

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

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

WC Docket No. 05-25

RM-10593

**COMMENTS OF VERIZON AND VERIZON WIRELESS**

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The high-capacity marketplace is competitive and dynamic. The facts indicate this marketplace will grow even more competitive prospectively. Demand for broadband and advanced services is rapidly rising. Traditional and intermodal competitors are deploying IP-based technologies in place of special access to meet this demand. If the Commission correctly evaluates the high-capacity marketplace using the right data from all providers, its analysis will confirm that competition is growing and that special access regulation is unnecessary and counterproductive.

The Commission's analysis should be comprehensive both in terms of the types of competition it analyzes and also in terms of how it conducts that analysis. The Commission proposes to use an econometric model as part of its analysis, and a properly constructed model can play a useful role in assessing the competitive dynamics of the high-capacity marketplace.

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<sup>1</sup> In addition to Verizon Wireless, the Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc. (collectively, "Verizon").

But the Commission should also recognize that econometric models are limited, first because they are inherently backwards looking, and second by the underlying assumptions upon which they are based. It is therefore particularly critical that the Commission's model be transparent, with ample opportunity for interested parties to verify the model's structure, inputs, and results.

The Commission should not assume that a model based on a few snapshots of marketplace conditions can accurately predict the future, especially during the current period of rapid growth and technological change that the IP transition is driving. The Commission should adopt a data-driven approach that takes into account the dynamism of this marketplace, while recognizing that where there are multiple firms capable of offering services, this in and of itself demonstrates that competitive alternatives are available and that the marketplace is contestable. Although the Commission should start with determining where competition already exists and recognize that competition in these locations means that entry is economically feasible in locations with similar characteristics, it must also look at how exploding demand and new technologies expand the potential for competition going forward.

The Commission should also ensure that it correctly designs and applies whatever model it uses and that the model does not exclude relevant variables or rely on simplistic or unrealistic assumptions. For example, prices in competitive markets can vary both over time and across geographies for a variety of reasons that must be taken into account to produce meaningful and unbiased results. Moreover, the Commission's analysis must take into account that special access prices at a given location are influenced not only by actual or potential competition at that location but also by competition elsewhere. Customers typically purchase special access at multiple locations. The prices they receive have little if anything to do with market conditions at individual service addresses.

The Commission also must take great care in using pricing trends to analyze competition in the high-capacity marketplace. As the Commission has recognized, special access prices were in many cases artificially low when the Commission first granted incumbent local exchange carriers (“ILECs”) pricing flexibility. It is therefore not surprising that special access prices may have risen since then, and those increases would not indicate insufficient competition.

Finally, it is premature for the Commission to analyze the terms and conditions for special access before it completes its competitive analysis. Where competition is adequate to protect consumers, it is unnecessary to consider the specific terms and conditions on which that competition is occurring. Only if the Commission finds that market forces are inadequate to protect consumers should it devote the resources to analyzing whether special access terms and conditions are reasonable.

**I. THE COMMISSION’S ANALYSIS MUST BE FORWARD LOOKING AND CAPTURE ALL FORMS OF ACTUAL AND POTENTIAL COMPETITION FOR SPECIAL ACCESS.**

The Commission has correctly concluded that its analysis “must take account of both actual and potential competition, as well as sources of intramodal and intermodal competition.”<sup>2</sup> Cable providers and other competitors are expanding existing networks and deploying new wireline and wireless networks and technologies to serve the rapidly growing demand for broadband and other advanced services. In order to assess competition in this dynamic industry, the Commission must look not only at the competitive alternatives available to customers today, but also at new sources of supply that competitors have planned or that are likely to become available going forward. This necessarily includes all forms of competition, including both

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<sup>2</sup> *Special Access for Price Cap Local Exchange Carriers*, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 16318, ¶ 69 n.152 (2012) (“*Notice*”).

traditional, intramodal forms of competition like competitive fiber, and intermodal alternatives like cable and wireless. It also must include competitors' use of third-party facilities and facilities that providers self-supply.

**A. The Commission's analysis must take account of the dynamic nature of the special access marketplace.**

The *Notice* proposes “to perform a one-time, multi-faceted analysis of the special access market designed to determine where and when special access prices are just and reasonable, and whether our current special access regulations help or hinder this desired outcome.”<sup>3</sup> This analysis will rely on data the Commission has requested from industry participants, which involves “market structure, pricing, demand (i.e., observed sales and purchases), terms and conditions, and competition and pricing decisions” primarily for two points in time, “calendar years 2010 and 2012.”<sup>4</sup>

As a threshold matter, the Commission should not assess the present – let alone predict the future – based solely on historical snapshots of the marketplace. This type of analysis may indicate how competition evolved, but it cannot adequately predict how competition will develop. The future of this highly dynamic marketplace is unlikely to be a linear projection of the past.

The Commission has held that where new technologies and new providers are emerging, competition “is more appropriately analyzed in view of larger trends in the marketplace, rather than exclusively through the snapshot data that may quickly and predictably be rendered obsolete

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<sup>3</sup> *Id.* ¶ 67.

<sup>4</sup> *Id.* ¶¶ 27, 30.

as th[e] market continues to evolve.”<sup>5</sup> Snapshots of an incumbent’s market share necessarily are “premised on data that are both limited and static.”<sup>6</sup> Especially in industries marked by rapid technological change, rules based on static assumptions about technology and markets can quickly become obsolete. Worse, they can lead to unintended negative consequences, like stifled investment and innovation. Guessing wrong about how markets will develop could retard the industry’s development and slow the speed at which consumers receive the benefits of next-generation technologies.

Therefore, the Commission has held that it will “consider technological and market changes, and the nature, complexity, and speed of change of, as well as trends within, the communications industry.”<sup>7</sup> The Commission has followed this approach in a variety of contexts, including with respect to high-capacity services. The Commission found that it was not “essential” to have “detailed market share information for particular enterprise broadband services” and that, moreover, it “would not give significant weight to static market share

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<sup>5</sup> *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, ¶ 50 (2005) (“*Wireline Broadband Order*”).

<sup>6</sup> *Id.* ¶ 50. See also *Petition on Behalf of the State of Hawaii, Public Utility Commission, for Authority To Extend Its Rate Regulation of Commercial Mobile Radio Services in the State of Hawaii*, Report and Order, 10 FCC Rcd 7872, ¶ 26 (1995) (“evidence concerning dynamic factors” such as “[g]rowth and investment” is a “more persuasive market indicator than evidence concerning static factors” such as “prices or rates of return”); *MTS-WATS Market Structure Inquiry*, Second Report and Order, 92 FCC 2d 787, ¶ 133 (1982) (“Regulatory policy must take cognizance of the dynamic factors existing in the marketplace. It should not be based solely on static conditions existing today.”).

<sup>7</sup> *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation for Consent To Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 19 FCC Rcd 21522, ¶ 41 (2004).

information” in this “emerging and evolving” marketplace “in any event.”<sup>8</sup> The Commission also correctly observed that its refusal to insist upon static market share information in the context of enterprise broadband services is consistent with how the DOJ/FTC *Horizontal Merger Guidelines* treat dynamic marketplaces.<sup>9</sup> The Commission, therefore, expressly “reject[ed] commenters’ calls to base [its] analysis on such information,”<sup>10</sup> and the D.C. Circuit upheld that decision.<sup>11</sup>

Further, when the Commission in 1999 first gave price cap LECs special access pricing flexibility, it granted relief based on a standard that looked at where the marketplace was “contestable” – that is, where competitors could deploy facilities if and when the incumbent provider attempted to raise prices above cost or reduce product quality.<sup>12</sup> The Commission

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<sup>8</sup> *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services*, Memorandum Opinion and Order, 22 FCC Rcd 18705, ¶ 23 (2007) (“*AT&T Broadband Forbearance Order*”).

<sup>9</sup> See *AT&T Broadband Forbearance Order* ¶ 23 & n.96. See U.S. Dep’t of Justice & Federal Trade Comm’n, *Horizontal Merger Guidelines*, § 5.2 (2010), <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf> (“[R]ecent or ongoing changes in market conditions may indicate that the current market share of a particular firm either understates or overstates the firm’s future competitive significance.”). Under the Merger Guidelines, potential entry by committed entrants is deemed sufficient “to deter or counteract the competitive effects of concern” where such entry is “rapid enough” to ensure that no meaningful anticompetitive effect would result from the merger.” *Id.* §§ 9.0, 9.1.

<sup>10</sup> *AT&T Broadband Forbearance Order* ¶ 23.

<sup>11</sup> See *Ad Hoc Telecomms. Users Comm. v. FCC*, 572 F.3d 903, 908-09 (D.C. Cir. 2009).

<sup>12</sup> See, e.g., *Applications of Voicestream Wireless Corp., Powertel, Inc., Transferors, and Deutsche Telekom AG, Transferee, for Consent to Transfer Control of Licenses and Authorizations Pursuant to Sections 214 and 310(d) of the Communications Act and Petition for Declaratory Ruling Pursuant to Section 310 of the Communications Act et al.*, Memorandum Opinion and Order, 16 FCC Rcd 9779, ¶ 86 n.250 (2001) (“A contestable market is a market that may be competitive if there is the threat of entry by other firms into the industry even if the industry presently has few firms.”) (citing Dennis W. Carlton and Jefferey M. Perloff, *Modern Industrial Organization* at 6, 76).

considered and explicitly rejected a test that would have required the ILECs to demonstrate that they did not have market power.<sup>13</sup> The Commission found then that “regulation imposes costs on carriers and the public, and the costs of delaying regulatory relief outweigh any costs associated with granting that relief before competitive alternatives have developed to the point that the incumbent lacks market power.”<sup>14</sup>

That remains true today. The key issue is still whether the marketplace is contestable, taking into account the rapidly changing economics that make deploying high-capacity facilities more cost-effective than ever before. Where can cable, fixed wireless, and other providers offer services today that discipline market performance? And where will they be able to do so in the next few years? These are the questions on which the Commission should focus its efforts.

***1. The Commission should not rely exclusively on an econometric model.***

As part of its analysis, the Commission proposes to undertake econometric modeling and to conduct panel regressions that would “determine how the intensity of competition . . . affects prices, controlling for all other factors that affect prices.”<sup>15</sup> A model could cast some light on the competitive dynamics of the high-capacity services marketplace. But a model cannot be the Commission’s only tool to analyze competition for high-capacity services. Moreover, the Commission must take great care in how it constructs its model. And it must ensure that the model is transparent so that interested parties can verify the model’s structure, inputs, and results.

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<sup>13</sup> *Access Charge Reform, et al.*, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221, ¶ 90 (1999) (“*Pricing Flexibility Order*”), *aff’d*, *WorldCom, Inc. v. FCC*, 238 F.3d 449 (D.C. Cir. 2001).

<sup>14</sup> *Id.*

<sup>15</sup> *Notice* ¶ 68.

First, a model is only as reliable as its inputs. The Commission correctly issued a comprehensive, mandatory data request, but that request asks primarily for data from year-end 2010 and year-end 2012. A model based solely on data limited to two points in time can capture only the characteristics of the marketplace at those times. Although this may serve a useful purpose, in a rapidly changing marketplace a model relying on historical data inevitably will not account for changes that are already occurring, let alone those that are readily foreseeable. Much of the competitive activity taking place now results from rapidly rising demand and the changing economics of new technologies. A backward-looking analysis cannot reliably account for these factors. The Commission’s inquiry therefore should ultimately be driven by the full range of competitive data that are available, not merely by the model that the Commission constructs.

Second, an econometric model is vulnerable to bias and inconsistency based on how it is constructed (what economists refer to as “specification,” or the process of converting theoretical hypotheses into an empirical model). For example, prices may vary over time or across geographies for a wide variety of reasons – including variations in demand, expansions and contractions of output, and changes in regulation – many of which may be difficult to model, let alone quantify. Moreover, customers typically buy special access at many different locations at once, making it impossible to isolate how competition at any one location may affect prices. Efforts to attribute price variations to measures of the “intensity of competition”<sup>16</sup> in a market must fully account for those factors or they will be biased and unreliable. The Commission’s model must be fully transparent, so that Verizon and other interested parties have the opportunity to evaluate its structure to ensure that it does not contain “specification errors” that improperly bias the results.

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<sup>16</sup> *Id.* ¶ 68.

Third, the Commission’s model must account for how the threat of new entry provides competitive discipline in the high-capacity marketplace.<sup>17</sup> As described further below, for example, cable operators are expanding their networks to provide high-capacity services to business customers. Fixed wireless and other competitors also are deploying new technologies to meet rapidly rising demand for broadband. The Commission has not previously analyzed the economics of these new technologies and their ability to provide competitive discipline in the high-capacity marketplace even in areas where competitors have not yet deployed them. As the Commission proceeds forward with its model, it must take these changing marketplace dynamics into account and identify not only areas where competitors have deployed competitive facilities, but also areas that are contestable in light of rising demand and the availability of new technologies.

Fortunately, the Commission has asked for data that will help it to analyze the competitive dynamics of the high-capacity marketplace, independent of its model. For example, the Commission has asked competitive providers for information related to Requests for Proposals (“RFPs”) to which they have responded, and the business rules they rely upon to determine whether to submit a bid in response to an RFP.<sup>18</sup> The Commission has also asked competitive providers to specify where they plan to advertise or market high-capacity services through 2014.<sup>19</sup> Network maps may also shed light not only on where competitors are capable of

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<sup>17</sup> Michael E. Porter, *How Competitive Forces Shape Strategy*, at 137 & 141, Exhibit, Harvard Bus. Rev. (Mar./Apr. 1979) (“The state of competition in an industry depends on five basic forces” including the “[t]hreat of new entrants.”).

<sup>18</sup> *Notice* at Appendix A, A.11.

<sup>19</sup> *Id.* at Appendix A, A.10.

offering services today, but also on where entry is or will soon be economically feasible.<sup>20</sup> Markets like these are contestable and do not require the heavy hand of regulation to yield competitive outcomes.

Although some of these data may not fit neatly into the Commission's econometric model, they can "specifically shine a light on market participants' future plans to offer special access services," as Commissioner McDowell has stated.<sup>21</sup> The model therefore needs to be just a part of the Commission's analysis. For the Commission's comprehensive analysis to produce accurate results, the Commission must carefully consider qualitative data that demonstrate whether, going forward, competitive alternatives will better discipline market performance than regulation.

**2. *IP-based broadband services are replacing legacy special access services.***

The marketplace for high-capacity services is undergoing a dramatic transformation. Customers are rapidly transitioning away from legacy special access services to IP-based broadband services. Those new services are available over a wide array of wireline and wireless networks. The Commission's analysis must reflect the growing demand for broadband, which is creating more demand for high-capacity services, which in turn provides powerful incentives and opportunities for existing and new competitors to expand to supply this demand.

**a.** One area of explosive growth and change is business Ethernet services, which customers increasingly are using as an alternative to ATM, Frame Relay, SONET and legacy

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<sup>20</sup> *Id.* at Appendix A, A.5.

<sup>21</sup> Statement of Commissioner Robert M. McDowell Approving in Part and Dissenting in Part, *attached to Notice*.

DSn and Private Line services.<sup>22</sup> For a significant and growing number of customers, Ethernet has become a substitute for lower capacity DS1 and DS3 services. Competition for Ethernet services therefore constrains pricing for traditional special access.

Over the past five years, there has been a “10x surge” in the use of Ethernet,<sup>23</sup> which is replacing “legacy services such as SONET, Frame Relay and ATM because it provides more flexible bandwidth options and is highly scalable, which in turn makes it highly cost efficient.”<sup>24</sup> In 2011 alone, Ethernet ports in the United States grew 31 percent with revenues “topp[ing] \$6 billion in 2011,”<sup>25</sup> and in 2012, Ethernet ports in the U.S. grew 24 percent.<sup>26</sup> Industry analysts

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<sup>22</sup> See Roopashree Honnachari, Frost & Sullivan, *Demystifying Carrier Ethernet Services: No One Size Fits All*, BCS 5-02, at 1 (Apr. 6, 2011) (“Frost & Sullivan, *Demystifying Carrier Ethernet Services*”) (Ethernet “is a scalable, reliable and cost-efficient transport service,” which provides “an attractive service option for customers migrating from ATM, Frame Relay, SONET and Private Line services.”); Nav Chandler, IDC, *U.S. Carrier Ethernet Services 2012-2016 Forecast*, IDC #237543, at 2 (Oct. 2012) (Enterprise customers are increasingly “utilizing Ethernet services for domestic and international WAN networking and metro area connectivity and also for access to other services, such as to the Internet or IP VPNs.”).

<sup>23</sup> Vertical Systems Group, *U.S. Ethernet Bandwidth Surpasses Legacy Bandwidth: Milestone Coincides with the MEF’s Ten Year Anniversary* (July 26, 2011), <http://verticalsystems.com/prarticles/stat-flash-2011-July.html>.

<sup>24</sup> Colby Synesael & Jonathan Charbonneau, Cowen and Company, *Telecom and Data Services, Industry Overview, Fiber: A Sector Evolves*, at 14 (Oct. 29, 2010), available at [http://www.jaymiescotto.com/JSA\\_Newsletter/documents/TelecomServices10292010.pdf](http://www.jaymiescotto.com/JSA_Newsletter/documents/TelecomServices10292010.pdf) (“October 2010 Cowen and Company Report”); Ron Kline, Ovum, *Market Segment Profile: Carrier Ethernet*, OT00063-029, at 2 (Oct. 2011) (“Ovum, *Carrier Ethernet*”).

<sup>25</sup> Vertical Systems Group, *Ethernet Services Top \$6 Billion in 2011: Revenue for U.S. Ethernet Services Exceeded \$6 Billion in 2011 Despite Price Compression* (Jan. 24, 2012), available at [http://www.verticalsystems.com/prarticles/stat-flash-jan-2012\\_US%202011Ethernet\\_rev\\_exceeds\\$6B.html](http://www.verticalsystems.com/prarticles/stat-flash-jan-2012_US%202011Ethernet_rev_exceeds$6B.html).

<sup>26</sup> Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD* (Jan. 29, 2013), [http://www.verticalsystems.com/prarticles/stat-flash-YE\\_2012\\_US\\_Leaderboard.html](http://www.verticalsystems.com/prarticles/stat-flash-YE_2012_US_Leaderboard.html) (“Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*”).

predict that “Ethernet revenue for the industry will generate a [compound annual growth rate] of over 20% for the foreseeable future.”<sup>27</sup>

Increasing demand for business Ethernet service has attracted and facilitated increased competition, innovation, and new entry. Frost & Sullivan has found, for example, that providers “are increasingly focusing on enhancing the depth of their offerings,” and “there are more flavors of Ethernet available today in the market as compared to three years ago, which provides business customers with more choices.”<sup>28</sup> Other analysts note that, because of the influx of “multiple suppliers,” “[p]ricing pressure on the carrier Ethernet services market continues to accelerate” because “Ethernet users expect a lower price per bit.”<sup>29</sup>

Business Ethernet services are “being offered by numerous non-incumbents, including [cable] MSOs, CLECs and formerly IP/MPLS virtual network operators (VNOs).”<sup>30</sup> The top five business Ethernet service providers include tw telecom (#3) and Cox (#5).<sup>31</sup> tw telecom

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<sup>27</sup> *Q2 2011 tw telecom Inc. Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 080911a4167350.750 (Aug. 9, 2011) (statement by tw telecom EVP and CFO Mark Peters, citing IDC). See also Roopashree Honnachari et al., Frost & Sullivan, *Analysis of the U.S. Retail Carrier Ethernet Services Market, 2012*, NB8B-63, at 29 (Nov. 2012) (forecasting a compound annual growth rate for Ethernet services sold to enterprises/businesses at 28.9 percent, from 2011 to 2016).

<sup>28</sup> *Frost & Sullivan, Demystifying Carrier Ethernet Services* at 1.

<sup>29</sup> *Ovum, Carrier Ethernet* at 2. See also Nav Chandler & Courtney Munroe, IDC, *U.S. Frame Relay and ATM Services 2011-2015 Forecast and Analysis*, IDC #230578, at 4, 8 (Table 7) (Sept. 2011); Nav Chandler, IDC, *U.S. Private Line 2011-2015 Forecast and Analysis*, IDC #228077, at 2 (May 2011); *Frost & Sullivan, Demystifying Carrier Ethernet Services* at 1.

<sup>30</sup> Charles Carr, Yankee Group, *Forecast: Carrier Ethernet Is Finally Unleashed*, at 4 (Apr. 26, 2011).

<sup>31</sup> *Vertical Systems Group, 2012 U.S. Business Ethernet LEADERBOARD*.

states that it has “Ethernet ubiquity across 75 markets,”<sup>32</sup> that it provides these services using its “extensive fiber facilities,” which “connect[] to 16,919 buildings served directly by [tw telecom’s] fiber facilities,” and that it “continue[s] to extend [its] fiber footprint within [] existing markets.”<sup>33</sup> Cox claims that it serves “more than 20,000 fiber commercial locations,” that Metro Ethernet is available “at a large number of locations served by Cox’s Fiber-To-The-Premise or Hybrid Fiber Coax (HFC) networks,” and that it is “deploying a seamless Ethernet platform across all of [its] markets as quickly as [it] can,” and “providing Ethernet-based services over [its] HFC [network] . . . as well as fiber.”<sup>34</sup>

Other competitive providers in the top eight include Level 3 (#6), XO (#7), and Time Warner Cable (#8).<sup>35</sup> Level 3 touts its “extensive and diverse network” that claims “[o]ver 100,000 enterprise buildings within 500 ft.”<sup>36</sup> XO states that its network includes more than

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<sup>32</sup> tw telecom, *Wholesale Ethernet, Wholesale IP, Wholesale Transport Services*, <http://www.twtelecom.com/telecom-solutions/wholesale-ethernet>.

<sup>33</sup> tw telecom inc., Form 10-Q, at 29 (SEC filed Nov. 6, 2012), <http://www.sec.gov/Archives/edgar/data/1057758/000105775812000038/twtc3q1210q.htm>.

<sup>34</sup> Cox Communications, *Metro Ethernet for Financial Institutions*, <http://ww2.cox.com/wcm/en/business/datasheet/metro-ethernet-brochure-finance.pdf>; Cox Communications, *Metro Ethernet*, <http://ww2.cox.com/business/data/metro-ethernet.cox>; FierceTelecom, *Cox Business: Anticipating Carrier, Commercial Ethernet Growth* (Jan. 5, 2011), <http://www.fiercetelecom.com/special-reports/phil-meeks-vice-president-cox-business-reaching-its-1-billion-sales-milesto> (Cox Business Senior Vice President Phil Meeks).

<sup>35</sup> *Vertical Systems Group, 2012 U.S. Business Ethernet LEADERBOARD*.

<sup>36</sup> Level 3 Communications Press Release, *Level 3 Deepens Commitment to Financial Services Industry with Two New Ultra-Low-Latency European Routes* (Jan. 4, 2011), <http://level3.mediaroom.com/index.php?s=23600&item=65053>; Level 3 Communications, *2011 Annual Meeting of Stockholders Presentation*, at 3 (May 19, 2011), [http://files.shareholder.com/downloads/LVLT/2168870475x0x469486/f0c304e5-b9ea-4c17-a9b6-bd3a8088c521/Level%20%20Communications%20Annual%20Meeting\\_May%202011\\_FINAL.pdf](http://files.shareholder.com/downloads/LVLT/2168870475x0x469486/f0c304e5-b9ea-4c17-a9b6-bd3a8088c521/Level%20%20Communications%20Annual%20Meeting_May%202011_FINAL.pdf).

3,300 buildings on-net in 41 U.S. cities.<sup>37</sup> Time Warner Cable operates networks in 31 states, covering 42 MSAs,<sup>38</sup> and reports that it “now ha[s] 550,000 business services customer relationships,” and that “Metro Ethernet and direct Internet access products [] generated more than a third of business services, high-speed data revenue in [the third quarter of 2012].”<sup>39</sup> At least 29 other companies are providing business Ethernet services: Alpheus Communications, American Telesis, Bright House Networks, BT Global, Charter Business, Cogent, Comcast Business, EarthLink Business, Expedient, FiberLight, Fibertech, Integra, IP Networks, Lightpath, Lighttower, LS Networks, Lumos Networks, Masergy, Megapath, NTT America, Orange Business, Reliance Globalcom, Sidera Networks, Sprint, SuddenLink, US Signal, Virtela, Windstream (including PAETEC), and Zayo Group (including AboveNet).<sup>40</sup>

The extraordinary rise in demand for data-intensive 3G and 4G wireless services has also fueled enormous Ethernet growth in wireless backhaul.<sup>41</sup> As Level 3 explained, 4G data services

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<sup>37</sup> XO Communications, *The XO Network* (Aug. 13, 2012), <http://www.xo.com/SiteCollectionDocuments/carrier-services/Network%20Overview.pdf>.

<sup>38</sup> Charles Carr, Frost & Sullivan, *Cable MSO Ethernet Strategy: Moving Up-Market for New Opportunities*, BCS 6-3, at 13, Figure 1 (Mar. 2012) (“*Frost & Sullivan, Cable MSO Ethernet Strategy*”).

<sup>39</sup> *Q3 2012 Time Warner Cable Inc. Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 110512a4908223.723 (Nov. 5, 2012) (statement by Time Warner Cable President & COO Rob Marcus).

<sup>40</sup> *Vertical Systems Group, 2012 U.S. Business Ethernet LEADERBOARD*.

<sup>41</sup> Commission staff reported two years ago that “mobile data demand is expected to grow between 25 and 50 times current levels within 5 years.” FCC Staff Technical Paper, *Mobile Broadband: The Benefits of Additional Spectrum*, at 5 (Oct. 2010), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-302324A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-302324A1.pdf). See also Roopashree Honnachari et al., Frost & Sullivan, *Analysis of the Wholesale Carrier Ethernet Services Market, 2012*, at 17, NB8C-63 (Dec. 2012) (“With the proliferation of bandwidth hogging 3G/4G wireless devices, there is an exponential growth in mobile backhaul traffic on service providers’ networks, thus pressuring mobile operators to evaluate cost-effective backhaul technologies.”); Ron Kline, Ovum, *Market Opportunity Analysis: Mobile Backhaul*, at 1, TE008-001281 (Jan.

are “really the catalyst for the ubiquity of Ethernet and the ubiquity of fiber to the tower.”<sup>42</sup>

Analysts project that demand for mobile backhaul will grow by 9.7 times between 2011 and 2016.<sup>43</sup>

The rise of mobile wireless backhaul also has created significant opportunities for expansion and new entry. As Insight Research notes, the “large-scale ‘mass migration’ of wireless backhaul from TDM to Ethernet” requires new fiber deployment.<sup>44</sup> As a result, the marketplace is “rife with a large array of operators, including incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), cable multiple system operators (MSOs), fiber-based providers, microwave operators, and resellers.”<sup>45</sup> Competitive wholesalers “are being particularly aggressive in targeting new wireless backhaul opportunities,” while cable

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10, 2013) (“The largest trend affecting mobile backhaul is unrelenting growth in traffic over mobile networks driven by smartphone use.”).

<sup>42</sup> Carol Wilson, *Level 3: Mobile Backhaul Brutally Competitive*, Light Reading (Oct. 7, 2011), [http://www.lightreading.com/video.asp?doc\\_id=213138](http://www.lightreading.com/video.asp?doc_id=213138) (video of interview with Amanda Tierney, VP Wholesale Market Management, Level 3).

<sup>43</sup> See *U.S. Mobile Backhaul Demand Forecast To Grow More Than Nine Times in the Next Four Years* (Mar. 13, 2012), <http://www.fiercemobilecontent.com/press-releases/us-mobile-backhaul-demand-forecast-grow-more-nine-times-next-four-years>. The global demand for mobile backhaul equipment is projected to reach \$10.4 billion in 2014 (compared to \$7.2 billion in 2009). See Infonetics Research Press Release, *Shift Seen in Operator Strategy for Mobile Backhaul; Equipment Spending Up 21%* (Apr. 21, 2010), <http://www.infonetics.com/pr/2010/Mobile-Backhaul-and-Microwave-Market-Highlights.asp>.

<sup>44</sup> Insight Research Corporation, *Carrier and Ethernet Services: Public Ethernet in Metro & Wide Area Networks 2012-2017*, at 8 (July 2012).

<sup>45</sup> Roopashree Honnachari, Frost & Sullivan, *U.S. Mobile Backhaul Services Market: Wireless Service Provider Spending Trends*, BCS5-8, at 6 (Oct. 2011) (“Frost & Sullivan, *U.S. Mobile Backhaul Services Market*”); see also Jennifer Pigg, Yankee Group, *Wholesale Mobile Backhaul: There’s Gold in Them There Hauls*, at 4 (June 2011) (“Yankee Group, *Wholesale Mobile Backhaul*”); *October 2010 Cowen and Company Report* at 17-18.

operators “such as Charter Communications, Comcast Business, Cox Carrier Services and Time Warner Cable Business Class have become a credible threat in the wireless backhaul race.”<sup>46</sup>

Projections say cable providers’ revenues from mobile backhaul services will reach approximately \$600 million in 2012, and approach \$900 million by 2015.<sup>47</sup> Comcast – which has “increased [its] number of installed towers by about 79% since 2010”<sup>48</sup> – “anticipates the addressable backhaul market within its footprint is roughly \$1 billion.”<sup>49</sup> Analysts have found that this “[g]reater competition among vendors, as well as competing backhaul platforms, is creating downward pricing pressures for backhaul service providers; which, in turn, is impacting their revenues and profitability.”<sup>50</sup>

In sum, the high-capacity marketplace is undergoing dramatic change as a result of exploding demand and the emergence of new technologies to supply that demand. These new technologies and services act as constraints on prices for traditional special access while creating the conditions for rapid and successful entry and expansion by competitors and potential competitors of all stripes. The Commission must therefore account for these dynamic changes in its analysis.

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<sup>46</sup> Sean Buckley, FierceTelecom, *Telco BackHaul Strategies: Wireline Wholesale Carriers Feed Off the Wireless Backhaul Bonanza*, at 2 (Nov. 2011), ebook available at <http://www.zayo.com/sites/default/files/fiercetelecom-mobile-backhaul-ebook11.14.11.pdf>.

<sup>47</sup> Jeff Baumgartner, *Cable’s Cut of the Biz Services Pie To Eclipse \$7B*, Light Reading (Nov. 29, 2012), [http://www.lightreading.com/document.asp?doc\\_id=227457&site=lr\\_cable&f\\_src=lrailynewsletter](http://www.lightreading.com/document.asp?doc_id=227457&site=lr_cable&f_src=lrailynewsletter) (citing Heavy Reading Senior Analyst Alan Breznick).

<sup>48</sup> *Q1 2012 Comcast Corporation Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 050212a4767051.751 (May 2, 2012) (statement by Comcast Chairman & CEO Brian Roberts).

<sup>49</sup> *Yankee Group, Wholesale Mobile Backhaul* at 4.

<sup>50</sup> *Frost & Sullivan, U.S. Mobile Backhaul Services Market* at 6.

b. Sprint's recent experience in building out its mobile broadband network is a particularly instructive case for the need to take a forward-looking approach as the marketplace shifts from traditional TDM-based technologies to IP. It also highlights the intense and growing competition for high-capacity services.

Sprint launched its network modernization plan, Network Vision, in 2010. As part of Network Vision, Sprint is moving its wireless backhaul throughout its network away from TDM-based special access services to next-generation higher-capacity services. Sprint opened its backhaul business to competitive bids for backhaul to approximately 38,000 sites.<sup>51</sup> As a result of this competitive bidding process, Sprint has said it “will end up with ‘25 to 30 significant backhaul providers,’ that will likely be a mix of incumbent LECs, cable MSOs and alternative carriers, all of whom will be expected to deliver Ethernet predominantly over fiber for Sprint’s new multi-mode network.”<sup>52</sup> Sprint has attested that this expansion will provide it substantial “flexibility” in reducing its backhaul costs, telling investors that, while it previously was “basically a T1 organization,” it now has the “opportunity to use fiber or microwave and we choose site by site,” and, as a result, has “a very much improved cost structure.”<sup>53</sup> A Sprint executive explained to analysts that “all of [Sprint’s] towers will be Ethernet,” and “for roughly the same cost of \$1,500 a month” for three T1 lines at each tower, “you have almost 20 times the bandwidth through that location,” at approximately “100 megabits per second even though it’s

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<sup>51</sup> See Ex Parte Letter from Tara S. Emory, Skadden, Arps, Slate, Meagher & Flom LLP, Counsel to Sprint Nextel Corporation, to Marlene Dortch, FCC, WT Docket No. 12-4, at 3 (FCC filed July 12, 2012).

<sup>52</sup> Carol Wilson, *Sprint To Reveal Backhaul Contract Winners Friday*, Light Reading (Oct. 5, 2011), [http://www.lightreading.com/document.asp?doc\\_id=213050](http://www.lightreading.com/document.asp?doc_id=213050) (emphasis added).

<sup>53</sup> *Sprint 4G Strategy/Network Update – Final*, FD (Fair Disclosure) Wire, Transcript 100711a4207432.732 (Oct. 7, 2011) (statement by Sprint - Network Operations & Wholesale President Steve Elfman).

scalable to more than that.”<sup>54</sup> In this context, purveyors of traditional T1 lines cannot be said to possess meaningful market power going forward.

The bidding process for Sprint’s network evolution in Verizon’s region is consistent with the results that Sprint has reported more generally.<sup>55</sup> Verizon responded to Sprint’s Request for Quotes with pricing and availability at the sites in its region. After bidding, Sprint awarded Verizon the backhaul business at less than six percent of the sites in the Verizon incumbent footprint.<sup>56</sup> Although Verizon has no direct information about what Sprint did with the contracts and sites Verizon did not win, public reports indicate that “all cable operators are involved.”<sup>57</sup>

This experience indisputably shows that competitive intermodal alternatives for high-capacity services are available and that companies like Sprint are using them in earnest. In fact, many other companies recently have touted similar plans to move away from TDM-based special access services as demand for their high-capacity services grows.<sup>58</sup>

Further, the Sprint experience demonstrates the risk of relying too heavily on a model and on using facts from the past as inputs to that model. Model data from 2010 and 2012 would not capture the fundamental shifts going on in the marketplace, which the Sprint experience

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<sup>54</sup> *Sprint Nextel Corporation at Pacific Crest Global Leadership Technology Forum – Final*, FD (Fair Disclosure) Wire, Transcript 081312a4874232.732 (Aug. 13, 2012) (statement by Sprint VP, Strategic Programs Marty Nevshemal).

<sup>55</sup> See Mike McCormack et al., Nomura Equity Research, *Sprint Nextel Corporation: Takeaways from Meetings with Management*, at 2 (June 21, 2012) (“*Nomura Equity Research Report*”), attached to Ex Parte Letter from Donna Epps, Verizon, to Marlene Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed July 24, 2012).

<sup>56</sup> See Ex Parte Letter from Kathleen Grillo, Verizon, to Marlene Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed Sept. 12, 2012).

<sup>57</sup> *Nomura Equity Research Report* at 2.

<sup>58</sup> See Ex Parte Letter from Donna Epps, Verizon, to Marlene Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed May 2, 2012).

embodies. It is imperative that the Commission investigate what is likely to happen in the marketplace by focusing on competitive providers' plans to provide service, and their ability to provide service, even if most of that information falls outside the Commission's model.

**3. *The Commission must take into account all forms of competition, including intramodal, intermodal, and self-supply.***

The Commission has recognized that its analysis “must take account of both actual and potential competition, as well as sources of intramodal and intermodal competition.”<sup>59</sup>

Moreover, the Commission must also consider the facilities that competitors (or even customers) self-supply. For example, wireless carriers often use microwave facilities for the backhaul in their networks, and competitive fiber providers use their networks to provide a range of retail voice, video, and data services.<sup>60</sup> It is well established that this self-supply must be included in any proper competitive analysis.<sup>61</sup>

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<sup>59</sup> Notice ¶ 69 n.152.

<sup>60</sup> See, e.g., Comments of Clearwire Corporation to Second Further Notice of Proposed Rulemaking and Second Notice of Inquiry at 3, *Amendment of Part 101 of the Commission's Rules To Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and To Provide Additional Flexibility To Broadcast Auxiliary Service and Operational Fixed Microwave Licenses*, WT Docket No. 10-153 et al. (FCC filed Oct. 5, 2012) (Clearwire “uses microwave backhaul for more than 90 percent of its cell sites.”); Reply Comments of the United States Cellular Corporation at 1, *Amendment of Part 101 of the Commission's Rules To Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and To Provide Additional Flexibility To Broadcast Auxiliary Service and Operational Fixed Microwave Licenses*, WT Docket No. 10-153 et al. (FCC filed Oct. 25, 2011) (U.S. Cellular “makes extensive use of fixed microwave facilities to provide ‘backhaul’ between its base stations and switches, holding approximately 2,600 microwave licenses.”); Ericsson Press Release, *MetroPCS Selects Ericsson as Primary Microwave Backhaul Equipment Provider* (Jan. 30, 2012), <http://www.ericsson.com/news/1580968> (MetroPCS entered into a four-year agreement to use Ericsson's microwave backhaul equipment to serve MetroPCS's wireless broadband network).

<sup>61</sup> See, e.g., *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 389 (1999) (faulting the Commission for failing to consider carriers that self-provide facilities in evaluating competitive alternatives); U.S. Dep't of Justice & Federal Trade Comm'n, *Horizontal Merger Guidelines* § 1.31 (1992) (the relevant market begins with all firms that currently produce or sell in the

Following this approach, the Commission can start by comprehensively determining where competitors have deployed fiber.<sup>62</sup> It then should determine the locations where competitors are likely to extend fiber in the near term, given rising demand, as well as the locations where demand is sufficiently concentrated that it is worthwhile for suppliers to extend their networks. As the Commission has previously recognized, this potential deployment belongs in a proper competitive analysis.<sup>63</sup>

Next, the Commission should comprehensively analyze the availability of actual and potential intermodal competition. End users today consider many different intermodal competitors' high-capacity offerings to be viable alternatives to the incumbent carrier's special access services.

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relevant market, including “vertically integrated firms to the extent that such inclusion accurately reflects their competitive significance in the relevant market”); 2A Phillip E. Areeda *et al.*, *Antitrust Law* ¶ 423, at 81-82 (2d ed. 2002) (self-suppliers that can easily switch production to serve other customers must be considered part of the relevant market); *United States v. Sungard Data Sys.*, 172 F.Supp.2d 172, 186 (D.D.C. 2001); *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 424-25 (2d Cir. 1945).

<sup>62</sup> See Notice ¶ 48.

<sup>63</sup> See, e.g., *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, ¶ 62 (2005) (the Commission will examine both “actual and potential competition” that “either is present, or readily could be present.”). See also *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 Wireline Services Offering Advanced Telecommunications Capability*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, ¶ 506 (2003) (“We recognize, however, that the self-provisioning trigger discussed above identifies only the existence of actual competitive facilities serving the mass market and does not address the potential ability of competitive LECs to deploy their own switches to serve this market.”); *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, ¶ 50 (2005) (competition “is more appropriately analyzed in view of larger trends in the marketplace, rather than exclusively through the snapshot data that may quickly and predictably be rendered obsolete as th[e] market continues to evolve.”).

As shown above, for example, cable companies have made significant inroads into the two fastest growing segments of high-capacity services, business Ethernet and mobile wireless backhaul. According to analysts, cable companies' "share of the business services market continues to grow at a rate of at least \$1 billion per year and is on pace to eclipse \$7 billion in 2012."<sup>64</sup> Cable operators also are continuing to expand the business services they provide, and this growth must factor into the Commission's analysis.<sup>65</sup>

Cable companies represent two of the top eight largest Ethernet providers and each of the five largest cable operators is now in the list of the top 20. Moreover, cable companies continue to make significant investments in their capacity to provide business Ethernet services and are competing successfully for the customers of those services.<sup>66</sup> As described above, both Cox and Time Warner Cable have extensive networks that they use to provide Ethernet services

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<sup>64</sup> Jeff Baumgartner, *Cable's Cut of the Biz Services Pie To Eclipse \$7B*, Light Reading (Nov. 29, 2012), [http://www.lightreading.com/document.asp?doc\\_id=227457&site=lr\\_cable&f\\_src=lrailynewsletter](http://www.lightreading.com/document.asp?doc_id=227457&site=lr_cable&f_src=lrailynewsletter) (citing forecast by Heavy Reading).

<sup>65</sup> See, e.g., *Cable Operators See More Money in Business Services*, Communications Daily (Apr. 6, 2012) ("executives from three major U.S. cable companies [Comcast, Time Warner Cable, and Bright House Networks] said they'll keep pouring more resources into business services initiatives in 2012, after strong growth over the past several years."); *Cable Providers Push into Middle Market and Enterprise Sectors*, Communications Daily (Jan. 3, 2012) (Cox, which "became the first cable operator to reach \$1 billion in annual commercial service revenue, is shooting to hit \$2 billion by 2016," and expects to "doubl[e] its market share" with small businesses and its "wholesale carrier revenue over the next four years.").

<sup>66</sup> *Frost & Sullivan, Cable MSO Ethernet Strategy* at 5 ("To satisfy [] exploding demand for high-capacity and very high-reliability connectivity, mid-market businesses are turning to Ethernet-based solutions. As such, the cable multi-system operators (MSOs) are aggressively expanding their network reach beyond their traditional footprints, cross-country, with an extensive range of Ethernet and hybrid WAN, MAN and [mid-band Ethernet (MBE)] access solutions."); *id.* at 6 ("The MSOs began to transform their business strategy and services mix as early as a decade ago; but, until the last few years, were not competitive in the more complex, metro-WAN networking environment. However, their product sets, network reach and capabilities have evolved extensively during this time to a level competitive with the ILECs – and to the benefit of the mid-market businesses taking advantage of this situation.").

throughout their service territories. In addition, Comcast Business states that “[w]ith over 147,000 national route miles of fiber, [its] network is the largest facilities-based last mile alternative to the phone company”<sup>67</sup> and that Ethernet services are available throughout its entire cable footprint, with “gigabytes of service for [a] pretty reasonable price.”<sup>68</sup> Charter has deployed more than 55,000 route miles of fiber nationwide,<sup>69</sup> which connect to more than 5,600 buildings, and the company reports an additional “8,000 buildings located within 1,000 feet of the network.”<sup>70</sup> Cablevision’s Optimum Lightpath unit has deployed “an advanced fiber optic network extending more than 4,800 route miles, which includes approximately 263,000 miles of fiber, throughout the New York metropolitan area,” and more than 5,000 buildings on-net.<sup>71</sup> Cablevision states that it “has offered advanced Metro Ethernet services to businesses throughout the [New York/New Jersey/Connecticut] tri-state area” since 2005.<sup>72</sup>

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<sup>67</sup> Comcast, *Comcast Business Class – The Comcast Network*, [http://business.comcast.com/docs/general-docs/Network\\_Brochure.pdf?sfvrsn=0](http://business.comcast.com/docs/general-docs/Network_Brochure.pdf?sfvrsn=0).

<sup>68</sup> *Comcast Corporation at Wells Fargo Technology Media & Telecom Conference – Final*, FD (Fair Disclosure) Wire, Transcript 110712a4939421.721 (Nov. 7, 2012) (statement by Comcast Vice Chairman & CFO Michael Angelakis); *see also Frost & Sullivan, Cable MSO Ethernet Strategy* at 14 (“The company’s focus is to expand availability to more and smaller metro areas, provide dense high-speed access by capitalizing on its existing fiber and HFC networks, and national reach through interconnecting its metro networks.”).

<sup>69</sup> *Frost & Sullivan, Cable MSO Ethernet Strategy* at 13.

<sup>70</sup> Charter Business, *Carrier Solutions Connection* (Mar. 2012), <http://www.charterbusiness.com/network-partner-connection/2012/march/default.aspx>.

<sup>71</sup> Cablevision Systems Corp., Form 10-K, at 3 (SEC filed Feb. 28, 2012), <http://www.sec.gov/Archives/edgar/data/784681/000114036112011496/form10-k.htm>.

<sup>72</sup> Optimum Lightpath, *Metro Ethernet*, <https://optimumlightpath.com/metro-ethernet>.

The *Notice* asks specifically how the Commission should account for “best efforts” business class broadband services.<sup>73</sup> To be sure, ILEC special access services and the cable operators’ best-efforts business class offerings differ in several ways. But there should be no question that cable providers are marketing these broadband services as competitive alternatives to special access.<sup>74</sup> Indeed, cable companies often advertise these services as superior to ILEC special access.<sup>75</sup> So while these services differ in speed, price, whether the connections are point-to-point, and in other characteristics, cable providers are offering them as competitive alternatives. Customers, too, appear to be accepting them. Best-efforts business class broadband services therefore are an important part of an analysis of the marketplace’s contestability, and the Commission must take into account these services’ ability to constrain prices for traditional special access.

Fixed wireless also continues to thrive as an alternative to special access. Fixed wireless providers now offer retail business broadband services in areas throughout the country, and many

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<sup>73</sup> *Notice* ¶ 76.

<sup>74</sup> See Ex Parte Letter from Glenn T. Reynolds, USTelecom, to Marlene H. Dortch, FCC, WC Docket No. 05-25 (FCC filed Nov. 29, 2012); Ex Parte Letter from Glenn T. Reynolds, USTelecom, to Marlene H. Dortch, FCC, WC Docket No. 05-25 (FCC filed Dec. 3, 2012); Ex Parte Letter from Maggie McCready, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed Dec. 7, 2012).

<sup>75</sup> See, e.g., Comcast Business Class, *Comcast Business Service Offerings*, <http://business.comcast.com/docs/smb-pdfs/Comcast-Business-Service-Offerings.pdf?sfvrsn=0> (“Dramatic performance improvements over legacy WAN technologies, such as T1, Frame Relay, ATM and private lines – often at a lower cost. Comcast Business Class Ethernet delivers a new generation of speeds, ranging from 1 Mbps to 10 Gbps – critical for today’s bandwidth-intensive services like cloud computing, software-as-a-service (SaaS), online video and e-commerce.”); Cox Business, *Metro Ethernet*, <http://ww2.cox.com/business/hamptonroads/data/metro-ethernet.cox> (“Cox Metro Ethernet delivers high-speed, metro-area-wide Ethernet connectivity that allows your business to employ the latest technologies, combining voice, video and data connections. Metro Ethernet can provide a higher bandwidth value than legacy technologies such as frame relay.”).

of these providers also offer their services as wholesale inputs for other providers to offer broadband services. The Wireless Internet Service Providers Association “estimates that, in the last year alone, over 500,000 new customers have begun receiving fixed wireless broadband service from [wireless Internet service providers]” and states that “[t]his growth trend is expected to continue.”<sup>76</sup>

Today, many fixed wireless providers – including Airband, Business Only Broadband, Conterra, Clearwire/Sprint, Earthlink, Fibertech, MegaPath, TelePacific, Tower Cloud, Towerstream, Windstream (formerly PAETEC), and XO – offer fixed wireless service in areas throughout the country using spectrum in the 2.5 GHz, 5.8 GHz, 11 GHz, 18 GHz, 23-24 GHz, 28-31 GHz, and 80 GHz bands.<sup>77</sup> These providers offer high-speed connections ranging from

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<sup>76</sup> Comments of the Wireless Internet Service Providers Association at 3, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, As Amended by the Broadband Data Improvement Act*, GN Docket No. 12-228 (FCC filed Sept. 20, 2012).

<sup>77</sup> See Airband Communications, *Airband Profile* (2012), <http://www.airband.com/about-us/airband-profile/>; Business Only Broadband, *Network Overview*, [http://www.bobbroadband.com/network\\_overview.php](http://www.bobbroadband.com/network_overview.php); Conterra Broadband Services, *About Conterra*, <http://www.conterra.com/about-conterra/>; Sprint Nextel Press Release, *Sprint Launches 4G Enterprise WAN for Businesses* (June 27, 2011), [http://newsroom.sprint.com/article\\_display.cfm?article\\_id=1959](http://newsroom.sprint.com/article_display.cfm?article_id=1959); Earthlink Press Release, *EarthLink and Clearwire Announce Wholesale 4G Agreement* (Sept. 10, 2012), <http://www.earthlink.net/about/press/pressrelease.faces?id=923>; Fibertech Networks, *Wireless Backhaul*, <http://www.fibertech.com/carrier/wireless-services/wireless-backhaul/index.cfm>; MegaPath Press Release, *TelePacific Communications To Acquire Fixed Wireless Internet Service Provider Covad Wireless* (Dec. 22, 2010), <http://www.megapath.com/about/press-releases/telepacific-to-acquire-covad-wireless/>; TelePacific Communications, *Wireless Internet Access*, <http://www.telepacific.com/ext/offer/data-network/wireless-internet-access.asp>; Tower Cloud, *About Tower Cloud*, <http://towercloud.com/about-tower-cloud/>; Towerstream Press Release, *Towerstream Waives Fee for Fixed Wireless Broadband Network to Manhattan Businesses* (Nov. 1, 2012), <http://ir.towerstream.com/releasedetail.cfm?ReleaseID=737169>; Windstream Corporation, *Wireless LAN*, <http://www.windstreambusiness.com/equipment/wireless-lan>; XO Communications, *Fixed Wireless Access*, [http://www.xo.com/SiteCollectionDocuments/business-services/data-and-internet-services/Broadband\\_Wireless/Broadband\\_Wireless\\_PS.pdf](http://www.xo.com/SiteCollectionDocuments/business-services/data-and-internet-services/Broadband_Wireless/Broadband_Wireless_PS.pdf).

DS-1 to Gigabit Ethernet to OCn, both to business customers and in some cases wholesale customers.<sup>78</sup> These services are available with the features that business customers demand, such as redundancy, guaranteed 99.99% uptime, and Service Level Agreements.<sup>79</sup>

For example, Airband states that it “provides service in 17 markets” – Atlanta, Austin, Baltimore, Dallas, Des Moines, Fort Lauderdale, Fort Worth, Houston, Las Vegas, Los Angeles, Miami, Orange County, Philadelphia, Phoenix, San Antonio, San Diego, and Washington, D.C. – and “is expanding quickly.”<sup>80</sup> Conterra “provides Ethernet broadband services and high bandwidth Internet via FCC-licensed microwave links and fiber to nearly 2,000 sites.”<sup>81</sup> It “operates in 25 states and is the 6th largest holder of FCC microwave licenses in the country.”<sup>82</sup> Towerstream provides “broadband services to commercial customers and deliver[s] access over a wireless network transmitting over both regulated and unregulated radio spectrum.”<sup>83</sup> It provides

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<sup>78</sup> See, e.g., Earthlink Press Release, *EarthLink and Clearwire Announce Wholesale 4G Agreement* (Sept. 10, 2012), <http://www.earthlink.net/about/press/pressrelease.faces?id=923>; Sprint Nextel News Release, *Sprint Delivers 4G Fixed Business Access to Wholesale Customers* (Nov. 21, 2011), [http://newsroom.sprint.com/article\\_display.cfm?article\\_id=2112](http://newsroom.sprint.com/article_display.cfm?article_id=2112); Tower Cloud, *About Tower Cloud*, <http://towercloud.com/about-tower-cloud/>; TelePacific Communications, *Wireless Internet Backup Solutions to Enhance Your Business Data Protection*, <http://www.telepacific.com/offer/data-networking/wireless-internet-access/internet-backup.asp>; Towerstream Corporation, Form 10-K, at 4 (SEC filed Mar. 14, 2012), [http://www.sec.gov/Archives/edgar/data/1349437/000114420412014858/v303853\\_10k.htm](http://www.sec.gov/Archives/edgar/data/1349437/000114420412014858/v303853_10k.htm).

<sup>79</sup> See *id.*

<sup>80</sup> Airband Communications, *Airband Profile* (2012), <http://www.airband.com/about-us/airband-profile/>; Airband Communications Press Release, *Airband Communications Expands Fixed-Wireless Network to Orlando* (Jan. 10, 2013), <http://www.airband.com/press-releases/airband-communications-expands-fixed-wireless-network-to-orlando/>.

<sup>81</sup> Conterra Broadband Services, *High Speed, Low Latency Financial Exchange Connectivity* (2012), <http://www.conterra.com/low-latency.html>.

<sup>82</sup> *Id.*

<sup>83</sup> Towerstream Corp., Form 10-Q, at 13 (SEC filed Nov. 8, 2012), [http://www.sec.gov/Archives/edgar/data/1349437/000114420412060416/v325613\\_10q.htm](http://www.sec.gov/Archives/edgar/data/1349437/000114420412060416/v325613_10q.htm).

services “to businesses in 12 markets including New York City, Boston, Los Angeles, Chicago, the San Francisco Bay Area, Miami, Seattle, Dallas/Fort Worth, Philadelphia, Nashville, Las Vegas/Reno, and the greater Providence area.”<sup>84</sup>

Competitors can deploy fixed wireless connections relatively quickly and cost-effectively, which makes this technology ideal even for areas that do not necessarily have the demand to support competitive fiber. For example, Sprint has told the Commission that “by far the most cost-effective backhaul solutions, particularly in rural areas, can be provided by wireless fixed licensed point-to-point systems.”<sup>85</sup> Sprint claims that “a 100-mile wireless broadband connection would cost less than \$100,000-\$200,000 to construct.”<sup>86</sup> The Wireless Internet Service Providers Association states that: “Fixed wireless deployments are economically efficient to deploy,” with a base station that has the capacity to serve over 100 customers costing \$600 and equipment at the subscriber premises costing “well under \$200.”<sup>87</sup>

## **II. THE COMMISSION’S ANALYSIS MUST PROPERLY EVALUATE PRICING TRENDS.**

The *Notice* indicates that the Commission’s analysis will determine “where and when special access prices are just and reasonable.”<sup>88</sup> The *Notice* proposes to use “panel regressions”

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<sup>84</sup> Towerstream, *About Our Company*, <http://www.towerstream.com/Company.aspx>.

<sup>85</sup> Sprint et al., Petition for Reconsideration at 3, *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3GHz band*, ET Docket Nos. 04-186 & 02-380 (FCC filed Mar. 19, 2009).

<sup>86</sup> *Id.*

<sup>87</sup> Matt Larsen, Vistabeam and WISPA, *Broadband Capabilities Today and in the Future*, remarks before the FCC Workshop on Modernizing Universal Service into a Connect America Fund, Washington, D.C. (Apr. 27, 2011), <http://transition.fcc.gov/presentations/04272011/matt-larsen.pdf>.

<sup>88</sup> *Notice* ¶ 67.

to examine pricing trends.<sup>89</sup> Those analyses typically observe data – in this case, prices – for one or more entities at two or more points in time. The Commission notes that its analysis will attempt to control for the myriad factors that may affect prices.<sup>90</sup>

An analysis of pricing over time must account for the fact that when the Commission introduced limited pricing flexibility for special access services in 2001,<sup>91</sup> those services had been subject to artificial regulatory price constraints for long periods, including at least ten years in which special access rates were capped and subject to annual decreases, without regard to what competitive market prices might be. Then, the Commission expressly acknowledged that once the ILECs implemented pricing flexibility, special access prices might move either up or down, ultimately reaching equilibrium in a competitive market.<sup>92</sup> The Commission noted that in some cases special access prices might rise “because our rules may have required incumbent LECs to price access services below cost.”<sup>93</sup> The Commission’s analysis must take this history into account, and the Commission must be careful about the conclusions it draws from any price “increases” over time, given that baseline special access prices were artificially low for many years.

In addition, the Commission’s analysis must evaluate the prices that customers actually pay for special access under various discount plans, rather than the month-to-month rates in standard tariffs. Verizon offers many volume and term discount plans and has introduced

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<sup>89</sup> *Id.* ¶ 68.

<sup>90</sup> *Id.*

<sup>91</sup> *See Pricing Flexibility Order* ¶¶ 77-80, 141-152; *WorldCom*, 238 F.3d at 454-457.

<sup>92</sup> *See Pricing Flexibility Order* ¶¶ 11-13, 155.

<sup>93</sup> *Id.* ¶ 155.

specialized customer tariffs under pricing flexibility, providing opportunities to obtain significant discounts off of Verizon's month-to-month rates.<sup>94</sup> Verizon sells most of the special access that it provides under one of these discount plans.<sup>95</sup> As a result of these discounts, the prices that Verizon's customers pay for DS1 and DS3 services is lower, in real inflation-adjusted terms, than what customers were paying for those services a decade ago, in 2002.<sup>96</sup>

### **III. IT IS PREMATURE TO ANALYZE TERMS AND CONDITIONS FOR SPECIAL ACCESS.**

The *Notice* seeks “data and information on the terms and conditions offered by incumbent LECs for special access,” noting that “[t]he reasonableness of terms and conditions has triggered a significant amount of debate in the last two years.”<sup>97</sup>

As an initial matter, for the Commission to analyze the terms and conditions for special access before completing its analysis of the state of competition for special access would be putting the cart before the horse. As the Commission stated in the *Notice*, “[a]t this time there is insufficient evidence in the record upon which to base general or categorical conclusions as to

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<sup>94</sup> See nn.99, 100, *infra*.

<sup>95</sup> See Letter from Donna Epps, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593, Attachment B at 3 (FCC filed Aug. 16, 2010) (“Verizon Aug. 16, 2010 Ex Parte”) (“Over ninety percent of the special access revenues Verizon receives from selling special access services to carrier customers comes from discounted services purchased under Verizon’s generally available discount plans and pricing flexibility promotions and contract tariffs.”).

<sup>96</sup> See Comments of Verizon and Verizon Wireless at 8, *Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25 & RM-10593 (FCC filed Jan. 19, 2010) (“Verizon 2010 Comments”); Declaration of Harold E. (Trip) West III on Behalf of Verizon and Verizon Wireless ¶ 7, *attached to* Verizon 2010 Comments; Revised Letter from Donna Epps, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593, at 3 (FCC filed Apr. 26, 2012) (“Verizon Apr. 26, 2012 Ex Parte”), *attached to* Letter from Donna Epps, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed Apr. 26, 2012).

<sup>97</sup> *Notice* ¶¶ 91-92.

the competitiveness of the special access market.”<sup>98</sup> The specific terms and conditions on which ILECs provide special access are relevant, if at all, only if the Commission first finds that market forces are insufficient to protect consumers. Where competition is adequate to protect consumers, as it is here, the Commission need not consider the specific terms and conditions on which that competition is occurring. The Commission should not devote resources now to analyzing whether the terms and conditions of special access are reasonable.

In any event, even if the Commission were to analyze the terms and conditions on which ILECs provide special access, it would find further evidence of competition. For example, Verizon has demonstrated that it offers many different special access discount plans that provide substantial benefits to a wide range of special access purchasers.<sup>99</sup> Verizon’s entirely voluntary discount plans contain different terms and conditions to meet the needs of many different types of special access purchasers.<sup>100</sup> These plans do not restrict customers’ ability to obtain high-

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<sup>98</sup> *Notice* ¶ 69.

<sup>99</sup> *See* Letter from Maggie McCreedy, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed June 6, 2012) (“Verizon June 6, 2012 Ex Parte”); Letter from Evan T. Leo, Kellogg, Huber, Hansen, Todd, Evans & Figel, P.L.L.C., Counsel for Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed July 16, 2012) (“Verizon July 16, 2012 Ex Parte”); Letter from Donna Epps, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593, Attachment 1 at 12 (FCC filed May 2, 2012) (“Verizon May 2, 2012 Ex Parte”); Verizon Apr. 26, 2012 Ex Parte; Letter from Donna Epps, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed Mar. 27, 2012) (“Verizon Mar. 27, 2012 Ex Parte”); Letter from Maggie McCreedy, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed Sept. 6, 2011); Letter from Donna Epps, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed July 14, 2011) (“Verizon July 14, 2011 Ex Parte”); Letter from Donna Epps, Verizon, to Marlene H. Dortch, FCC, WC Docket No. 05-25 & RM-10593 (FCC filed Feb. 28, 2011) (“Verizon Feb. 28, 2011 Ex Parte”); Verizon Aug. 16, 2010 Ex Parte.

<sup>100</sup> *See* Verizon July 16, 2012 Ex Parte at 2-6; Verizon June 6, 2012 Ex Parte at 1-4; Verizon Apr. 26, 2012 Ex Parte at 1; Verizon Mar. 27, 2012 Ex Parte at 3; Verizon July 14, 2011 Ex Parte at 1-2; Verizon Feb. 28, 2011 Ex Parte at 3; Verizon Aug. 16, 2010 Ex Parte at 2-3; Letter from Donna Epps, Verizon, to Marlene Dortch, FCC, WC Docket No. 05-25, Attachment at 3 (Oct. 27, 2009) (“Verizon Oct. 27, 2009 Ex Parte”).

capacity services from Verizon's competitors or through self-supply.<sup>101</sup> In fact, customers who participate in Verizon's discount plans and pricing flexibility contracts may and in fact do obtain high-capacity services from several different providers as well as through self-supply without penalty.<sup>102</sup> These special access discount plans benefit both Verizon and customers because they reflect the economic efficiencies associated with the additional predictability and certainty they provide.<sup>103</sup> Customers can choose from term-only or term-and-volume plans; both types of plans offer comparable discounts.

Verizon's plans do not require customers to enroll any particular percentage of their total purchases from all sources and providers in the plan. Customers determine how many circuits they wish to purchase from Verizon under these plans, and in exchange for their volume commitments, customers receive added flexibility. Although some parties have complained that Verizon offers circuit portability only in connection with plans that require a volume commitment, not term-only plans, this is an example of parties seeking discounts without being willing to make the commitments that make these discounts possible. As Verizon has explained,

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<sup>101</sup> See Verizon July 16, 2012 Ex Parte at 2; Verizon May 2, 2012 Ex Parte, Attachment 1 at 12; Verizon Mar. 27, 2012 Ex Parte at 3, 9; Verizon July 14, 2011 Ex Parte at 1-2 & Exhibit A; Verizon Feb. 28, 2011 Ex Parte at 2-3; Verizon Aug. 16, 2010 Ex Parte at 2, 7 & Attachment A; Verizon Oct. 27, 2009 Ex Parte Letter, Attachment at 3.

<sup>102</sup> See, e.g., Transcript of Bloomberg's Investor Day Conference, Day 2 (Mar. 18, 2010) (T-Mobile USA CFO Brian Kirkpatrick: "over 40% of the cell sites we have today in 3G, are deployed now with alternative backhaul providers meaning, not with traditional landline [Verizon] or AT&T."); Carol Wilson, *Sprint To Reveal Backhaul Contract Winners Friday*, Light Reading (Oct. 5, 2011), [http://www.lightreading.com/document.asp?doc\\_id=213050](http://www.lightreading.com/document.asp?doc_id=213050) ("Also, [Sprint VP of Roaming and Access Planning Paul Schieber] said Sprint will end up with '25 to 30 significant backhaul providers' that will likely be a mix of incumbent LECs, cable MSOs and alternative carriers, all of whom will be expected to deliver Ethernet predominantly over fiber for Sprint's new multi-mode network, which will combine the CDMA, IDEN and WiMax networks it uses today.").

<sup>103</sup> See Verizon Mar. 27, 2012 Ex Parte; Declaration of Michael D. Topper on Behalf of Verizon and Verizon Wireless ¶¶ 62-70, attached to Verizon 2010 Comments.

the added efficiencies associated with a customer making a volume commitment on top of a term commitment – in terms of greater certainty and predictability – are what make it possible for Verizon to offer additional benefits such as circuit portability.<sup>104</sup>

Nor are Verizon’s plans “lock up plans,” contrary to what competing carriers have claimed. Verizon’s plans do not base discounts on a percentage of the customer’s historic demand. When a customer’s plan expires, the customer has many options, including migrating all of its circuits away from Verizon. If the customer decides to keep some or all of its circuits with Verizon, it may renew its existing plan or choose a different plan. A customer in a volume-and-term plan may, at the end of the term, also choose to renew that plan, or enter into a different volume-and-term plan (*e.g.*, the NDP), but at a lower volume. Discounts are not inextricably linked to a customer’s past purchases.

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<sup>104</sup> Verizon Mar. 27, 2012 Ex Parte at 7-8; Verizon June 6, 2012 Ex Parte at 3.

Respectfully submitted,

/s/ Curtis L. Groves

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