In the Matter of  

Special Access Rates for Price Cap Local Exchange Carrier  

AT&T Corp. Petition for Rulemaking to Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services  

WC Docket No. 05-25  

RM-10593  

REPLY COMMENTS OF INCOMPAS  

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February 19, 2016
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Introduction and Summary

INCOMPAS respectfully submits these reply comments in the above-referenced proceedings. Expert economists who have evaluated the extensive data collected in this proceeding agree that the large incumbent local exchange carriers (“ILECs” or “incumbents”) have market power in the provision of dedicated services. Specifically, the economists have reached the following conclusions:

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2. As used in these comments, the terms “dedicated service,” “connection,” “location,” and “prior purchase-based commitment” have the meaning defined in the special access mandatory data request. See Special Access for Price Cap Local Exchange Carriers; AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, Order on Reconsideration, 29 FCC Rcd. 10899, App. A (2014) (defining (1) “connection” as “a wired ‘line’ or wireless ‘channel’ that provides a dedicated communication path between a Location and the first Node on a Provider’s network”; (2) “dedicated service” as a service that “transports data between two or more designated points,
[M]ost dedicated services markets are monopolies, and most of the rest are duopolies. When there is one provider, it is nearly always an incumbent local exchange carrier (ILEC). Most duopoly markets are served by an ILEC… . Moreover, the prospect of entry is unlikely to deter incumbents from charging supracompetitive prices.  

[I]n the case of special access, the ILEC is the only service provider in the vast majority of building locations and there are no more than two facilities-based providers in the vast majority of significantly larger census block areas…. On the basis of this evidence, it is reasonable for the Commission to conclude that the structures of most special access product and geographic market are unlikely to result in the prices that would prevail in a competitive marketplace.  

Parties to this proceeding—including AT&T—agree with the view expressed by the Commission in the Pricing Flexibility Order that it must look at facilities-based competition in determining the level of market power in the provision of dedicated services.  

The facilities the Commission needs to focus on in this proceeding are “connections,” as the term is defined in the mandatory data request.  

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4 Declaration of Stanley M. Besen and Bridger M. Mitchell, attached to Comments of Sprint Corporation (“Sprint”), at 25 and 28, (Besen/Mitchell Declaration”).

5 The Commission found in the Pricing Flexibility Order that relief should be provided “when competitors have made irreversible, sunk investment in facilities” and “UNEs do not represent sunk investment in facilities used to compete with incumbent LECs in the provision of special access and dedicated transport services.” Access Charge Reform, et al, Fifth Report and Order and Further Notice of Proposed Rulemaking, FCC 99-206, CC Docket No. 96-262, et al, ¶ 94 (1999) (“Pricing Flexibility Order”); See, AT&T at 6, citing Pricing Flexibility Order ¶ 80.

6 Supra n. 2, defining the term “connection.”
The incumbents’ make the absurd argument that if a competitor has a facility in an area (such as a zip code or census block), regardless of the extent of connections to locations, there is competition. This is a definition of competition only an incumbent could conjure up, as it has little or nothing to do with whether or not a consumer has a choice in providers. It is also a convenient stance as “the incumbent LECs own the only loop connection to the vast majority of commercial buildings in the U.S.” Even where a competitor has been able to leverage its existing network to build a connection to a single location, or even a few locations, this is no indication that a competitor can build facilities to all locations. Indeed, the record demonstrates otherwise. The idea that a new entrant can simply build off an existing facility in an area, such as a fiber ring running through a census block, to every location in that area is somewhat akin to suggesting that because one can add another lane to the freeway, one can easily add another lane to every road in the area. In other words, if there is a four-lane freeway circling an area, then one

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7 AT&T at 7-8 (“Special access competition does not occur merely or even primarily among carriers that already have an existing connection to a building, because additional carriers with the ability to deploy a connection (based on, for example, a large fiber ring or transport facilities that are near the building) also vigorously compete for the business of the building’s special access customers.”); See also, Verizon at 20 (suggesting facilities-based entry be evaluated at the level of a metropolitan area rather than the individual building.); See Besen/Mitchell at 24, fns. 61 and 62 (“there are no CLECs with customers in many census blocks where CLEC fiber is present….even in census blocks where CLECs have customers, they tend to be few in number.”)

8 Comments of Birch Communications, Inc., BT Americas Inc., EarthLink, Inc., and Level 3 Communications, LLC (“Level 3”) (“Comments of Joint CLEC’s”) at 6 (“In light of their historic advantages and their exclusionary conduct, it is no surprise that the incumbent LECs own the only loop connection to the vast majority of commercial buildings in the U.S.”).

9 XO at 4-5 (CLECs “have only been able to economically deploy fiber to a relatively small number of commercial buildings.”); Besen/Mitchell Declaration at n. 62 (“even in census blocks where CLECs have customers, they tend to be few in number.”); Besen/Mitchell at 18, ¶ 32 (“the fact that a CLEC serves at least one purchaser in a census block gives no indication of the magnitude of that CLEC’s sales volumes and revenues within that area.”)
should consider there to be potential for four lanes of traffic extended to every roadway in the area. This is not reality.

What is quite evident is that the large incumbent carriers still have market power stemming from their ubiquitous network, large customer-bases, and economies of scale and scope—resulting from decades of being protected monopolists—and that they use that dominance in an anti-competitive manner to thwart competition. The Commission cannot wait and just hope for—what the record demonstrates is infeasible in the foreseeable future—multiple builds to every location. The Commission must take swift and comprehensive action to prevent the exercise of market power by adopting safeguards that ensure that these critical services are offered at rates, terms and conditions that are just, reasonable and non-discriminatory.

Special access service (i.e., dedicated service) is a $40 billion market\textsuperscript{10} impacting a significant number of businesses and non-profit entities in industries spanning the entire U.S. economy. Failure to ensure just and reasonable rates, terms, and conditions for special access services has a significant negative impact on the economy as a whole. As the Commission has recognized, its policy framework for special access services affects competition and investment in the downstream markets for retail business broadband services provided to small businesses, mobile customers, non-profits, and enterprise customers.\textsuperscript{11}

I. The Commission Must Focus on Facilities-Based Competition in its Review of the State of Competition in the Special Access Market

In designing the remedies needed to address the large incumbent LECs’ market power,


the Commission should pay special attention to the wholesale market. Wholesale purchasers include, among others, wireless providers that lease a dedicated connection to a cell tower/site to use as backhaul for their wireless traffic, and competitive providers that lease a last-mile connection to one or more locations of a multi-location customer to provide dedicated services at all locations. Only with a properly functioning wholesale market—particularly the wholesale market for contemporary packet-based services—will the full range of business services be available to consumers. As such, the Commission must attach particular importance to conditions in the underlying wholesale market in its evaluation. Effective, sustainable, competition for the full panoply of business and wireless services requires that entry barriers be minimized. Much of the competitive differentiation in the business market comes not from the capabilities of the underlying transmission facilities, but rather the provider’s expertise in integrating those facilities into its retail customer’s local network to provide a tailored communications solution. This competition, however, is critically dependent on the ability to obtain the necessary wholesale dedicated transmission services to craft these solutions on just and reasonable terms. Consequently, just as the Commission concluded in the Qwest Phoenix Order, a comprehensive market analysis must be used to evaluate wholesale conditions here.

The large incumbents make much ado over competitors that have become leading Ethernet providers in the retail business market as a reason for them to escape their statutory obligations. As these competitive carriers have repeatedly explained, while they build to a location where economical, they rely extensively on their ability to obtain connections to a

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12 See Baker Declaration at 14, ¶ 28.

location from the incumbent (via special access or unbundled elements).\textsuperscript{14} Indeed, as is evident in this proceeding, ensuring the availability of such connections on just and reasonable terms and conditions is critical for there to be effective competition in the retail business and wireless markets. Strong and effective competitive wholesale policies for special access services are a solution that makes it possible for any carrier (including the incumbents’ affiliates when operating outside their incumbent regions) to compete across a region or nationwide.

The result of ILECs acting as if no policies restrain their last mile wholesale services practices where there is clear market failure—particularly for packet-based services—has led to supra-competitive pricing (retail and wholesale) for dedicated services,\textsuperscript{15} lock-up agreements that obstruct investment and the free markets,\textsuperscript{16} unaffiliated wireless competitors at a serious

\textsuperscript{14} See e.g., Comments of XO at 8 (XO’s provision of services to retail customers “relies extensively on ILEC provided loop or channel termination inputs, either UNEs or Dedicated Services.”).

\textsuperscript{15} See e.g., Comments of Sprint at 46, 75 (“[I]ncumbent LECs set “rack rates” for special access plans that are unmoored from commercial reality—a business-killing “MSRP” that few customers do or could ever pay. . . . One estimate calculates the annual amount of unreasonable special access overcharges to be at least $10 billion.”); Comments of Joint CLECs at 59-60 (finding the forbearance granted on Ethernet-based services “yields excessive and unpredictable prices, impedes the development of competition, and harms the public.”)

\textsuperscript{16} See e.g., Comments of Sprint at v (“Through these terms and conditions built into special access plans, it is now clear that incumbent LECs harness their market dominance to force purchasers into a “your money or your life” choice—either agree to competition-killing loyalty commitments (and the overage charges, shortfall payments, and inflated early termination payments that reinforce these commitments) or face business-killing rack rates or restrictions in service. . . the cost to the marketplace as a whole is high, as the barriers that new entrants face in attempting to win away customers that are locked into loyalty plans become considerably higher.”); Comments of Joint CLECs at 64 (“The available evidence indicates that incumbents have taken advantage of this situation by setting rates above competitive levels and imposing terms and conditions that reduce competition.”); Designation Order ¶ 1 (Commission initiates an investigation into the terms and conditions of certain incumbent local exchange carrier tariff pricing plans of AT&T, CenturyLink, Frontier, and Verizon for business data services (or special access services) that competitive LECs allege are unreasonable, anticompetitive, and lock up the vast majority of the demand for TDM-based business data services.)
competitive disadvantage, as well as frustration of the transition to 5G networks, and price squeeze experiences, all of which deter investment, stifles innovation and leave consumers without sufficient competitive options. Competitors are impeded from building even where otherwise economical, hindered in applying competitive pressure on the incumbent’s retail rates; and, in some cases, have been precluded from even providing retail services at certain locations. Significantly, this will become even more pronounced as the industry transitions

17 See e.g., Comments of Sprint at 74 (“The high cost of wired connections, however, presents a very real barrier for wireless carriers to overcome.”)

18 See e.g., id. at 87 (“Failure to address this marketplace will hinder the transition to IP technologies, including the movement to advanced 5G mobile networks.”)

19 Numerous parties have explained the ability of the incumbent to set wholesale prices at or above their corresponding retail prices. See Comments of Windstream at 51 (finding “at least some large ILECs have completely stood the concept of discounts to wholesale customers on its head—by charging the carrier customer much more than a comparable retail customer, even when the carrier customer makes significant volume commitments that the retail customer does not”). See Comments of XO at 43; see also Comments of TDS at 3 (“RBOCs are and have been abusing their market power for wholesale Ethernet services ...because wholesale rates significantly exceed retail rates with no legitimate business reason for doing so.”).

20 See Comments INCOMPAS at 10-11.

21 See e.g., Comments of Sprint at 77 (“special access loyalty and tying provisions imposed by the incumbent LECs can lead to reduced investment in research and development.”)

22 See e.g., id. at 74 (“Indeed, the pernicious effects of the incumbent LECs’ practices cannot be overstated they both deter deployment of new competitive broadband networks and deprive consumers of access to affordable broadband service.”)

23 See e.g., Letter of Thomas Cohen, Counsel for XO Communications, Inc. to Marlene Dortch, WC Docket No. 05-25, p. 8, dated Sept. 23, 2015; See also, See Designation Order at ¶¶ 7, 12, 32, 42, 55 and 73.

24 See e.g., Comments of TDS at 3.

25 See e.g., Comments of XO at 43.
further away from circuit-based to packet-based services if the Commission does not sufficiently address the broken special access market.

II. The Relevant Geographic Market Is the End-User Location or Cell Tower

The key question in this proceeding is the extent to which there is facilities-based competition in the provision of last-mile connections to business customers. As the Commission has stated:

*The relevant geographic market is a particular customer’s location, because it would be prohibitively expensive for an enterprise customer to move its office location in order to avoid small but significant and nontransitory increases in the price of special access services, and because there are significant entry barriers to putting competitive last-mile facilities into place.*

Consequently, the facilities the Commission needs to focus on in its evaluation of market power are connections (as defined in the data request), not fiber rings or Internet backbone networks. After all, this proceeding is about special access options available to individual customer locations, not about transit services or broadband Internet access services. Retail consumers purchase dedicated services based on their own building location(s), and wholesale carrier customers’ purchase based on the location(s) of their retail customer(s). Customers of wireline dedicated services are tied to specific locations, and cannot substitute services located elsewhere—even if nearby—in response to an increase in prices for services to their locations.

Moreover, with regard to multi-location customers, if the incumbent is dominant in the market in any location of that customer, it has a distinct advantage in serving that customer overall. Through this linkage, the incumbent is able to extend its market power in locations

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26 *Wavecom Solutions Corporation, Transferor, and Hawaiian Telcom, Inc., Transferee, Applications for Consent to Transfer Control, Memorandum Opinion and Order and Declaratory Ruling, 27 FCC Rcd 16081, ¶ 12 (2012).*

27 *Baker Declaration at 19, ¶ 35.*
where it is a sole provider, to other markets were it may face competition.\textsuperscript{28} Observance of this phenomenon is critical to the Commission’s analysis. Multi-location customers should be viewed as customers with \textit{multiple localized needs}, a fact that requires that the Commission’s analysis comprehensively evaluate market conditions across multiple locations simultaneously. Dedicated connectivity to each customer location (\textit{e.g.}, office suit, cell tower, etc.) is appropriately defined as a geographic market.\textsuperscript{29}

AT&T argues that the underlying theory of the pricing flexibility rules is that a competitor need not have a connection from its transport network to every single building in an area for that competitor to constrain incumbent prices in that area.\textsuperscript{30} First, the Commission found fault with its pricing flexibility rules, in particular, finding “MSAs have generally failed to reflect the scope of competitive entry.”\textsuperscript{31} In fact, in the \textit{Further Notice}, the Commission found that competition “in the provision of special access appears to occur at a very granular level—perhaps as low as the building/tower.”\textsuperscript{32} Indeed, the Commission has found the appropriate geographic market to be a particular customer’s location.\textsuperscript{33}

\begin{itemize}
\item \textsuperscript{28} \textit{Qwest Phoenix Order} at ¶ 74 (”[I]f a competitor seeks to serve a multi-location business customer, it must have access to facilities that reach all of the customer’s locations.”)
\item \textsuperscript{29} Baker Declaration at 20, ¶ 35.
\item \textsuperscript{30} Comments of AT&T at 7.
\item \textsuperscript{31} \textit{Special Access for Price Cap Local Exchange Carriers}, Report and Order, CC Docket No. 05-25, FCC 12-92 at ¶ 35 (2012).
\item \textsuperscript{33} \textit{Supra} at n. 26.
\end{itemize}
Secondly, the incumbents’ claim that potential competition curbs the exercise of market power is nonsensical. If this were true, we would see their anti-competitive practices being constrained today, but the record shows otherwise. This is because the source of the incumbents’ market power is their connections to virtually every location in their respective territories, based on their historical monopoly, and the infeasibility of competitors replicating the incumbent footprint in terms of connections to locations. So while the incumbents continue to repeat their mantra that widespread competition is on the horizon, as discussed below, competitors do not come close to deploying connections to the number of locations to which the incumbent LECs have deployed connections, and the incumbents also have significant advantage in new fiber deployment in their incumbent territory.

The relevant question for this proceeding is whether there are, or could be, multiple connections to customer locations. Last mile connectivity is prohibitively expensive and

34 See supra n. 7.

35 Supra at 6-7 and fns. 15-19. See also, INCOMPAS Comments at 15-16; see also, Comments of TDS at 27; see also, Ad Hoc Comments at 11 (“The carriers’ own public tariff filings with this Commission have documented the carriers’ higher prices in pricing flexibility areas.”)

36 See infra n. 44. See Comments of XO at 5 (“The continued market power of the ILECs should not be surprising. After all, the incumbents took many decades to build their networks, and they had the advantage of doing so while being the only “game in town.” In contrast, to break that monopoly power, not only must competitors raise enormous amounts of capital to build out backbone network facilities and then laterals to end-user locations, they must obtain public and private right-of-ways (“ROW”) and access right to buildings, and then they need to engage in the construction projects. Further, these network builds cannot be done on speculation. CLECs need to sign up a significant number of customers in advance to justify a lateral construction, and they must complete installation and begin providing service in a timely manner or the customer(s) may be lost. Meanwhile, virtually all of the potential CLEC customers already subscribe to incumbent services.”)

37 At least four facilities-based providers are necessary for competition. See infra at 18 and n. 62.
difficult to deploy. Competitors must overcome substantial barriers to the provision of facilities-based services that the incumbents do not face—such as the need to obtain building and rights-of-way access and permission to build new conduit in a timely manner—in order to deploy last-mile fiber connections to business customer locations. Moreover, competitors have far less customers, as compared to incumbents, over which to spread the significant fixed costs required for fiber deployment. These factors prevent deployment of a connection to a business location by a competitor. Even where a single competitor can do so, it is usually not the case that multiple competitors can do so.

This is evident by the fact Level 3, which Verizon considers a “Mega CLEC,” has deployed loops to approximately 34,000 commercial buildings during its entire company history, with a goal of deploying to approximately 3,000 to 4,000 commercial buildings per year. As XO states, “building networks, especially laterals to building, is very expensive, and despite engaging in network builds for over 15 years, its facilities reach only a fraction of even the most desirable building it covers.” While XO has plans to leverage its existing network assets to reach additional customer locations, its target is “potentially a few thousand additional building.” Windstream echoes, “the vast majority of business locations are a significant distance away from Windstream’s fiber such that the cost of self-provisioning the last-mile connectivity as a CLEC is prohibitively expensive…. [E]ven the largest competitive providers

38 Windstream at 39.
39 Comments of Verizon at 41.
40 Comments of Joint CLECs at 33-34.
41 Comments of XO Communications at i.
42 Id. at 10.
have not been able to build their own last-mile facilities to more than a small fraction of all the business buildings to which the IELCs have connectivity by virtue of their incumbency.”

In contrast, since the incumbent has a connection to virtually every location in its territory—unlike competitors—the incumbent generally has no need to deploy entirely new last mile transmission facilities to provide dedicated services. This is true even for the provision of new services, as much of the same infrastructure is used, even if the technology changes. As the Commission has recognized, the incumbents can “increase capacity on any special access routes at a relatively low incremental cost (relative to the total cost of trenching and placing poles, manholes, conduit, fiber, and copper, and securing rights and access) by adding or upgrading terminating electronics.” This a substantial advantage over competitors.

Moreover, in the instances in which they do need to deploy new fiber facilities, such as to replace copper with fiber or to connect their networks to new office parks, the incumbents face far fewer barriers than competitors due to their current access to poles, ducts conduits, and significantly greater economies of scale and scope that competitive LECs cannot come close to

43 Windstream Comments at 36.

44 See Comments of Joint CLECs at 19-20 and n. 48 (“By virtue of their historical monopolies, the incumbent LECs possess ubiquitous networks that connect to virtually every commercial building within their service areas. This enables the incumbents to provide dedicated services to any of these locations without relying on the networks of other providers.”)

45 For example, the underlying transport facilities for Ethernet services often are the same as the underlying transport for TDM services. And those underlying transport facilities are a key source of the ILECs’ market power in the special access marketplace. When the incumbents provide Ethernet service, they can make use of the same rights of way, trenches, conduit, wires, poles, building access, riser, truck rolls, employees, outside plant, central office equipment, administrative expenses, and other legacy inputs that they use when they provision TDM-based special access services. See Comments of Ad Hoc at 16.

achieving. The build advantages of incumbency has been confirmed by carriers that also compete outside their incumbent regions. TDS has stated that “it is generally far less expensive and more efficient for TDS ILEC to deploy new fiber to business customer locations than is the case for TDS CLEC.” Citing both cost and revenue benefits enjoyed by the incumbent, Windstream has also stated that “ILECs still continue to benefit significantly from their historical monopoly status at many buildings, which confers advantages in deploying the expensive, last-mile portion of networks that are simply not available to competitive providers.” These advantages are evident by considering incumbents’ own fiber build outs, which focus on their legacy service areas. For example, AT&T has deployed fiber to more than one million business locations in its incumbent states within the last several years as part of Project VIP – but has been notably silent in describing the extent to which, if at all, it is deploying last-mile fiber outside its incumbent service areas.

47 See Comments of Joint CLECs at 21.


49 Windstream Comments at 40.

Moreover, the competitive build plans discussed above demonstrate the absurdity of the large incumbents’ claims that the most massive data collection undertaken by the Commission (which the incumbents demanded) is now "stale" and new data would apparently show that “[f]iber-based CLECs provide extensive and growing competition to ILECs.”51 As Ad Hoc aptly points out, incumbents have been claiming for years prior to 2013 that there had been an explosion in competition.52 Expert economists, however, have since found that “most dedicated services markets are monopolies, and most of the rest are duopolies.”53 This demonstrates the importance of the Commission dealing in facts and not conjecture.

The large incumbents’ assertion that they face fierce competition from cable companies is also unpersuasive. Cable providers generally are unable to compete in the provision of dedicated services (as discuss below).54 And, even if you were to generously credit the incumbent claims on cable, for the most part, dedicated service customers would be left with a duopoly. The Commission analysis here, like in the *Qwest Phoenix Order*, should recognize the inherent inadequacy of a duopoly in protecting consumers.55 Indeed, both the Commission and the Department of Justice have indicated that at least four suppliers are necessary for competition.56

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51 Comments of United States Telecom Association at 8; *see also*, Comments of Verizon at 2 and 4; *see also* Comments of AT&T at 3.

52 Ad Hoc Comments at 3-4.

53 Baker Declaration at 3-4, ¶ 6.

54 *See also* Comments of Windstream at 19 (“To the extent that cable companies are beginning to offer dedicated services, Windstream’s experience is these cable offerings are available only in the more limited set of buildings where cable providers have their own last-mile fiber access.”)

55 *Qwest Phoenix Order* at ¶ 38 (“The potential for supracompetitive prices may be a concern where there is a duopoly or a market dominated by a few firms and there are high barriers to entry into the market. Economists, courts, and the Commission have long recognized that duopolies may present significant risks of collusion and supracompetitive pricing, which can
III. Capability of the Connection Is Critical in Defining the Product Market

First, it is important to note, that if the incumbent is the only facilities-based provider to a location, it is the dominant provider for all dedicated services to that location. Beyond that, the Commission must also consider the capability of those facilities to provide, among other things, various products (e.g., Ethernet at various capacity levels) that correspond to the needs of the various types of customers. In the retail market, the relevant product markets are distinguished by the reliability and performance of the service. As INCOMPAS has explained in other proceedings, dedicated service customers may vary in terms of capacity needs and size of their location. They commonly include the smaller locations of larger, multi-location commercial customers. It is especially critical for the Commission to carefully consider availability of lower capacity dedicated services from competitors that own their own connection to the location and the extent to which these providers are capable of serving multiple locations. For example, to the extent there is competition for Ethernet 10 Gbps, does not mean there is competition for 10 Mbps.

Cable modem service services are provided on a “best efforts” basis, and consequently, are not regarded by most purchasers as substitutes for special access dedicated circuits at

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lead to significant decreases in consumer welfare. As the D.C. Circuit has stated, “[t]he combination of a concentrated market and barriers to entry is a recipe for price coordination.”) (citations omitted).

56 See Besen/Mitchell at 17 (citations omitted).

57 See Besen/Mitchell at 8, ¶ 13.
guaranteed levels.\textsuperscript{58} This fact has been echoed by many in this proceeding, including TDS—a provider of cable modem and Ethernet services:

SMB customers that purchase Ethernet service place significant value on the reliability and security associated with dedicated capacity and a high quality of service, including network availability guaranteed close to 100% of the time. Because cable modem service is a best effort service, it cannot provide such guarantees, and does not prioritize voice over data during periods of heavy use. While this does not necessarily disqualify cable modem service from the perspective of smaller customers, most of TDS CLECs’ SMB customers that want 10 Mbps or more prefer dedicated connections with symmetrical speeds to operate and support cloud-based applications.\textsuperscript{59}

This is primarily the result of the inherent limitations in the performance characteristics of the coaxial transmission medium that comprises the final leg of service to the subscriber location. The HFC segment (the shared coaxial network between the fiber hub and the subscriber premises) cannot match the reliability and performance of optical fiber cable. Consequently, as a workable alternative to fiber, legacy cable facilities will continue to fall behind in direct proportion to the demand of customers for stable, consistent, configurable and reliable broadband at ever-increasing speeds. Recent advancements in Data Over Cable Service Interface

\textsuperscript{58} See Comments of BT Americas, Cbeyond, EarthLink, Integra, Level 3 and tw telecom, WC Dkt. No. 05-25, at 50-57 (filed Feb. 11, 2013) (detailing the record evidence demonstrating that retail business customers that purchase special access services generally do not view “best efforts” broadband Internet access services as viable substitutes); Comments of Sprint Nextel Corporation, WC Dkt. No. 05-25, at 20-23 (filed Feb. 11, 2013) (discussing the reasons why “best efforts” offerings that are provided over HFC networks are “unsuitable for [Sprint’s] wireless macrocell-site backhaul needs or as wholesale inputs to the core retail services it sells to its enterprise customers”); Comments of XO Communications, LLC, WC Dkt. No. 05-25, Exhibit 1, ¶ 10 (filed Feb. 11, 2013).

\textsuperscript{59} Comments of TDS at 17. As Ad Hoc Telecommunications Users explained, “best efforts” broadband Internet access services are not a substitute for special access services in part because “[b]y definition, best efforts business broadband Internet access services take customers to the Internet and only to the Internet, via the carrier’s choice of Internet access point; they cannot provide a dedicated connection between two premises designated by the customer, such as a bank ATM machine, a merchant’s point-of-sale terminal, a secure data storage facility, or a cellular service tower.” Comments of the Ad Hoc Telecommunications Users Committee, WC Docket No. 05-25, at 12 (filed Feb. 11, 2013).
Specifications (DOCSIS) as developed by CableLabs, including Full Duplex DOCSIS, will not change the result, as those systems remain significantly inferior to fiber deployments on a fundamental, physical level.

Likewise, fixed wireless services do not have the performance capabilities or sufficient reliability for the provision of dedicated services. As providers of fixed wireless explained, “fixed wireless technology proved insufficient to meet consumers’ needs for bandwidth and reliability. This technology could not simultaneously support both voice and data services, and customers generally did not view the quality of the service as comparable to dedicated wireline connections.”

Conclusion

As the record in this proceeding demonstrates, there is urgent need for the Commission to adopt reform in the special access market to ensure competitors access to last-mile facilities at reasonable rates, terms, and conditions—regardless of the electronics on those facilities. Since, the incumbent LEC owns the only connection to the vast majority of customer locations, without reasonably priced and non-discriminatory wholesale offerings, the large incumbent LECs would be the only option to the vast majority of businesses and wireless providers in their territories. The percentage of connections to which the incumbent is the sole provider, while important, alone does not truly reflect the dominance it provides the incumbent in the retail market. This is because, as the comments reflect, business customers often have multiple locations and they prefer one provider for all their locations. As result, even in the small percentage of buildings where there is more than one connection, to the extent the customer has more than one location,

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60 Comments of TDS at 22; see also Comments of XO at 25.
without the availability of reasonably priced wholesale offerings to the other locations, the incumbent may be the only provider to meet that demand in its incumbent territory.

The Commission should act promptly to adopt reform to ensure rates to not exceed a certain level (that is, rates are just, reasonable and nondiscriminatory), eliminates the ability to impose anti-competitive terms and conditions, provides for a fresh look to existing contracts found to be anti-competitive, and ensures that wholesales rates are below retail rates. The Commission analysis here, like in the *Qwest Phoenix Order*, should recognize the inherent inadequacy of a duopoly in protecting consumers. Both the Commission and the Department of Justice have indicated that at least four suppliers are necessary for competition.

By doing so, the Commission will unleash a virtuous cycle of investment and innovation for wired and wireless networks alike. Competition will flourish, spurring more investment by both competitors and incumbents. Businesses of all sizes and mobile broadband consumers will benefit, and customers will be more satisfied with their ability to choose affordable broadband services targeted to meet their needs.

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61 *Qwest Phoenix Order* at ¶ 38 (“The potential for supracompetitive prices may be a concern where there is a duopoly or a market dominated by a few firms and there are high barriers to entry into the market. Economists, courts, and the Commission have long recognized that duopolies may present significant risks of collusion and supracompetitive pricing, which can lead to significant decreases in consumer welfare. As the D.C. Circuit has stated, “[t]he combination of a concentrated market and barriers to entry is a recipe for price coordination.”) (citations omitted).

62 Besen/Mitchell at 17 (citations omitted).
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