

Written Statement Of
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On Behalf of COMPTTEL
United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Communications and Technology
Hearing on
“The Evolution of Wired Communications Networks”
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Chairman Walden, Chairman Upton, Ranking Member Eshoo, Ranking Member Waxman:

Thank you for the opportunity to appear before the Subcommittee today.

I am Mark Iannuzzi, founder and president of TelNet Worldwide, Inc., a competitive facilities-based telecommunications and broadband provider headquartered in Troy, Michigan, and proud to serve Chairman Upton’s offices in Kalamazoo and St. Joseph/Benton Harbor. We offer a complete range of integrated communications services to the small and medium-sized business market, including voice and data services, such as enhanced Voice over Internet Protocol (VoIP) applications and hosted Internet Protocol (IP) solutions and applications. Today, I am appearing on behalf of COMPTTEL, the competitive communications association.

COMPTTEL started more than 30 years ago and today, the association has more than 200 members, including local competitors, broadband providers, wireless carriers, and cloud service providers, as well as suppliers and professional partners. COMPTTEL’s membership is diverse. Nearly two-thirds of COMPTTEL’s members are small and medium-sized businesses (“SMBs”), a majority of which have \$10 million or less in revenue and fewer than 100 employees. We also have a number of large national companies with thousands of employees. COMPTTEL member companies utilize private investment to drive technological innovation and create economic growth with their competitive broadband, voice, video, Internet, data and other advanced services.

Members of the competitive industry continue to be the entrepreneurial innovators. They were the first to deploy DSL in the mid-1990s. And, during the last decade, they have been the first to deploy next-generation, IP-based managed networks that utilize copper, fiber, and wireless technologies. Whether COMPTTEL members are helping businesses meet their increasing bandwidth needs by providing Ethernet services, saving small businesses thousands of dollars each month in IT costs by offering cloud-based solutions, or enabling telemedicine by providing telecommunications services to rural health care facilities, they are the companies fostering innovation, investing in new facilities to reach their customers, and creating jobs across the United States.

COMPTTEL members are largely running and growing their businesses with private investment and very little, if any, support from federal programs. But it is important to emphasize that the key element that allows COMPTTEL members to offer these services is the wireline network. Wireline networks are, and will continue to be, an essential component of the communications marketplace for the foreseeable future. Wireline remains the communications medium of choice for small, medium, and large businesses, as well as a significant segment of the consumer market.

I would like to provide just a brief background on myself. I am a product of the Detroit Public School system and after earning an engineering degree at the University of Arizona, I returned to Michigan and teamed up with a handful of colleagues in a start-up company to develop revolutionary CAD/CAM software. During this endeavor I noticed that SMBs were not able to obtain the types of telecommunications services that were both affordable and enabled their businesses to grow. Understanding that a small business service provider is likely the best at knowing what small businesses need, I formed TelNet in 1998 with my brother to address this market need. TelNet had a humble beginning out of the basement of my home. Today TelNet has invested more than \$100 million into Michigan, providing career oriented jobs to our 105 associates, helped usher in numerous business start-ups and sustained even more businesses. Among our accomplishments is that we built the first network to integrate the vast majority of the state of Michigan – more than AT&T-MI and Verizon-MI combined.

I am pleased to be able to sit before you today and discuss the building blocks for effective, facilities-based competition in the United States. The solid foundation that was built by this legislative body in the Telecommunications Act of 1996 must remain intact during the

transition to IP technologies to ensure that competition will continue to flourish and benefit consumers. I will spend my time focusing on several critical policies my company and COMPTEL's members believe must be addressed by the FCC. This testimony can be summarized into three key points:

- American businesses, particularly SMBs, benefit from the investment and innovation driven by competitive carriers in the business broadband market.
- Last-mile access and interconnection policies remain the crucial building blocks for a free, functioning competitive market, regardless of the technology.
- Businesses in the United States can continue to benefit from innovative, dedicated broadband services both during and after the IP transition, if the FCC updates its last-mile access and interconnection policies.

American Businesses are Enjoying the Benefits of the Investment and Innovation Driven by Competitive Carriers in the Business Broadband Market

I know firsthand what SMBs lacked before starting TelNet and what they continue to need to grow and to provide their goods and services. These businesses demand reliable, dedicated and high-quality broadband voice and data services. Services that are delivered over managed networks—not the Internet. Many of the customers we serve, such as retail chains, banks, hospitals and universities, have multiple locations and require innovative “end-to-end” solutions that fit their individual needs, as opposed to a generic, “one-size-fits-all” approach. For example, they need services to reliably and securely transfer large amounts of data between their multiple locations (*e.g.*, among their retail stores, their bank branches or their campuses). Importantly, “best efforts” Internet access services marketed to residential customers are not a substitute for the dedicated business broadband services demanded by business customers of all sizes today.

To meet this demand, competitive carriers, including COMPTEL's members, are serving businesses of all sizes, in all industries, all across America. They have made substantial investments in the telecom industry and in the provision of business broadband services in particular. Indeed, competitive carriers have invested billions of dollars in state-of-the-art network infrastructure and own millions of miles of fiber. In 2008, competitive carriers, along with cable companies, spent almost \$17 billion—nearly 40 percent of the total wireline

investments in the United States. By 2012, these carriers increased their investments to 43 percent of total wireline expenditures.¹

The services that American businesses need to compete in the today's economy have been and are being developed as a result of capital investment by competitive carriers. And through their investment, competitive carriers have driven innovation in the business broadband market. They were among the first to develop many of the innovative, "must have" services that businesses use today, including "VoIP" services, Ethernet services, and cloud services. Competitive carriers have been constructing their own fiber networks wherever possible, but they also have utilized available copper to provide innovative business broadband services. For instance, competitive carriers invested in their own network equipment to bring game-changing Ethernet-over-copper services to SMBs in the many areas of the country where fiber is not available. These high-capacity broadband services allow SMBs to cost-effectively realize many of the same efficiencies of Ethernet technology as larger enterprise customers using Ethernet services provisioned over fiber.

Moreover, businesses want a choice in providers. Competitive carriers offer that choice. They deliver to businesses an alternative to the products and pricing offered by dominant incumbent carriers, such as AT&T and Verizon. As I mentioned above, competitive carriers also provide solutions tailored to the needs of SMBs, a niche often neglected by incumbents. For example, competitive carriers provide cloud services that give SMBs access to virtual systems that can be easily upgraded and expanded, unlike conventional IT resources that are tied to specific hardware. Using cloud services, SMBs can free themselves from allocating time and resources to IT maintenance and focus on their core business strengths.

In addition, SMBs benefit from customer service provided by competitive carriers, which is designed to meet their unique needs. For example, TelNet and other competitive carriers provide SMBs with personalized sales consultations, 24/7 service monitoring and support, and education about how to leverage the efficiencies of IP and packetized technologies and lower their IT costs. These are among the reasons that competitive carriers are frequently recognized

¹ See Susan M. Gately and Helen E. Golding, S.M. Gately Consulting LLC, *The Benefits of a Competitive Business Broadband Market*, at 16 (April 2013), available at <http://thebroadbandcoalition.com/storage/benefits-of-broadband-competition.pdf> ("The Benefits of a Competitive Business Broadband Market").

in the industry for their excellent customer service to SMBs in addition to larger enterprise customers.²

The investment, innovation, and competitive choice provided by competitive carriers has, in turn, spurred investment in broadband deployment by incumbent carriers, while increasing adoption of broadband by business customers. For example, following the introduction of Ethernet services provisioned over fiber and copper by competitive carriers to businesses of all sizes, incumbent carriers responded with their own Ethernet offerings.

This competition in the business broadband market has led to tremendous growth in the telecom industry. Economists have found that competition causes both competitive carriers and incumbents to increase investment, employ more workers and foster innovation in new technologies.³ Importantly, this competition also benefits the economy as a whole. In particular, the services offered by competitive carriers enable American businesses—particularly the SMBs that are the growth engines of our economy—to boost productivity, reduce costs and focus on creating jobs.

Competition in the Business Broadband Market Has Been Made Possible by the Last-Mile Access and Interconnection Provisions of the Communications Act

The virtuous cycle of competition, investment and innovation in today’s business broadband market has been made possible by several key provisions of the Communications Act and the bipartisan 1996 amendments to the Act.

First, the Act requires incumbents to provide competitive carriers with access to “last-mile” connections to homes and businesses on reasonable rates, terms and conditions.⁴ This last-mile access requirement is critical to competitive choice in the business broadband market for several reasons. To begin with, by virtue of their historical monopoly, the large incumbents control the only physical connections to the vast majority of business customer locations in the country. In addition, while competitive carriers have invested billions of dollars in replicating

² The Broadband Coalition, *Broadband Innovators: Driving Small Business Forward*, at 5, available at <http://thebroadbandcoalition.com/storage/images/Driving-Small-Business-Forward.pdf>.

³ See *The Benefits of a Competitive Business Broadband Market* at iv.

⁴ 47 U.S.C. §§ 251(c)(3), 201(b), 202(a).

these last-mile connections wherever possible,⁵ it is frequently uneconomic to do so because of the steep costs associated with construction of last-mile connections.⁶ Thus, in most cases, in order for a competitive carrier to offer broadband services to a business, the carrier must have access to the last-mile connection to that business or they will be left with only one provider (the large incumbent) to serve them.

Second, the Act requires incumbents to (1) connect their networks with the networks of other carriers at any technically feasible point for the purpose of exchanging voice calls; and (2) provide such interconnection on reasonable rates, terms, and conditions.⁷ This interconnection requirement is also crucial to ensuring competition. In order to attract customers, a provider of voice services must be able to interconnect its network with those of other providers so that its customers can make calls to and receive calls from any other providers' customers. However, as the FCC has recognized, incumbent carriers have no economic incentive to voluntarily interconnect with competitive carriers.⁸ Because incumbent carriers continue to have

⁵ Even though competitors have invested billions of dollars, the FCC, the Department of Justice ("DOJ"), and the Government Accountability Office ("GAO") have found that competitive carriers have constructed their own fiber last-mile connections to only a small percentage of commercial buildings in the United States. *See* Petition of Ad Hoc Telecommunications Users Committee, BT Americas, Cbeyond, Computer & Communications Industry Association, EarthLink, MegaPath, Sprint Nextel, and tw telecom to Reverse Forbearance from Dominant Carrier Regulation of Incumbent LECs' Non-TDM-based Special Access Services, WC Dkt. No. 05-25 & RM-10593, at 42-44 (filed Nov. 2, 2012) ("Competitive Carriers' Petition to Reverse Forbearance") (citing FCC, DOJ, and GAO findings).

⁶ For example, the costs of obtaining rights-of way-and digging up streets often far exceed the revenues that can be earned from serving business customer locations using those connections.

⁷ 47 U.S.C. § 251(c)(2).

⁸ *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and CMRS Providers*, First Report and Order, 11 FCC Rcd. 15499, ¶ 55 (1996). This is because of so-called "network effects." "Network effects arise when the value of a product increases with the number of customers who purchase it." *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd. 17663, ¶ 1336 (2011). For instance, the value of a subscriber's telephone service increases as the number of other people the subscriber can reach using that service increases. And, "[i]f the attractiveness of a [telephone or other communications] network increases as it enlarges, consumers will tend to choose the larger network, which in turn will make it even larger and even more attractive." *Network Effects in Telecommunications Mergers MCI WorldCom Merger: Protecting the Future of the Internet*, Address by Constance K.

substantially bigger voice subscriber bases than virtually any of their competitors—they do not need to interconnect with competitors nearly as much as competitors need to interconnect with them. It follows that the interconnection mandate is still needed to promote a competitive marketplace.

**To Promote Continued Competition, Innovation and Investment in the Business
Broadband Market, the FCC Must Promptly Update its Last-Mile Access and
Interconnection Policies**

Importantly, both the last-mile access and interconnection provisions of the Act are “technology neutral.” That is, the terms of the statute make *no distinction* between legacy and new technologies. For example, this is why the FCC recognized back in 1998 that “the interconnection obligations set forth in Section 251(c)(2) of the Act apply to packet-switched services.”⁹ The FCC held that “[n]othing in the statute or legislative history indicates that [Section 251(c)] was intended to apply only to existing technology.”¹⁰ The agency further noted that “Congress was well aware of . . . packet-switched services in 1996, and the statutory terms do not include any exemption for those services.”¹¹

While the Act is technology neutral, competitive carriers will lose last-mile access and interconnection rights as companies transition from using legacy technology (known as “TDM-based” technology) to IP and packetized technologies in their networks. This is for two reasons. First, the FCC’s last-mile policies are not technology neutral. The FCC only requires last-mile access for connections that use legacy, TDM-based technology. The FCC does not apply the pro-competitive last-mile access provisions of the Act to connections that use newer, more

Robinson, Director of Operations and Merger Enforcement, DOJ Antitrust Division, before the Practising Law Institute, at 2 (Aug. 23, 1999), *available at* <http://www.justice.gov/atr/public/speeches/3889.pdf> (“*DOJ Network Effects in Telecommunications Mergers Address*”).

⁹ See *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order on Remand, 15 FCC Rcd. 385, ¶ 22 (1999), *remanded on other grounds*, *WorldCom v. FCC*, 246 F.3d 690 (D.C. Cir. 2001).

¹⁰ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd. 24011, ¶ 49 (1998).

¹¹ *Id.*

efficient packetized technology, such as Ethernet technology. Accordingly, as incumbents replace their legacy TDM-based technology with IP technology, competitive carriers will lose access to the last-mile connections that have enabled them to push deployment of innovative business broadband services to American businesses.

In addition, the FCC has so far failed to offer clear guidance confirming that the interconnection requirement in Section 251(c)(2) of the Act applies to IP interconnection.¹² As incumbents transition their networks to packetized technology, competitors risk losing access to interconnection on reasonable rates, terms and conditions. This is because, as discussed further below, incumbents have interpreted the FCC's interconnection policies to apply only to the exchange of traditional TDM-based voice calls, not VoIP calls.

Thus, absent FCC action, the last-mile access and interconnection policies that have made competition in the business broadband market possible will be in jeopardy. The real-world consequences of such inaction in the face of the IP transition could be disastrous for customers and competition. Hundreds of thousands of American businesses could lose their business broadband provider, and in turn, lose the high-quality, competitively priced and innovative broadband solutions that they have come to rely on to compete in the global economy. In addition, there could be a resulting loss of as many as 300,000 existing jobs and a reduction of \$30 billion in capital spending in the telecom industry.¹³

In order to prevent this outcome, the FCC should promote continued competition in the business broadband market by updating and enforcing its last-mile access and interconnection policies on a technology-neutral basis. Specifically, the FCC should take three steps.

First, the FCC should update its last-mile access policies to ensure that competitive carriers can obtain access to last-mile connections that use packetized technology on reasonable rates, terms and conditions.

¹² This is despite the fact that the agency has had a full record on this issue for almost two years, and its own Technology Advisory Council has advised it to settle this issue in order to advance the IP transition in the United States. *See* Federal Communications Commission Technological Advisory Council, TAC Memo—VoIP Interconnection, at 2-3 (2012), *available at* <http://transition.fcc.gov/bureaus/oet/tac/tacdocs/meeting92412/VoIP-Interconnection-TAC-Memo-9-24-12.pdf>.

¹³ *See The Benefits of a Competitive Business Broadband Market* at iv.

Second, until the FCC updates its last-mile access policies, the agency should adopt rules that preserve the copper infrastructure that is no longer being used by incumbents. Competitive carriers have been leveraging existing copper networks well beyond what was conceivable a decade ago to provide affordable and innovative broadband-over-copper services to businesses of all sizes. These cutting-edge broadband services include high-bandwidth, low-cost Ethernet services at speeds of up to 100 Mbps; services that would not likely be offered by the large incumbents.

Third, the FCC should affirm that the interconnection obligations in Section 251(c)(2) of the Act apply to interconnection for the exchange of voice calls, regardless of the technology (*e.g.*, VoIP technology) used to make and receive such calls.

There is no doubt that the FCC can take these actions. The agency has the authority to do so because, as discussed, the Act is designed to promote competition in the marketplace and is technology neutral. In addition, the FCC has received substantial input from interested parties and developed significant records in the relevant rulemaking proceedings on last-mile access and interconnection. Furthermore, the FCC has recently begun the process of gathering the data it believes are necessary to reform its last-mile access policies.

Last-Mile Access and Interconnection Policies are Still Needed to Ensure Competition in the Business Broadband Market Today

The largest incumbent carriers and their supporters have argued that the ongoing transition from TDM-based technology to IP and packetized technologies obviates the need for last-mile access and interconnection policies. As discussed below, this is simply not true.

First, despite changes in technology, last-mile access requirements are still needed to ensure competition in the business broadband market today because large incumbents maintain an extremely high share of the last-mile connections to businesses.¹⁴ As discussed above, competitive carriers still face extensive economic and operational barriers to constructing their own last-mile connections. Indeed, the FCC found in 2010 that there is “nothing . . . to indicate that, in the years since the passage of the 1996 Act, these barriers have been lowered for

¹⁴ See Competitive Carriers’ Petition to Reverse Forbearance at 45-46 (citing analysis of data submitted by incumbent carriers and competitive carriers to the FCC in 2011).

competitive [carriers].”¹⁵ And, importantly, *these barriers exist regardless of whether the services provided over the connections utilize legacy technologies or newer IP and packetized technologies.*

The FCC also has long held that control over “bottleneck facilities,” such as last-mile connections, is *prima facie* evidence of market power¹⁶ and incumbents have repeatedly exploited that market power. Just two weeks ago, AT&T notified its wholesale customers (*i.e.*, competitive carriers with whom AT&T competes in the downstream retail market for business broadband services) that it will effectively be increasing rates for so-called DS1 and DS3 last-mile inputs in November 2013.¹⁷ AT&T and other incumbents may seek to impose such unilateral price increases on competitive carriers because competitive carriers have few, if any, alternative suppliers of last-mile connections.

Moreover, the continuing need for last-mile access requirements is not obviated by purportedly high levels of competition among incumbents, cable companies and wireless companies in the residential market for phone, video and Internet access services. The needs of business and residential customers are very different. In particular, businesses need much more robust, reliable and secure wireline connections than those that are generally delivered via “best efforts” services marketed to residential customers. And, there is little hope for meaningful competition in the provision of business broadband services without the presence of competitive carriers in the market. Cable companies originally built their networks to serve residential customers, and so far have not been major players in rolling out robust business broadband offerings. According to a recent JP Morgan Chase analyst report, in the fourth quarter of 2012, AT&T and Verizon together earned more than 11 times as many revenues from business services

¹⁵ *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, 25 FCC Rcd. 8622, ¶ 84 (2010) (“*Phoenix Order*”); *see also id.* ¶ 90.

¹⁶ *See Phoenix Order* ¶ 5 (citing *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, First Report and Order, 85 FCC 2d 1, ¶ 58 (1980)).

¹⁷ *See* AT&T Accessible Letter (dated Oct. 10, 2013), *available at* https://primeaccess.att.com/access_letters/view.cfm?CPSWorkplace/getContent?objectStoreName=Accessible...Letters&objectType=document&guestid=P8guest&id={179EF01D-73DF-4965-954F-25C822B68B9B}.

(*i.e.*, \$13.5 billion) than the two largest cable companies, Comcast and Time Warner Cable (*i.e.*, \$1.2 billion). Even if cable companies' business broadband offerings become more widespread, the best case scenario for American businesses in a market without competitive carriers is a duopoly. Businesses would have only two providers to choose from—the incumbent telephone carrier and the incumbent cable company in their area. As the FCC has found, prices are likely to be higher in such markets.

Second, notwithstanding changes in technology, interconnection requirements also remain necessary today. As discussed earlier, large incumbents still have no rational incentive to voluntarily interconnect their networks with those of competitors. Just as in 1996, the size of a carrier's subscriber base is still the most important determinant of its leverage in interconnection negotiations and its willingness to interconnect with other carriers.¹⁸ The resulting market power over interconnection persists, regardless of whether a competitive carrier seeks to interconnect using legacy TDM-based technology or newer IP technology. This is evidenced by the incumbents' refusal to negotiate interconnection agreements with competitive carriers. For example, AT&T has not interconnected via IP with a single competitive carrier for the exchange of voice calls. And Verizon has only agreed to establish such interconnection with one incumbent cable provider (*i.e.*, Comcast), which has a very large subscriber base. By contrast,

¹⁸ Large incumbent carriers, such as AT&T and Verizon, still have far more voice subscribers than competitive carriers. This point can be illustrated by measuring the value of a large incumbent LEC's network relative to that of a competitor. Under one such measure (known as "Metcalfe's law"), the relative value of a network is proportional to the square of the number of subscribers served by the network. *See* Michael Kende, FCC Office of Plans and Policy, *The Digital Handshake: Connecting Internet Backbones*, OPP Working Paper No. 32, at 3 n.5 (Sept. 2000), available at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf ("*The Digital Handshake*"). For example, AT&T provides approximately 122.9 million total voice connections, while Sprint (itself one of the largest providers of voice services in the country) provides approximately 53.6 million total voice connections. *See* Sprint Corp., SEC Form 8-K, Exh. 99.1, 99.2 (filed July 30, 2013); *see also* AT&T Inc., SEC Form 8-K, Items 8.01, 9.01 (filed July 24, 2013). (This total includes 92.7 million wireless connections (excluding data-centric devices such as tablets), 26.8 million switched access lines, and 3.4 million U-Verse VoIP connections. *See id.*). Based on these totals, Metcalfe's law yields the conclusion that AT&T's voice network is more than five times more valuable than Sprint's voice network. Therefore, it is not surprising that while "Sprint currently has IP interconnection agreements with 12 major carriers," it "has yet to obtain IP-to-IP interconnection for voice traffic from any of the major ILECs," including AT&T. *See* Comments of Sprint, GN Dkt. No. 13-5, at 6-7 (filed July 8, 2013) ("Sprint July 8, 2013 Comments").

competitive carriers have established IP interconnection with each other. For instance, Sprint currently has IP interconnection agreements with 12 major non-incumbent carriers.”¹⁹ Similarly, tw telecom has entered into five IP interconnection agreements with non-incumbent carriers. But competitive carriers also need to establish these agreements with incumbent telephone carriers, and that outcome can only be assured if the requirements of Section 251(c)(2) apply to interconnection in IP.

While some incumbents claim that voluntary interconnection agreements for the exchange of VoIP traffic will develop through market forces in the same way that voluntary interconnection agreements for the exchange of “best efforts” Internet traffic have developed, there are several reasons why this prediction will not come true. To begin with, competitive conditions in the Internet backbone market are very different from those in the voice market. The providers in the Internet backbone market consistently have had rational incentives to voluntarily enter into interconnection agreements with each other. As the DOJ found, initially, “no single backbone provider reached a disproportionate amount of destinations on the Internet relative to other major players” and “[t]here was a rough equality, with each backbone provider depending on the other.”²⁰ And today, the large volume and explosive growth of “best efforts” public Internet traffic has attracted the entry of many large competitors in the Internet backbone market. This has yielded fierce competition and the absence of market failure for interconnection—unlike in the voice market today, which is still dominated by the large incumbent carriers, such as AT&T and Verizon.

Moreover, the VoIP calls that are made by business broadband customers using reliable, higher quality “managed VoIP” service do not travel over the public Internet and cannot be exchanged over the many Internet backbone networks that are used to exchange lower quality “best efforts” public Internet traffic.²¹ Accordingly, it will be harder for competitive carriers

¹⁹ See Sprint July 8, 2013 Comments at 6.

²⁰ *DOJ Network Effects in Telecommunications Mergers Address* at 12. For this reason, the DOJ took action in 1998 to prevent increased concentration in the Internet backbone market precisely because provider’s incentives to interconnect would change. See *id.*

²¹ Indeed, the VoIP services that AT&T and Verizon provide to their own customers are delivered over managed networks and do not travel over the public Internet (*i.e.*, they are not “over-the-top” VoIP services). Both carriers clearly make this point in their marketing materials. See, e.g., Verizon, *FiOS Digital Voice: Here’s How It Works*, June 3, 2010, available at

providing the managed VoIP services demanded by businesses today to avoid reliance on direct interconnection with the likes of AT&T and Verizon.²²

Updating the FCC's Last-Mile Access and Interconnection Policies Will Yield Tremendous Benefits for the Telecom Sector and America's Businesses

Congress should urge the FCC to take the steps described above and update the agency's last-mile access and interconnection policies. And Congress should urge the FCC to take these actions as soon as possible. Economists have found that these and other actions that promote competition in the business broadband market will likely yield huge benefits in the form of increased investment and job creation. In fact, a recent study shows that updating the FCC's policies to promote competition during and after the IP transition will result in as many as 650,000 new jobs and an additional \$184 billion in capital investment in the telecom industry over the next five years.²³ Moreover, increased competition in the business broadband market will have positive ripple effects throughout the economy. In particular, it will lead to lower prices, higher speeds, and accelerated innovation for America's businesses and consumers.

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Thank you for allowing me the opportunity to discuss these issues with you. I look forward to your questions.

<http://newscenter2.verizon.com/press-releases/verizon/2010/fios-digital-voice-heres.html>
(explaining that Verizon's FiOS Digital Voice service uses "Verizon's private IP-based network" and "does not ever touch the public Internet").

²² It is also worth pointing out that because managed VoIP traffic does not traverse the public Internet, there is absolutely no danger that IP interconnection requirements will lead to regulation of the Internet, as the largest incumbents have claimed.

²³ *The Benefits of a Competitive Business Broadband Market* at ii.