puts it:

Suppose [that] ...[o]ther firms stand poised to enter the market, or to expand until they achieve sufficient scale to reduce their costs to [those of the monopolist] ...in which case competition will drive prices down to [the monopolist’s cost]....To prevent this competitive outcome, the monopolist announces a loyalty program....As a result, rivals cannot enter, or expand enough to achieve their minimum efficient scale, and the buyers all continue to pay [the monopoly price]...which is [higher than] the...price they would have paid but for the loyalty program.⁴⁶

36. Similarly, Dennis Carlton, Patrick Greenlee, and Michael Waldman note that “tying the competitive good to the monopoly good can deny necessary scale to the rival firm, leading the rival firm to exit, and allowing the monopolist to set a higher price for the complementary good.”⁴⁷ In this case, the complementary good is special access service at those locations at which the rival is able to provide service. Contracts that limit purchases from rival suppliers of special access service can prevent these rivals from achieving the scale economies that they need to compete.

⁴⁶ Elhauge, *supra* note 24, at ¶ 3.

⁴⁷ D.W. Carlton, P. Greenlee, and M. Waldman, “Assessing the Anticompetitive Effects of Multiproduct Pricing,” 53 *Antitrust Bulletin* 587, at 602 (2008).

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37. The Commission has previously recognized the importance of scale economies to entities that wish to compete with ILECs in providing special access services. For example, in its *Triennial Review Remand Order*, the Commission noted:

Competitive LECs face large fixed and sunk costs in deploying competitive fiber, as well as substantial operational barriers in constructing their own facilities. The costs of loop construction are fixed, meaning that they are largely independent of the particular capacity of service that a customer obtains at a particular location. For fiber-based loops, the cost of construction does not vary significantly by loop capacity (i.e., the per-mile cost of building a DS1 fiber loop does not differ significantly from the cost to construct a DS3 or higher-capacity fiber loop), but such costs do vary based on the length of the loop. The most significant portion of the costs incurred in building a fiber loop results from deploying the physical fiber infrastructure into underground conduit to a particular location, rather than from lighting the fiber-optic cable. The record reflects that for these reasons, LECs do not typically construct fiber loop facilities at lower capacity levels, such as DS1 or DS3, but rather install high-capacity fiber-optic cables and then use electronics to light the fiber at specific capacity levels, often “channelizing” these higher-capacity offerings into multiple lower-capacity streams.⁴⁸

38. Finally, Carlton, Greenlee, and Waldman present a dynamic version of this issue. They note that, “If tying by the monopolist serves to lower the rival’s output, then the anticipation of such tying tomorrow can lower the rival’s R&D expenditure today and in this way increase the rival’s

⁴⁸ *In re Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand, 20 FCC Rcd. 2533, ¶ 50 (2005) (“*Triennial Review Remand Order*”).

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marginal cost in subsequent periods.”⁴⁹ In the current context, rival suppliers of special access to tw telecom may not undertake investments that would reduce their costs in later periods, thus reducing their ability to compete at locations where they do not currently provide service, because they anticipate that future sales at those locations will be too small to justify such investments.

39. In summary, by using special access loyalty contracts to discourage customers from purchasing service from rivals, an ILEC can make the demand that it faces less elastic, thus permitting the ILEC to charge higher prices. It can also deny economies of scale to its rivals and discourage R&D expenditures than can lower rivals’ costs, thus either creating a cost advantage for the ILEC, or increasing any cost advantage that it might otherwise have had. Because special access rivals are less able to compete, the ILEC is able to increase its rates.

VII. Many ILEC Loyalty Provisions Do Not Have Efficiency Justifications

40. It is important to understand that many of the highly restrictive provisions that tw telecom must accept in order to obtain significant discounts from the (undiscounted) month-to-month rates, to obtain other contractual benefits, or to avoid penalty provisions, cannot be justified by any efficiencies associated with those terms.⁵⁰ Here, we explain why many of the claimed efficiency justifications for the restrictive contract terms are unsupportable.

41. As explained above, many special access contracts that are offered by ILECs when they provide special access services effectively require the customer to continue to make a very large percentage of its historic purchase levels from the ILEC in order to receive a discount from the

⁴⁹ Carlton, Greenlee, and Waldman, *supra* note 47, at 603.

⁵⁰ Although penalties for early termination are not necessarily inefficient, the manner in which they are imposed by ILECs does raise efficiency concerns. We discuss this issue in detail below when we consider possible remedies to encourage the competitive supply of special access.

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month-to-month rates or to obtain other contractual benefits. Under the terms of these contracts, two customers that purchase the same *percentage* of their historic levels from the ILEC receive the same percentage discount or other benefits even if the *numbers* of circuits that they purchase are vastly different. Alternatively, two other customers that purchase the same *number* of circuits can obtain vastly different discounts or benefits if the *percentages* of their historic purchase levels are vastly different. To the extent that there are economies of scale in the provision of special access, those economies are more likely to depend on the *number* of circuits purchased by a customer than on the *percentage* of the customer's historic purchases that these circuits represent.⁵¹ Indeed, there is no reason to believe that the scale economies that an ILEC experiences in providing a given number of circuits would be any different if the customer that purchases those circuits from the ILEC also purchases additional circuits from a rival.

42. The absence of an efficiency justification for these discount arrangements is further revealed by the fact that the percentage purchase condition is often imposed on purchases in each of a number of widely dispersed geographic areas within an ILEC territory. That is, in order to obtain a discount or other benefit in any area that is served by the ILEC, a customer may be required to meet a percentage purchase condition that applies to the entire territory (which generally includes areas in several states) covered by an ILEC contract.⁵² Thus, even if one geographic area within this

⁵¹ For this reason, Verizon's claim that "selling in greater bulk creates efficiencies by, among other things, reducing the number of individual transactions needed to sell a specified volume," although it might justify a lower price for a larger commitment *volume*, does not justify lower prices for a larger commitment *percentage*. See Letter from Donna Epps, Vice President, Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, at 7 (filed Mar. 27, 2012).

⁵² Note that the discounted price need not be a competitive price but need only be significantly less than the month-to-month price.

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territory were to experience robust competition, a customer may be forced to purchase all or a very large proportion of its requirements from the ILEC in that area in order to obtain the discount on ILEC service in other areas in the territory where the ILEC does not face competition. It is highly unlikely, to say the least, that an ILEC's costs in providing special access to a particular customer in one of its service areas are affected to any significant degree by the amount of special access services that it provides to that customer in another area.⁵³ Consistent with our previous discussion, an ILEC is likely to benefit from such contracts because they discourage rivals from entering some of their service areas and because they discourage rivals from undertaking investments that would eventually make them significant rivals in many or all of their service areas.

43. The barrier to entry to a rival may be especially significant if it wishes to serve customers, such as tw telecom, who have locations in several areas and who wish to purchase their channel termination services from a small number of suppliers. By severely limiting the sales that the rival can make in some areas, and thus making entry in those areas unprofitable to the rival, the ILEC contracts may make it impossible for the rival to serve customers who have demands for special access service in a number of areas. Moreover, even where entry is not completely foreclosed, the contract provisions can significantly raise the rival's costs and thus limit the share of the market that it is able to serve.⁵⁴

⁵³ For example, it is highly unlikely that AT&T's provision of special access circuits to tw telecom in Florida in any way affects the costs that AT&T incurs when providing special access circuits to tw telecom in North Carolina, and vice versa. However, in order to receive circuit portability in either one of these states, tw telecom must commit to a volume commitment that applies throughout legacy BellSouth territory, which includes both of these states. *See* BellSouth Telecommunications Tariff F.C.C. No. 1 § 2.4.8(B).

⁵⁴ For example, tw telecom has observed that "customers are increasingly demanding that carriers serve most or all of their locations If TWTC cannot obtain access to Qwest's loop facilities on reasonable terms and conditions, it cannot profitably serve all of [a] customer's locations,

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44. In an earlier filing, Verizon purported to provide the “legitimate business reasons” for offering discounts and benefits contingent on volume commitments.⁵⁵ However, nothing in its explanations support the need for discounts or benefits that are based on the percentage of a customer’s historic levels of special access purchased from Verizon. Moreover, as explained above, the fact that Verizon’s discounts plans “are very popular with Verizon’s special access customers”⁵⁶ is evidence not of the attractiveness of the discount plans themselves but only of the unattractiveness of the alternatives offered by Verizon.

45. The first “legitimate business reason” advanced by Verizon is that “volume discount plans are easier to manage and administer and allow providers to avoid the expense of constantly renegotiating the terms of service.”⁵⁷ However, this ease of management and administration is unrelated to the volume commitments in Verizon’s discount plans. Verizon’s special access offerings are set forth in its tariffs, and the terms of its tariffs govern the transaction whether or not a customer chooses to purchase services under a volume-based discount plan.

46. Another “legitimate business reason” advanced by Verizon for its volume discount plans is that they “reflect economies of scale associated with providing a larger amount of service to a single

even if it had been economically feasible to construct loops to the larger locations.” *See* Declaration of Scott Liestman on Behalf of tw telecom inc., ¶ 11 (dated Sept. 21, 2009) (attached as Attachment C to tw telecom Opposition to Qwest Petition for Forbearance, WC Docket No. 09-135 (filed Sept. 21, 2009)).

⁵⁵ Declaration of Quinn Lew and Anthony Recine on Behalf of Verizon, ¶ 28 (dated Feb. 24, 2010) (attached as Attachment B to Reply Comments of Verizon, WC Docket No. 05-25 *et al.* (filed Mar. 19, 2010)) (hereinafter “*Lew and Recine Declaration*”).

⁵⁶ *Id.* ¶ 10.

⁵⁷ *Id.* ¶ 28.

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customer.”⁵⁸ However, as explained above, even if volume discounts for larger *amounts* of purchases could be justified by economies of scale, they do not justify conditioning those discounts on the purchase of a particular *percentage* of a customer’s historic purchases of special access from Verizon.⁵⁹

47. Finally, Verizon defends its volume discounts because they “have allowed Verizon to make ... substantial capital investments with some certainty that its investments will be recovered through special access revenues.”⁶⁰ Again, however, this does not justify conditioning discounts on the percentage of a customer’s historic purchases from Verizon. If a customer were to purchase a smaller percentage of its requirements from Verizon, presumably Verizon would make smaller special access investments and would be able to recover the costs of those investments from the proceeds of special access purchases that are actually made by the customer. Although the percentage requirements provision of its contracts does provide “certainty” to Verizon, the only thing that is “certain” is that it will be substantially shielded from competition.

⁵⁸ *Id.*

⁵⁹ The distinction between quantity discounts and market share discounts is well understood. *See, e.g.,* P. E. Areeda and H. Hovenkamp, *Antitrust Law* ¶ 768 at 169 (3d Ed., 2008) (discussing the difference between these two types of provisions). Level 3 distinguishes anticompetitive “volume commitment” requirements over multiple locations from pricing based on the quantity of circuits or bandwidth ordered by a customer to a particular location or on a particular transport route, saying that the latter may reasonably reflect economies of scale in providing higher capacity facilities. *See* Letter from Michael J. Mooney, General Counsel, Regulatory Policy, Level 3, to Marlene H. Dortch, Secretary, Federal Communications Commission, at 29, n.88 (filed Feb. 22, 2012) (hereinafter “*Level 3 February 22 Letter*”). However, Bruce Kobayashi notes that “volume based thresholds could mimic...market share targets by setting lower volume based targets for smaller firms.” B.H. Kobayashi, “The Economics of Loyalty Discounts and Antitrust Law in the United States,” Law and Economics Working Paper Series, 05-26, at 1, *available at* http://www.law.gmu.edu/assets/files/publications/working_papers/05-26.pdf. We discuss such “tailoring” below.

⁶⁰ *Lew and Recine Declaration* ¶ 28.

VIII. Remedies to Encourage Competitive Supply of Special Access

48. The anticompetitive effects of ILEC loyalty contracts arise principally from two types of provisions in tariffs and commercial agreements: (a) volume commitments that effectively require a customer to make a very large percentage of its special access purchases from the ILEC in order to obtain discounts from month-to-month rates or other benefits; and (b) high non-recurring charges, lengthy term commitments, and large early termination penalties that discourage a customer from terminating an ILEC special access service and shifting its purchase to an ILEC rival. In order to provide customers of special access services with the ability to switch from ILECs to lower-priced rival providers of special access the Commission should: (1) reduce the volume commitments in ILEC special access arrangements to a level that does not inhibit shifting a significant share of purchases to ILEC rivals, and (2) permit ILEC special access customers to terminate their purchase of a circuit without penalty provided they have either paid a non-recurring charge that covers any customer-specific sunk costs⁶¹ or have made monthly payments that are sufficient for the ILEC to have recovered those costs. By adopting these proposals, the FCC would encourage more robust competition in the market for special access services while, at the same time, ensuring that ILECs are able to recover their costs, earn a reasonable return on their investments, and offer their customers a wide variety of pricing options.

49. We emphasize that the FCC should adopt these remedies as soon as possible. The ILECs' high market shares in the provisions of DS1 and DS3 services, which we understand to be the services most commonly subject to loyalty contracts, the high entry barriers associated with providing these services, and the absence of plausible efficiencies associated with the loyalty

⁶¹ We discuss this concept in more detailed below.

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contracts justify eliminating the harmful effects of those contracts now. There is no need for the FCC to wait to conduct the data gathering and analysis discussed in the *Data Request Order* and the further NPRM in the special access proceeding prior to adopting the remedies we describe herein. Under our proposal, ILECs would still be able to compete for a very large share of special access purchases but such competition would be “on the merits” rather than be distorted by the anticompetitive provisions in current loyalty contracts.

A. Reducing the purchasing commitments in ILEC special access contracts to a level that does not inhibit shifting a significant share of purchases to an ILEC rival

50. We propose that ILECs be required to reduce substantially, or eliminate altogether, the volume commitment that a customer must make to obtain discounts or other benefits.⁶² This change would greatly expand the proportion of the special access market for which potential entrants could compete. It would accomplish this result both by reducing the incentives to purchase from the ILEC at the beginning of a contract term and by reducing the disincentives to switch purchases to a rival during the duration of a contract. Thus, for example, if the purchase commitment were 50%, a customer that is currently purchasing 80% of its historic purchases from the ILEC would have the flexibility to terminate circuits without penalty if it were to shift, say, 10% of its purchases to rivals.⁶³

⁶² As we note below, Level 3 has proposed that the FCC require that eligibility for discount rates or benefits be available for customers that make a commitment of at least 50% of the amount that the customer spent on special access services in the previous year from the ILEC, a market share that is well below the level that is required by existing ILEC discount plans.

⁶³ As we discuss below, the ILEC should be permitted to recover any customer-specific sunk costs that are associated with the circuits that are no longer being purchased.

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51. The ILECs should also be barred from offering discounts or other benefits individually tailored to the quantity purchased by each customer.⁶⁴ That is, to the extent that quantity discounts are justified by economies of scale in serving a customer, the same quantity discounts should be offered to all customers. Accordingly, in order to limit the ability of ILECs to evade a ban on setting a high percentage purchase requirement, ILECs should be prohibited from entering into contract tariffs that condition discounts or benefits on a dollar- or quantity-based volume commitment that is effectively larger than the maximum percentage-based commitment permitted under such a ban.⁶⁵

52. In addition to placing limits on the commitment that a customer must make to obtain discounts from the month-to-month rates or to receive other benefits, the Commission should prohibit provisions that impose penalties in discount arrangements for exceeding a committed number of circuits or a committed level of expenditure. Although this would not, by itself, permit ILEC rivals to compete for *current* purchases of special access, it would constrain the ability of ILECs to prevent customers from shifting the *growth* in their purchases to ILEC rivals.

53. Furthermore, the Commission should also prohibit special access discount arrangements that require commitments to purchase services other than special access. Such tying arrangements

⁶⁴ ILECs frequently tailor contract tariffs to include volume commitments that likely track individual customers' historic purchase volumes. For example, Verizon's Contract Tariff Option 10 provided a discount for a customer that purchased between \$49,000,000 and \$56,000,000 of special access in one year. See Verizon Telephone Companies Tariff F.C.C. No. 1 § 21.11. As Fiona Scott-Morton notes, "a threshold that is buyer-specific may be more of a [competitive] problem." F. Scott-Morton, *supra* note 17, at 4.

⁶⁵ Of course, although a ban on tailoring tariffs to the quantities purchased by each individual customer may not altogether prevent an ILEC from using quantity discounts to exclude rivals, it will limit their ability to engage in such behavior. A ban on tailoring will be more effective in promoting competition the more diverse are the amounts purchased by different ILEC customers.

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enable an ILEC to leverage its dominance in the market for one or more special access services in order to limit the competition that they face in other markets, including other special access markets in which competition is more robust.

54. If these remedies were adopted and ILEC rivals were able to compete effectively, the need to regulate special access charges, and to determine what those charges should be, would be reduced. However, such a state of affairs is unlikely to occur for some time. ILEC rivals will need to make additional investments in order to increase the number of buildings that they can serve, something that will take a long time.⁶⁶ Moreover, to the extent that ILEC rivals have been discouraged from undertaking cost-reducing research and development, the process is likely to take even longer. For these reasons, even if these proposals were adopted, it would be necessary for some time to prevent ILECs from raising special access rates above current discounted levels or eliminating existing benefits.⁶⁷

⁶⁶ The Commission has previously recognized that ILEC rivals face significant obstacles to deploying new facilities. For example, in the *Triennial Review Remand Order*, the Commission noted that “competitive LECs . . . face substantial operational barriers to constructing their own facilities. . . . [T]he construction of local loops generally takes between six to nine months absent unforeseen delay. Competitive LECs describe on our record the possible delays affecting construction decisions and the time it takes to deploy fiber. Often these delays are attributable to problems in securing rights-of-ways from local authorities in order to dig up streets prior to laying fiber, including lengthy negotiations with local authorities over the ability to use the public rights-of-way and obtaining building and zoning permits. Moreover, commenters note that many local jurisdictions impose construction moratoriums which prevent the grant of a franchise agreement to construct new facilities in the public rights-of-way.” *Triennial Review Remand Order* ¶ 151.

⁶⁷ See *Level 3 February 22 Letter* at 29. Specifically, Level 3 proposed that price-cap LECs should be precluded from conditioning a discount on “a customer’s commitment to purchase more than 50% of the amount spent on special access services in the previous year” and that they should be required to “maintain current discount levels and other lock-up benefits contained in discount plans or contract tariffs” *Id.*

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B. Limiting the non-recurring charges, term commitments, and early termination fees that ILECs may impose.

55. We propose that an ILEC should be permitted to impose a one-time, nonrecurring charge for a special access circuit only to the extent that such charge is no higher than the customer-specific sunk costs of providing the circuit. Similarly, we propose that an ILEC should be permitted to set a term commitment for a special access circuit at a duration no longer than is needed to recover the customer-specific sunk costs of providing the circuit and to impose a penalty for terminating a circuit prior to expiration of the term that is no higher than the unrecovered customer-specific sunk costs of providing the circuit.

56. Term commitments (and non-recurring charges) in special access contracts are presumably justified by the need for a carrier to recover its customer-specific sunk costs. These are the costs of facilities that (a) are used to serve a particular customer, i.e., they must be “sunk” in order to serve that customer irrespective of the amount of service taken by that customer, and (b) cannot be shifted to serve a different customer if the first customer ceases taking the service, i.e., the facilities are specific to a customer. Customer-specific sunk costs are thus distinguished both from costs that can be avoided if the purchases by a customer are reduced and from costs for facilities that can potentially be used by a different customer if the first customer ceases taking the service.⁶⁸

⁶⁸ An example of a customer-specific fixed cost is the cost of terminating an ILEC’s facilities at a building that is occupied by a single potential customer. If that customer stops taking service, the facilities have no alternative use and the cost will already have been incurred. However, if there are several customers in a building and the facilities can be used to serve a different customer, the cost is not customer-specific. Of course, in the latter case, the ILEC must still expect to recover this cost but not entirely from its first customer at that location.

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57. To the extent that a carrier incurs customer-specific sunk costs, it must expect to recover those costs during the duration of its contract with that customer.⁶⁹ For that reason, we do not dispute Verizon’s claim that it needs to “recover the costs associated with deploying facilities.”⁷⁰ That is, to the extent that an ILEC incurs customer-specific sunk costs, the ILEC can legitimately expect to be permitted to recover those costs through payments from its customers. The relevant questions are the magnitude of those costs and the manner in which they are recovered. Assuming that such costs exist, customers should have the option of paying for customer-specific sunk costs in the form of a non-recurring charge with no term requirement instead of higher monthly payments. If a customer has paid a non-recurring charge for the costs that are specific to it and that cannot be recovered if the customer were to cease taking a service, the ILEC will have already recovered those costs from the customer and there is no justification for imposing a minimum contract term on that customer or, equivalently, imposing a charge if the customer fails to use the service for a minimum period of time.

58. However, there are ways in which customer-specific sunk costs can be recovered without imposing minimum term commitments or penalties for early termination. Moreover, even when term commitments or penalties can be justified, it is important that they not be greater than are needed to promote efficient investments.

59. Large and unjustified penalties for early contract termination can have an effect similar to those of percentage purchase commitments in that they can discourage a customer from switching

⁶⁹ The ILEC may, in addition, incur customer-specific costs if a circuit is transferred from the ILEC to a competitive provider. Any circuit migration charges that are imposed when the ILEC circuit is terminated should similarly be limited to the actual costs of making the transfer.

⁷⁰ *Lew and Recine Declaration* ¶ 28.

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from an ILEC to a competing supplier for part of its requirements by imposing a very large cost for doing so. In that sense, they can “lock in” a purchaser to the ILEC even if a superior competitive alternative were to arise.⁷¹

60. To analyze whether a particular termination penalty provision is anticompetitive, one must begin by inquiring whether, and the extent to which, the ILEC incurs sunk costs to serve the specific customer. It is notable that the ILEC investments in the facilities that supply virtually all DS1 channel termination circuits have been sunk before an additional customer is served. Legacy special access facilities, owned by the ILEC, exist at most user locations. As a result, the additional costs incurred by an ILEC for connecting a customer to those DS1 channel termination circuits are likely to be modest and to consist primarily of changing software settings and physically cross-connecting existing lines at the customer’s building.⁷² ILECs could easily recover these costs in the form of non-recurring charges. In such cases, imposing significant early termination charges serves only to prevent customers from switching to an ILEC rival in the future and have no efficiency justification.⁷³

61. Even where substantial customer-specific sunk costs are incurred to provision a new customer circuit, the ILEC could still be protected against the risk of early termination without imposing very large termination penalties by providing the customer the option of either: (1) making an up-front payment equal to those costs, or (2) making recurring payments that amortize

⁷¹ As Level 3 has explained, cancellation penalties make it “more difficult to use a price-cap LEC ‘bridge’ as a tool to reach full competition. The price-cap LECs clearly recognize this and try to prevent it through offering all-or-none terms.” *See Level 3 February 22 Letter* at 19.

⁷² *See* Comments of Sprint Nextel Corporation – NBP Public Notice # 11, GN Docket No. 09-51, at 43-45 (filed Nov. 4, 2009).

⁷³ The ILECs justify these termination provisions as necessary to provide them with “revenue stability.” Of course, this stability is achieved at the cost of a reduction in competition.

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the costs with the additional proviso that any remaining payments would be due if the customer were to terminate the contract before its completion. By tying any termination payment to the sunk costs that are actually incurred by the ILEC, it cannot be used to inefficiently discourage the customer from switching to a rival supplier of special access.⁷⁴

62. Customers that do not choose to pay the non-recurring cost in the form of an upfront charge should pay the same monthly charge as customers that do choose to pay the upfront charge plus an amount that is equivalent, in present value, to the non-recurring charge that they would otherwise pay. Indeed, customers could be given the option of paying the customer-specific sunk costs over any fixed period, including a period that is shorter than the life of its contract with the ILEC, in which case the charge for the sunk costs would be eliminated when those costs had been recovered. In this way, a customer can, in effect, be free to purchase from an ILEC rival without penalty by making its payment for any customer-specific costs over a relatively short period. In any event, there is no justification for a charge that exceeds the ILEC's true customer-specific sunk costs whether it is imposed on a non-recurring or a monthly basis.

63. One benefit of separating the recovery of the ILEC's customer-specific sunk costs and ongoing costs, is that it makes it easier to determine whether the non-recurring charge that is being demanded to recover the sunk costs is commensurate with a reasonable estimate of those costs, something that is obscured in the current arrangement. It also makes it easier to determine whether the term requirement that is being demanded by the ILEC is justified by its need to "recover the costs associated with deploying facilities." If these costs are modest, the required term for a

⁷⁴ As we note below, one way for the Commission to limit the amount of these payments would be to use the charges imposed by other ILECs as benchmarks. Of course, this would not impose a significant limit if the charges imposed by all ILECs are inflated.

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customer that does not choose the upfront payment option should be short and, in these circumstances, more customers would be likely to choose the upfront payment option.⁷⁵ To the extent that the current tariffs provide a large discount only for customers that accept a long contract term, they implicitly treat sunk costs as large, even if that is not the case.

64. There is no efficiency justification for tying a customer's early termination penalty to the *revenues* that would have been received by the ILEC if the customer had completed its contract term, since those revenues may bear little or no relationship to the customer-specific sunk *costs* that the ILEC incurs in serving that customer.⁷⁶ Under many ILEC contracts, even if customer-specific sunk costs are a very small percentage of the total revenue that would be generated if the customer completes its contract term, the early termination penalty can be very large. The only possible purpose of such provisions is to prevent a customer from shifting purchases to a rival during the term of its contract with the ILEC.

65. It should also be noted that, where there are customer-specific sunk costs that are recovered in the form of recurring charges, once these costs have been recovered the monthly tariff rates should be reduced by the amounts that are being charged to recover these costs.⁷⁷ Thus, if the length of the first contract term is deemed sufficient to recover sunk costs, maintaining rates at the same level during a second (or additional) term would amount to recovering these costs two (or

⁷⁵ A reasonable level for the NRC can be established using an average of customer-specific sunk costs, based on a straightforward cost study of a sample of the ILEC's customers' circuit termination service.

⁷⁶ Such penalties can be justified only if a commitment to serve one customer prevents the supplier from serving another, but that is not the case here.

⁷⁷ Maintaining a distinction between those parts of a tariff that are intended to recover sunk costs from those that are intended to recover ongoing costs would facilitate implementation of this proposal.

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more) times. Multiple recoveries of the same sunk costs are not required to promote efficient investments. For the same reason, the Commission should prohibit ILEC arrangements that impose a penalty if a customer terminates a circuit and connects a new circuit (i.e., the Commission should require ILECs to offer circuit portability), provided that the customer has paid the benchmark non-recurring charge for the terminated circuit. It follows that ILECs should be required to provide special access circuits at rates that do not include any charges to recover customer-specific sunk costs where such costs have previously been recovered from the purchaser.

66. The customer-specific sunk costs that we have been discussing should be treated the same way whether the final customer is served directly by the ILEC or is served through an intermediary. That is, if sunk costs are modest, that should be reflected in all of the ILEC's rates, including special access. There is no justification for waiving the fixed charge, or equivalently imposing a short term requirement, or for reducing monthly rates by a large amount, for a retail customer while, at the same time, imposing a large fixed charge, or a long term requirement, or a high monthly charge on special access purchasers, many of which use special access services as inputs into downstream retail services.⁷⁸

67. Furthermore, we note that the variation in non-recurring charges in ILECs' tariffs for special access channel termination services provides the Commission with the opportunity to benchmark these charges. For example, as noted above, AT&T's non-recurring installation charges for DS1 channel terminations range from \$150 in legacy Ameritech territory to \$900 in legacy PacBell and Southwestern Bell territories.⁷⁹ The Commission should establish as a benchmark for customer-

⁷⁸ Of course, sunk costs may differ somewhat between the two cases, but we do not expect these differences to be large.

⁷⁹ *See supra* ¶ 26 & n.32.

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specific sunk costs the lowest of the non-recurring charges for channel termination now charged in ILEC tariffs and limit any non-recurring charge to that benchmark value.⁸⁰

68. Moreover, the use of benchmarking to foster conditions that encourage competition need not be limited to non-recurring charges. For example, the Commission should also establish benchmarks for charges for circuit migration, for limits on the number of requests to transfer service processed per day, and for other charges and provisioning practices based on the least restrictive practices of ILECs.⁸¹

69. Finally, we understand that some ILECs offer more favorable circuit-specific term plans, smaller termination penalties, or even circuit portability, but in only a portion of their territories. In such cases, the Commission should extend the use of regulatory benchmarking to require that, where an ILEC offers more favorable contract terms in one part of its territory, it must offer those terms throughout its entire territory. This would have the effect of allowing customers in one area to benefit from the existence of competition in another area.

⁸⁰ For a general discussion of benchmarking, see “Benchmarking and the Effects of ILEC Mergers,” Declaration of Joseph Farrell and Bridger M. Mitchell (dated Oct. 14, 1998) (attached as Attachment C to Sprint Communications Company L.P., Petition to Deny, CC Docket No. 98-141 (filed Oct. 15, 1998)).

⁸¹ See *Level 3 February 22 Letter* at 13-14; [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL].

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Attachment 1 to Stanley M. Besen and Bridger M. Mitchell,
“Anticompetitive Provisions of ILEC Special Access
Arrangements”

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EDUCATION

City College of New York

B.B.A., Economics (1958)

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M.A., Economics (1960)

Ph.D., Economics (1964)

PROFESSIONAL EXPERIENCE

2008- Senior Consultant, Charles River Associates

1992-2008 - Vice President, Charles River Associates

1980-1992 - Senior Economist, The Rand Corporation

1990-1991 - Visiting Professor of Law and Economics, Georgetown University Law Center

1988-1989 - Visiting Henley Professor of Law and Business, Columbia University

1985-1988 - Coeditor, Rand Journal of Economics

1978-1980 - Co-Director, Network Inquiry Special Staff, Federal Communications Commission

1971-1972 - Brookings Economic Policy Fellow, Office of Telecommunications Policy, Executive Office of the President

1965-1980 - Assistant Professor, Associate Professor, Professor of Economics, Allyn R. and Gladys M. Cline Professor of Economics and Finance, Rice University

1963-1965 - Economist, Institute for Defense Analyses

1962-1963 - Acting Assistant Professor of Economics, University of California, Santa Barbara

CONSULTANCIES

The Rand Corporation, 1972-1978

Office of Telecommunications Policy, Executive Office of the President, 1972-1977

Department of Defense, 1967

PROFESSIONAL ACTIVITIES/HONORS

Member, National Research Council Board on Earth Sciences and Resources, Division on Earth and Life Studies, Committee on Licensing Geographic Data and Services, 2002-2004

Member, The National Academies, Computer Science and Telecommunications Board of the Division on Engineering and Physical Science, Committee on Internet Navigation and the Domain Name System, 2001-2004

Member, Editorial Board, Economics of Innovation and New Technology, 1989-present

Member, Editorial Board, Information Economics and Policy, 1992-2004

Member, U.S. National Committee on Data for Science and Technology (CODATA), National Academy of Sciences/National Research Council, 1993-1996

Member, Office of Technology Assessment Advisory Panel on Communications Systems for an Information Age, 1986-1988

Member, Regional Telecommunications Planning Advisory Committee, City of Cincinnati, 1985

Member, Office of Technology Assessment Advisory Panel on Intellectual Property Rights in an Age of Electronics and Information, 1984-1985

Expert, World Intellectual Property Organization/UNESCO Meeting on Unauthorized Private Copying of Recordings, Broadcasts and Printed Matter, 1984

Who's Who in America, 1982-1983, 1984-1985, 1986-1987, 1988-1989, 1990-1991, 1992-1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012

Who's Who in Science and Engineering, 2011-2012

Member, Editorial Board, Southern Economic Journal, 1979-1981

Member, Task Force on National Telecommunications Policy Making, Aspen Institute Program on Communications and Society, 1977

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Wilson University Fellow, 1959-1961

Overbrook Fellow, 1958-1959

Beta Gamma Sigma, 1958

PUBLICATIONS

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Misregulating Television: Network Dominance and the FCC, University of Chicago Press, 1984 (with T.G. Krattenmaker, A.R. Metzger, and J.R. Woodbury). Paperback edition, 1986.

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Selected Presentations

"Regulating Intellectual (Property) Monopolies," Australian Competition and Consumer Commission Conference on Revisiting the Rationale for Regulation, July 2008.

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Panelist, DOJ/FTC Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy, Session on Licensing Terms in Standards Activities, April 18, 2002.

Panelist, Federal Communications Commission Roundtable on Media Ownership Policies, Session on Ownership Policies and Competition, October 29, 2001.

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Panelist, Federal Trade Commission Hearings on Global and Innovation-Based Competition, November 30, 1995.

“The Role of Users in Information Technology Standardization,” Workshop on The Economic Dimension of Standards - Users and Governments in IT Standardisation, sponsored by MITI, MPT, and the OECD, Tokyo, November 1992.

Witness, Subcommittee on Intellectual Property and Judicial Administration, Committee on the Judiciary, U.S. House of Representatives, 1991. Prepared statement and testimony appear in **Intellectual Property and International Issues**, 102nd Congress, 1st Session.

Witness, Subcommittee on Telecommunications and Finance, Committee on Energy and Commerce, U.S. House of Representatives, 1990. Prepared statement and testimony appear in **Cable Television Regulation (Part 2)**, 101st Congress, 2nd Session.

Witness, Subcommittee on Telecommunications, Consumer Protection, and Finance, Committee on Energy and Commerce, U.S. House of Representatives, 1983. Prepared statement and testimony appear in **Options for Cable Legislation**, 98th Congress, 1st Session.

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Panelist, Session on "The Role of Competition in the Electronic Media," Federal Trade Commission Symposium on Media Concentration, 1978. Comments reprinted in Federal Trade Commission, Bureau of Competition, **Proceedings of the Symposium on Media Concentration**, Volume I.

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REDACTED – FOR PUBLIC INSPECTION

Attachment 2 to Stanley M. Besen and Bridger M. Mitchell,
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A.B. Economics (1962)

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PROFESSIONAL EXPERIENCE

2008-Present *Senior Consultant, CRA International, Oakland, CA*

1994–2008 *Vice President, CRA International, Palo Alto, CA*

1972–1994 *Senior Economist, Social Policy Department, RAND Corporation, Santa Monica, CA*

1977–1979 *Research Fellow, International Institute of Management, Science Center, Berlin*

1976 *Acting Associate Professor of Economics, Stanford University*

1973–1975 *Lecturer in Economics, UCLA*

1972 *Director, National Health Insurance Analysis Staff, Department of Health, Education, and Welfare, Washington, D.C.*

1971–1972 *Brookings Economic Policy Fellow, Office of the Secretary, Department of Health, Education, and Welfare, Washington, D.C.*

1971–1972 *Economic Policy Fellow, The Brookings Institution, Washington, D.C.*

1966–1971 *Assistant Professor of Economics, Stanford University*

PROFESSIONAL ORGANIZATIONS

American Economics Association.

International Telecommunications Society

Member, Editorial Board, Information Economics and Policy, 1985–2004

Member, Organizing Committee, Telecommunications Policy Research Conference, 1990

Chair, Organizing Committee, Telecommunications Policy Research Conference, 1991–1993

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APPENDIX B

tw telecom Estimate of Non-Incumbent LEC Deployment in Phoenix MSA

As a purchaser of special access services from other carriers, tw telecom (“TWTC”) has access to lists of commercial buildings to which such carriers own last-mile facilities. By aggregating these lists, TWTC can calculate an estimate of the number of buildings with demand for special access services to which carriers other than the incumbent LEC own last-mile facilities in a given market. Because this is a very labor-intensive process, and because TWTC understands that the Commission will be conducting a similar process with information it collects in the forthcoming data request, TWTC has not completed this process for every market. However, to serve as an example for the purposes of these comments, TWTC has done so for the Phoenix MSA.

As set forth in Table 1, TWTC estimates that non-incumbent LECs have constructed last-mile facilities to less than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] of commercial buildings in the Phoenix MSA. Therefore, TWTC estimates that the incumbent LEC controls the only last-mile facility to more than [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] of these buildings.

[BEGIN HIGHLY CONFIDENTIAL]

Table 1: Non-Incumbent LEC Building Penetration			
MSA	Total Buildings w/demand of 2 DS1s or more	Buildings to which Non-ILECs has Constructed Loops	Building Penetration
Phoenix, AZ	[REDACTED]	[REDACTED]	[REDACTED]

[END HIGHLY CONFIDENTIAL]

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APPENDIX C

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tw telecom Build/Buy Analysis

tw telecom (“TWTC”) builds its own loop and transport facilities whenever it is efficient and cost-effective to do so. Unfortunately, for a number of reasons, there are many locations where TWTC cannot economically construct its own loop facilities. TWTC generally builds its local network in the parts of metropolitan areas containing the largest enterprise customers using fiber ring transport facilities. TWTC constructs rings to very large commercial buildings as part of the original construction of its local transport network in a metropolitan area. In the majority of cases, however, TWTC must build a stand-alone fiber lateral (*i.e.*, loop) facility to a building containing a business customer it seeks to serve on its own network after the customer has agreed to purchase service from TWTC.

In assessing whether it is cost-effective to deploy its own loop facilities, TWTC determines whether the revenue opportunity associated with a given building or a given customer is large enough to justify construction. To justify construction, the potential revenue must be sufficient to cover the total cost of construction and recurring expenses and simultaneously achieve a reasonable rate of return on investment. Costs vary based on the distance between TWTC’s transport network and the customer location (the longer the lateral facility, the greater the deployment cost), costs associated with obtaining access to poles, ducts, conduits, rights-of-way and commercial buildings, the type of services provided (electronics for higher capacity services generally cost more than electronics for lower capacity services) and the customer’s willingness to enter into a longer-term contract.

After considering these factors, a small minority of customer locations meets tw telecom’s revenue requirements. As of March 2012, TWTC has been able to deploy its own loop facilities to only an average of **[BEGIN HIGHLY CONFIDENTIAL]** [REDACTED] **[END**

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HIGHLY CONFIDENTIAL] of its customer locations in five sample MSAs. Those MSAs are the Atlanta, Los Angeles, Phoenix, Seattle, and Washington DC MSAs shown in Table 1.

[BEGIN HIGHLY CONFIDENTIAL]

Table 1: TWTC Building Penetration			
MSA	Total Buildings w/demand of 2 DS1s or more	Buildings to which TWTC has Constructed Loops	Building Penetration
Atlanta, GA			
Los Angeles, CA			
Phoenix, AZ			
Seattle, WA			
Washington, DC			

[END HIGHLY CONFIDENTIAL]

TWTC recently conducted a build-buy analysis, taking into account the aforementioned factors, for these five MSAs in order to identify the buildings in those areas to which TWTC could potentially deploy loop facilities in the future. In conducting the build-buy analysis, we made two basic assumptions. First, we assumed that TWTC must earn an approximate monthly recurring revenue (“MRR”) per building over a 36 month period, as shown in Table 2, to justify construction of loop facilities under the best of conditions. This amount is the approximate MRR required to reach the target on-net building internal rate of return (“IRR”) of **[BEGIN HIGHLY CONFIDENTIAL]** [REDACTED] **[END HIGHLY CONFIDENTIAL]** that TWTC uses in the marketplace. This assumption includes the estimated average cost, including electronics, to deploy a loop facility in each MSA. Over 400 actual cost records were examined across the five MSA’s to calculate the average cost per each MSA.

[BEGIN HIGHLY CONFIDENTIAL]

Table 2: TWTC Loop Construction Costs and MRR		
MSA	Average Construction Costs	Average MRR
Atlanta, GA	██████████	██████████
Los Angeles, CA	██████████	██████████
Phoenix, AZ	██████████	██████████
Seattle, WA	██████████	██████████
Washington, DC	██████████	██████████

[END HIGHLY CONFIDENTIAL]

These costs reflect an average cost to build lateral facilities within one mile of TWTC’s fiber network. TWTC rarely constructs these facilities beyond a mile, as it is generally cost-prohibitive to do so, except where there are extraordinary revenue opportunities. Accordingly, the build/buy analysis was limited to buildings within a mile of TWTC’s network.

Hypothetically, the MRR threshold can be met in any number of ways using a combination of customer sizes and services. Practically speaking, however, TWTC requires a firm commitment from one or several customers to justify the build and will not undertake a build until that commitment is secured. Thus, in the majority of build scenarios there must be at least one larger business customer who has committed to a level of service that can meet TWTC’s minimum MRR threshold to justify a build.

Second, TWTC assumed that it can win [BEGIN HIGHLY CONFIDENTIAL] ██████████ [END HIGHLY CONFIDENTIAL] of the revenue opportunity in a commercial building. Using these assumptions, TWTC estimated that it might be able to construct loop facilities to buildings with the amounts per month in estimated telecommunications spending shown in Table 3. TWTC then relied on GeoResults data estimating the revenue spend in the

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commercial buildings with two DS1s of demand or more in the five MSA’s to determine the percentage of such buildings to which TWTC has not constructed its own loops (“non-TWTC buildings”) but to which it *might* be able to do so in the future. Based on this analysis, TWTC determined that it might be able to build to only an average of [BEGIN HIGHLY CONFIDENTIAL] [REDACTED] [END HIGHLY CONFIDENTIAL] of the non-TWTC buildings in each MSA as shown in Table 4. The total number of such buildings to which TWTC has built or (assuming that barriers to entry are overcome) could theoretically build loops in each MSA are summarized in Table 5. [BEGIN HIGHLY CONFIDENTIAL]

Table 3: Minimum Amount of Telecom Spend Required per Building		
MSA	MRR Required	Telecom Spend Required per Building
Atlanta, GA	[REDACTED]	[REDACTED]
Los Angeles, CA	[REDACTED]	[REDACTED]
Phoenix, AZ	[REDACTED]	[REDACTED]
Seattle, WA	[REDACTED]	[REDACTED]
Washington, DC	[REDACTED]	[REDACTED]

Table 4: Buildings Viable for TWTC Build Consideration			
MSA	Total Non-TWTC Buildings (w/demand of 2 DS1s or more)	Buildings Viable for Build Consideration	Percentage of Buildings Viable for Build Consideration
Atlanta, GA	[REDACTED]	[REDACTED]	[REDACTED]
Los Angeles, CA	[REDACTED]	[REDACTED]	[REDACTED]
Phoenix, AZ	[REDACTED]	[REDACTED]	[REDACTED]
Seattle, WA	[REDACTED]	[REDACTED]	[REDACTED]
Washington, DC	[REDACTED]	[REDACTED]	[REDACTED]

Table 5: Percentage of Buildings To Which TWTC Has Or Could Build Loops						
MSA	Market Penetration Percentage		Percentage of Buildings Viable for Build Consideration		Total	
Atlanta, GA						
Los Angeles, CA						
Phoenix, AZ						
Seattle, WA						
Washington, DC						

[END HIGHLY CONFIDENTIAL]

It should be noted that this build-buy analysis does not account for the fact, as explained, that TWTC generally cannot begin building its own loops unless and until potential customers in a given building in fact commit to purchasing the high revenue services that justify loop construction. This is why, even where TWTC has built its own transport facilities, there remain numerous buildings to which TWTC could theoretically, but cannot practically, afford to build loop facilities.

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APPENDIX D

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**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 Internet Special Access Services)	RM-10593

**DECLARATION OF KEVIN F. BRAND
ON BEHALF OF EARTHLINK, INC.**

1. I am Executive Vice President, Customer Delivery and Care, for EarthLink, Inc. (“EarthLink”). In this position, I am responsible for delivery and post-installation customer support for the services that EarthLink provides to businesses and consumers. I joined EarthLink in 2001 and have held the positions of Vice President of Network Operations, Vice President of Products, and most recently, Chief of Consumer Products and Support. I have more than 30 years of experience in the telecommunications industry. Prior to joining EarthLink, I was Executive Vice President of Operations at CAIS Internet. Prior to that, I held a variety of management positions at AT&T, AT&T Paradyne, and AT&T Bell Laboratories in operations, customer support, product management, marketing, and technical areas.

2. EarthLink is a leading IT services, network, and communications provider to more than 150,000 businesses of all sizes and over one million consumers nationwide. EarthLink empowers customers with data and voice IP services, as well as managed IT services including cloud computing, data centers, virtualization, security, applications, premises-based

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solutions, managed solutions, and support services. Among the data and Internet services that EarthLink offers to business customers are T1, DS3, Ethernet, and DSL services.

3. The purpose of this declaration is to describe (1) the demands of businesses that currently purchase dedicated T1, DS3, and Ethernet services (hereinafter, “special access services”); and (2) the differences in terms of service quality and price between special access services and “best efforts” Internet access services (such as DSL and cable modem services) marketed to businesses.

4. Most businesses that currently subscribe to special access services demand (and receive) dedicated bandwidth at the locations where those services are being used. At those locations, businesses (such as multi-location retail businesses) require guaranteed, consistent speed to run applications that are “mission critical” to their business (*e.g.*, applications that enable them to access customer data, process credit card payments, and communicate with customers, vendors, and suppliers). They cannot tolerate the slower and inconsistent speeds that users of shared services, such as “best efforts” cable modem services, can experience during peak usage times.

5. Most businesses that currently purchase special access services demand (and receive) symmetrical bandwidth at the locations where those services are being used (*e.g.*, bank branches, hospitals, and doctors’ offices) so that employees can download as well as upload large files. By contrast, the vast majority of “best efforts” Internet access services that are offered today do not provide symmetrical speeds.

6. Most businesses that currently purchase special access services demand (and receive) greater reliability at the locations where those services are being used than can be provided with “best efforts” Internet access services. At those locations, for example, customers

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expect their special access services to be repaired within a few hours of an outage. For this reason, EarthLink's Internet access Service Level Agreements ("SLAs") for dedicated special access services provide that EarthLink's "Mean Time to Repair" ("MTTR") will be between 4 to 6 hours depending on the type of service. By contrast, EarthLink's SLA provides that the MTTR for ADSL service will be 24 hours.

7. Most businesses that currently purchase special access services demand (and receive) greater security at the locations where those services are being used than can be provided with some "best efforts" Internet access services. For example, using dedicated connections provided by T1, DS3, and Ethernet special access services is inherently more secure for the transmission of customers' financial data or patients' medical records than using the shared connections provided by "best efforts" cable modem services.

8. There are also significant price differences between dedicated special access services and "best efforts" Internet access services. For example, EarthLink currently offers T1 service starting at \$289 per month. By contrast, EarthLink currently offers DSL service (up to 6 Mbps/768 Kbps) starting at \$67 per month and standalone ADSL service (up to 7 Mbps/768 Kbps) starting at \$97 per month.

9. In light of the demands of business customers that purchase special access services (*e.g.*, their need for dedicated bandwidth) and the differences between special access services and "best efforts" Internet access services, I do not believe that the vast majority of businesses currently purchasing special access services view "best efforts" Internet access services as a viable substitute.

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I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

K F. Brand

Kevin F. Brand

Dated: 2/8/2013

CERTIFICATE OF SERVICE

I, Matthew Jones, hereby certify that on this day, February 11, 2013, I caused to be served a true and correct copy of the foregoing Comments of BT Americas, Cbeyond, EarthLink, Integra, Level 3, and tw telecom via First-Class U.S. Mail to:

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A handwritten signature in black ink, appearing to read "Matthew Jones", is written over a horizontal line.