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

In the Matter of IP-Enabled Services	WC Docket No. 04-36
In the Matter of Petition of SBC Communications Inc. for Forbearance Under 47 U.S.C. § 160 from Application of Title II Common Carrier Regulation to "IP Platform Services"	WC Docket No. 04-29

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COMMENTS OF THE VERIZON TELEPHONE COMPANIES[1]

I. INTRODUCTION AND SUMMARY

In order to encourage the investment and innovation necessary to drive the continued development of IP-enabled services, the Commission should take concrete steps to ensure that IP-enabled services are not subject to traditional forms of economic regulation. Through a "light touch" regulatory approach – relying on competition and imposing discrete requirements only when necessary to support specific policy objectives – the Commission has the opportunity in this proceeding to create a truly forward-looking framework that will deliver to consumers the revolutionary transformations that this new technology promises.

Technology has changed the telecommunications industry forever. In its place has begun to emerge a "broadband industry" made up of new, extraordinarily fast networks that can deliver

[1] The Verizon telephone companies ("Verizon") are the companies affiliated with Verizon Communications Inc. that are listed in Exhibit B to these Comments.

video, data, and voice in entirely new ways. Today's "first-generation" broadband connections – whether provided over digital subscriber lines or coaxial cable – are just the first step. In the near future genuine high-speed, multimegabit networks will emerge that will enable two-way, multimedia capabilities, revolutionizing commerce, education, and health care.

With the emergence of the Internet and the protocol that interconnects this network of networks, consumers have more options than ever. Providers of these services no longer need to own the pipeline to offer these services to customers; all they need to do is put their application and content on the Internet, and customers can reach the service over their broadband connections. This represents a completely new challenge to the traditional definition of communications services.

The Commission faces a critical policy decision – whether to force the new technology to fit the regulatory assumptions and categories of the past or whether to allow competition in the various markets to create a forward-looking framework that rewards the investment, innovation and risk-taking that have always been at the heart of technology-driven industries. The Commission has recognized that "changes wrought by the rise of IP-enabled communications promise to be revolutionary."[2]

The Commission should refrain from applying traditional economic regulation to IP-enabled services. As both the Commission and courts have recognized, broadband services are already highly competitive. A myriad of IP-enabled services. particularly voice over Internet protocol ("VoIP"), that ride on this competitive infrastructure are already being offered using various technologies by a large number of providers – including cable operators (such as

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[2] Notice of Proposed Rulemaking, *IP-Enabled Services*, CC Docket No. 04-36, FCC 04-28, ¶ 5 (FCC Mar. 10, 2004) ("*NPRM*").

Comcast and Cox Communications), traditional CLECs and IXCs (such as AT&T), and new competitors (such as Vonage and pulver.com ("Pulver")). These services are fully competitive with one another and with traditional wireline services. Given this level of competition, there is simply no reason for the Commission to resort to economic regulation. Consumers are better served and better protected by competition.

Moreover, allowing IP-enabled services to continue to develop without economic regulation will promote investment and job growth and will benefit consumers through greater innovation, true product differentiation, and individual choice. The competition made possible through this new technology will give rise to additional innovations that will, in turn, increase and enhance further competition. The Commission should not permit economic regulation to interfere with that process. Specifically, the Commission should not impose any of its *Computer Inquiry* requirements on these services, and it should treat all providers of these highly competitive services as "non-dominant." The Commission should also forbear from applying the statutory and regulatory requirements otherwise applicable to Title II services.

In order to ensure that competition flourishes and provides the full-range of consumer benefits, the Commission must apply the same set of rules to all providers of IP-enabled services regardless of the underlying technology used by the provider. Indeed, the Commission's commitment to competitive and technological neutrality demands that IP-enabled services be treated the same whether provided by a telephone company, a cable company, a wireless company, a satellite company, a software company, a content company, or other company. This does not mean that the Commission should impose new regulatory burdens on these providers. Instead, the Commission should adopt a forward-looking, market-based policy framework for *all* competitors – one that puts Verizon on the same footing as other providers. The Commission

should reject any regulatory approach – including MCI's so-called "layers framework" – that presumes a lack of competition in the provision of mass-market and enterprise broadband services that would result in inappropriate economic regulation at the "physical layer" of the IP architecture.

It is also critical for the Commission to declare that all IP-enabled services are interstate services subject to *exclusive* federal jurisdiction. With respect to the Internet (over which many IP-enabled services will travel), federal authority is "preeminent," and Congress has already directed that the Internet remain free of regulation. Moreover, IP packets that are routed throughout a global network with multiple access points simply defy jurisdictional boundaries. This is particularly true with respect to VoIP telephony services, where telephone numbers may not be associated with a particular geographic location, and the party at the IP end of the call could be located anywhere there is a broadband connection. Under such circumstances, it is not practical to separate the service into interstate and intrastate components. A finding that IP-enabled services are jurisdictionally interstate will spur their deployment by preventing the development of a patchwork of inconsistent and potentially burdensome state regulations.

Providers of IP-enabled services should pay access charges whenever they use the public switched telephone network ("PSTN") to originate or terminate a call. While the Commission has provided a narrow exemption from access charges for Internet service providers ("ISPs") when using the PSTN to receive calls from their customers, that exemption has no application when a VoIP provider uses the PSTN in the same manner as a traditional interexchange carriers ("IXC") – to originate and terminate interstate calls. The cost of the PSTN should be borne equitably among those that use it in similar ways.

Finally, some minimal regulation of VoIP services is necessary to realize certain policy goals. *First*, all VoIP providers, including network and non-network providers, must comply with the requirements of the Communications Assistance for Law Enforcement Act. Any other framework would allow users to avoid surveillance simply by switching to VoIP services. *Second*, all VoIP customers should have access to basic 911 services, while access to enhanced 911 ("E911") services should await the industry's development of standards and solutions for VoIP E911 functionality. *Third*, the universal service fund should be adequately supported through contributions from all providers of voice communications, including VoIP providers. Adopting a competitively neutral contribution scheme that treats all providers of VoIP equally, regardless of the technology used, will best promote universal service while minimizing the impact on the competitive provision of IP-enabled services.

II. IP-ENABLED SERVICES ARE HIGHLY COMPETITIVE, AND ECONOMIC REGULATION WILL HARM CONSUMERS AND DETER INVESTMENT.

As documented in the *VoIP Fact Report*,[3] VoIP and other IP-enabled services are thriving. There is no need to impose economic regulation on any provider in this competitive environment.[4] Indeed, economic regulation of these services – whether through price controls, tariff requirements, or entry and exit restrictions – would not only be unnecessary but affirmatively harmful. In a fully competitive market, providers must focus on product and

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[3] *See* Competition in the Provision of Voice Over IP and Other IP-Enabled Services: Prepared for and Submitted by BellSouth, Qwest, SBC, and Verizon, *IP Enabled Services*, WC Docket No. 04-36 (FCC filed May 28, 2004) ("*VoIP Fact Report*").

[4] The term "economic regulation" is intended to encompass the broad range of regulatory requirements that were originally intended to apply generally to incumbent franchised local exchange carriers using their networks to provide services to a public that is without significant power to negotiate the rates, terms, and conditions of those services. *See NPRM* ¶ 74. For the reasons discussed in the text, such economic regulation is entirely inappropriate in markets that are competitive.

service differentiation; they can compete effectively only if they invest in new technologies and offer customers genuinely innovative services and options. Consumers will get more options, more control, and more innovation in such a market. Economic regulation will skew these incentives, distort the market, and depress investment in these new technologies, all to the detriment of consumers. The Commission has long recognized that competition, rather than regulation, is the surest means to promote consumer welfare, and nowhere is that more true than with respect to IP-enabled and broadband services.[5] Therefore, the Commission should embrace a forward-looking, market-based policy framework for IP-enabled services and competitors.

A. IP-Enabled Services and Broadband Are Highly Competitive.

1. IP-Enabled Services

Providers of IP-enabled services are vigorously competing with one another. This is true for providers of VoIP services as well as for other IP-enabled services such as IP-based video, wireless, and enterprise IP services.

Providers of VoIP services, including cable operators, traditional CLECs, IXCs, and new VoIP providers, are serving customers across the country. These new voice services are fully competitive with one another and also with traditional circuit-switched voice service in terms of price, service quality, and functionality. Indeed, consumers have already begun to abandon circuit-switched service entirely in favor of VoIP, and this will no doubt continue as more products and services with new features become available.

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[5] *See* Report and Order, *Procedures for Implementing the Detariffing of Customer Premises Equipment and Enhanced Services (Second Computer Inquiry)*, 95 F.C.C.2d 1276, 1301, ¶ 38 (1983) ("Regulation often can distort the workings of the market by imposing costs on market participants which they otherwise would not have to bear . . . . [T]he advent and growth of competition in a particular market eliminates the need for continued regulation.").

VoIP and other IP-enabled services have entered the mainstream. What used to be a novelty for engineers has now become, through extraordinary technical advances that have improved the quality of IP-voice communications, a legitimate alternative to traditional telephony for everyone. And the telecommunications industry has responded, with virtually every major telecommunications company announcing plans for commercial deployment of VoIP services.

Cable Operators. Within the past six months, each of the six major cable operators – whose networks currently reach 85 percent of U.S. households and which account for 90 percent of all cable modem subscribers – has begun commercial deployment of IP telephony service or has announced plans to do so in the near future.[6] For example, Cablevision now offers IP-based telephone service to *all* of its 4.4 million cable homes passed in metropolitan New York, southern Connecticut, and New Jersey.[7] Time Warner has announced plans to deploy VoIP services to "essentially all" of its cable systems – which pass a total of almost 19 million homes – by the end of 2004.[8] Comcast plans to offer VoIP service to 100 percent of households reached by its cable system (amounting to approximately 40 million households) by the end of 2006.[9] And analysts now believe that, within two years, more than 80 percent of all U.S. households will be able to obtain VoIP service from a cable operator.[10]

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[6] *See VoIP Fact Report* at 5, Table 1.

[7] *See id.* at 6 (citing Cablevision News Release, *Cablevision Completes Network Rebuild* (Dec. 3, 2003)).

[8] *Id.* (citing Time Warner News Release, *Time Warner Reports First Quarter 2004 Results* (Apr. 28, 2004)).

[9] *See* Peter Grant, *Comcast Pushes into Phone Service*, Wall St. J., May 26, 2004, at A3.

[10] *VoIP Fact Report* at 7.

Cable operators have already made substantial inroads in competition with traditional circuit-switched telephony, and their share of the market is likely to increase with the further deployment of VoIP. Time Warner, for example, achieved a nearly 10 percent share of Portland, Maine's primary-line market within six months of offering its VoIP service.[11] In Roanoke, Virginia, Cox's cable customers are subscribing to its VoIP service at the same rate that they have subscribed to its circuit-switched telephone service.[12] Cablevision has been adding VoIP subscribers at a rate of 3,200 per week in the New York metropolitan area.[13]

Traditional CLECs and Interexchange Carriers. Established CLECs and IXCs have already begun deploying VoIP services or have announced plans to do so. For example, AT&T's new "consumer strategy" is to provide local and long distance services together with "advanced applications" and "mobility" by migrating its customers to its own VoIP platform.[14] AT&T has committed to deploy VoIP services in the top 100 MSAs by the end of 2004[15] and has already begun providing service in some key markets.[16] MCI plans to launch a consumer VoIP service in 2004.[17] Z-Tel has told investors that it is planning to migrate its customers from the

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[11] *Id.*

[12] *Id.*

[13] *Id.* (citing Cablevision News Release, Cablevision Systems Corporation Reports First Quarter 2004 Results (May 10, 2004)).

[14] *Id.* at 8 (citing John Polumbo, President and CEO AT&T Consumer, *AT&T Consumer Overview: Bending the Trends*, at 11 (Feb. 25, 2004)).

[15] *See id.* (citing Cathy Martine, SVP Internet Telephony & Consumer Product Management, AT&T, *Voice over IP* at 27 (Feb. 25, 2004)).

[16] *See id.* at 8 n.23 (citing AT&T News Release, *AT&T's CallVantage Service Expands To Serve the Western United States* (May 17, 2004)).

[17] *See id.* (citing MCI Press Release, *MCI Provides 2004 Financial Guidance* (Jan. 22, 2004)).

UNE-platform to VoIP.[18] And Level 3 recently launched a wholesale service that allows carriers to provide residential VoIP service in more than 50 U.S. markets, and coverage will grow to more than 300 markets by the end of 2004.[19]

New VoIP-Based Providers. The IP-enabled service market is full of VoIP-based providers that have never been traditional, circuit-switched telephone companies. They include companies such as Vonage, which currently have assigned NXXs in more than 1,900 rate centers in approximately 120 U.S. markets, and VoicePulse, which is offering local numbers in more than 55 area codes in 15 states and the District of Columbia.[20] Vonage is adding "more than 20,000 lines per month to its network."[21] Because these providers typically allow their customers to choose their own area codes, they can compete nationwide against both long-distance and local exchange carriers. Vonage also reports spectacular profit margins of more

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[18] *See id.*; News Release, *Z-Tel Announces First Quarter 2004 Financial Results* (Business Wire May 13, 2004) ("Consistent with our plan to shift away from being a UNE-P-only provider, we concentrated our efforts during the first quarter on preparing for our VoIP launch in the Tampa and Atlanta markets by June."), *available at* http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=ztel&script=410& layout=-6&item_id=526509 (internal quotation marks omitted).

[19] *See* Level 3 Press Release, *Level 3 Launches Residential VoIP Service in More than 50 U.S. Markets* (May 3, 2004) ("Key features of (3)VoIP Enhanced local service include: Local and long distance calling including access to the PSTN; Local phone numbers; Operator assistance; Directory listings and assistance; E911 emergency services; Local number portability."), *available at* http://bizyahoo.com/prnews/040503/lam039_1.html.

[20] *VoIP Fact Report* at 9 n.31 (citing Vonage, *About Vonage: Fast Facts*, *available at* http://www.vonage.com/corporate/aboutus_fastfacts.php; VoicePulse, *Available Phone Numbers*, *available at* http://www.voicepulse.com/plans/availability.aspx).

[21] Vonage Press Release, Vonage Launches Service in Halifax, Canada (Apr. 30, 2004), *available at* http://www.vonage.com/media/pdf/pr_04_30_04.pdf.

than 70 percent.[22] Some analysts estimate that new VoIP providers will have cash flow margins of 40 percent.[23]

Bell Companies. The Bell companies are among the newest entrants into the VoIP arena. In providing these services, they derive no advantage from their ownership of the legacy circuit-switched equipment. Verizon and Qwest have each announced plans to deploy consumer VoIP services. Verizon plans to begin rolling out VoIP services in the second quarter of 2004, targeting mass-market consumers.[24]

VoIP Software/Applications. In addition to these providers, there are also a number of public Internet voice services that can be used to make unlimited computer-to-computer voice calls for free. These include services such as Skype, Pulver's Free World Dialup ("FWD"), SIP Phone, and Free IP Call.

A number of companies such as Net2Phone and InPhonex offer calling to the PSTN at rates that are competitive with those for circuit-switched service and below those for VoIP services that rely on private IP backbones. Net2Phone claims that it routes millions of minutes of traffic daily over the data networks. To use these services, consumers usually only need to download software and/or, in some cases, purchase an IP compatible phone.[25]

It is impossible to know precisely how many customers use computer-to-computer software applications such as those offered by Skype and Pulver, because the users of such

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[22] *VoIP Fact Report* at 14 (citing D. Barden, *et al.*, Banc of America Securities, *Straight Talk on VoIP* at 2, 5 (Apr. 15, 2004)).

[23] *Id.* at 14-15 (citing Kagan, *Cable VoIP Outlook: Q1 '04 Sector Update*, at 9 (Jan. 2004); G. Campbell, *et al.*, Merrill Lynch, *Everything Over IP* at 17 (Mar. 12, 2004)).

[24] *See* Joint Declaration of Marilyn H. O'Connell, Eric J. Bruno, and Stuart D. Elby ¶¶ 18-27 (May 28, 2004) ("Joint Verizon Declaration"), attached as Exhibit A to these Comments.

[25] *See VoIP Fact Report*, App. C.

services are not measured in conventional subscriber counts.[26] However, it is possible to get a sense of the magnitude of the number of customers using these services; for example, as of April 2004, Skype's software had been downloaded more than 10 million times.[27]

Other IP-Enabled Services. Voice is not the only IP-enabled service that is commercially available today. Video-over-IP is emerging on a competitive basis and promises to provide significant additional competition to the incumbent cable companies. For example, Verizon recently announced the launch of a fiber-to-the-premises initiative in Keller, Texas, that will feature download speeds as high as 30 megabits per second and will have the capability of carrying high-quality video as well a data and voice communications.[28] In addition, several recent technological advances have made it possible to provide video using current DSL technology. And there have been advances in DSL technology itself – including the development of new asymmetrical DSL chips that offer increased bandwidth and improved quality of service capabilities.[29] As many as 60 small, independent local telephone companies in the U.S. have already begun offering cable-like video services using DSL technology, and the larger companies are considering similar deployments. Video over DSL is already widely deployed in other countries, such as Canada, Japan, Korea, and Italy. In addition, a number of video-over-IP services are now available on the Internet to any DSL or cable modem subscriber.

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[26] *See id.* at 10 (citing J. Halpern, et al., Bernstein Research, *U.S. Telecom and Cable: Flat-Rate Pricing Signals Telephony Voice ARPU Compression* at 4 (Apr. 8, 2004)).

[27] *See id.* at 10 n.36 (citing Skype News Release, *Skype Hits 10 Million Downloads* (Apr. 8, 2004)).

[28] *See* Verizon Press Release, *Verizon, in Historic First, Begins Large-Scale Rollout of Advanced Fiber-Optic Technology with Keller, Texas Deployment; Announces Plans for Offering New Services* (May 19, 2004), *available at* http://investor.verizon.com/news/VZ/2004-05-9_ X74383.html.

[29] *See VoIP Fact Report* at 25 n.127.

Five leading Hollywood studios have joined with Intel to form Movielink, which allows users to download movies on demand in either Windows Media or Real format. And Disney, Microsoft, and AOL have each launched a video-on-demand service in select markets.[30]

Wireless over IP is now available through the deployment of third generation ("3G") wireless networks that offer broadband capabilities comparable to those now available over the wireline telephone and cable networks.[31] These new wireless networks rely on IP rather than on the standard communications protocols used on traditional wireless networks, enabling providers to offer advanced features such as Push-To-Talk. In addition, these new wireless networks should compete directly with fixed broadband services such as cable modem and DSL in the provision of high-speed Internet access. Wireless fidelity ("Wi-Fi") networks will soon be used to compete for traditional mobile voice services, and companies are already planning to introduce a handset that will switch calls from cellular networks to cheaper Wi-Fi networks.[32]

With respect to enterprise customers, IP-enabled services are already being deployed both as complements to and substitutes for the previous generations of packet-switched services, such as Frame Relay and Asynchronous Transfer Mode ("ATM"), and for traditional private lines. Enterprise customers are already using IP-based services to a greater degree than mass-market customers. According to one recent survey, 45 percent of large businesses and 23 percent of medium-sized businesses are now using VoIP, with the totals expected to rise considerably (to

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[30] *See id.* at 26

[31] *See id.*, App. A at 17-19.

[32] *See id.*, App. A at 18 (citing Merrill Lynch, *Everything Over IP* at 36 (describing how if these devices catch on, they could create the opportunity for wireless data customers to make voice calls without being voice subscribers)).

65 percent and 39 percent, respectively) by the end of 2004.[33] Half of Frame Relay customers are expected to have migrated to IP virtual private networks ("VPNs") by 2005. IXCs such as AT&T and MCI are leading in the deployment of IP-based services to enterprise customers, just as they lead in the deployment of older packet-switched services like ATM and Frame Relay. Numerous other competing carriers (such as Level 3, Global Crossing, and ICG) have also deployed IP services for enterprise customers, and all of the Bell companies have announced plans to provide IP-based services to enterprise customers, including IP-VPN services, IP Centrex services, and Hosted IP services.[34]

2. Broadband Services

There is substantial competition not only among providers of VoIP and other IP-enabled services, but also among providers of broadband services through which customers gain access to the IP-enabled services. This is true for both mass-market and large business (or "enterprise") customers. VoIP services generally depend on a broadband connection, and broadband providers today offer broadband to the mass market using at least five competing technologies – wireline, cable, satellite, wireless, and power line. Cable companies indisputably are the preeminent providers in the mass-market segment, with a market share of approximately two-thirds. In the enterprise segment, the incumbent *long-distance* carriers are the dominant providers, by a wide margin.[35]

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[33] *See id.* at 27 (citing S. Flannery, *et al.*, Morgan Stanley, *Part 1 – Annual Telecom Survey: Spending Outlook* at 14 (Mar. 25, 2004)).

[34] *See id.* at 10-11.

[35] *See generally* Comments of Verizon, *Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, CC Docket No. 01-337, Exh. A, Broadband Fact Report at 29-30 (FCC Mar. 1, 2002).

Both the Commission and the D.C. Circuit have found that there is "robust" intermodal competition in the broadband mass market. *See Triennial Review Order*, 18 FCC Rcd at 17151-52, ¶ 292 ("More consumers continue to obtain their high speed Internet access by cable modem service than by xDSL.");[36] *see also USTA II*, 359 F.3d at 582 ("agree[ing] with the Commission that robust intermodal competition from cable providers – the existence of which is supported by very strong record evidence, including cable's maintenance of a broadband market share on the order of 60 percent – means that even if all CLECs were driven from the broadband market, mass market consumers will still have the benefits of competition between cable providers and ILECs") (internal citations omitted).[37]

Cable companies already offer broadband services to more than 85 percent of all U.S. households; by the end of 2004, cable broadband will be available to 90 percent of U.S. households.[38] Cable companies still control a clear majority of all high-speed lines provided to mass-market customers; this market share is likely to continue, given that, through the end of 2003, substantially more customers were subscribing to cable modem service each quarter than to DSL.[39] Cable networks have now been extended to provide broadband services to enterprise

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[36] Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 16978, 17151-52, ¶¶ 51-52 (2003) ("*Triennial Review Order*"), *vacated in part and remanded*, *United States Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) ("*USTA II*").

[37] *See also USTA II*, 359 F.3d at 585 ("intermodal competition from cable ensures the persistence of substantial competition in broadband").

[38] *VoIP Fact Report* at 25 (citing J. Halpern, *et al.*, Bernstein Research Call, *Faster Roll-out of Cable Telephony Means More Risk to RBOCs*; *Faster Growth for Cable* at 2 (Dec. 17, 2003)). The first quarter of 2004 was the first time that the number of new DSL subscribers exceeded the number of new cable-modem subscribers, albeit by only a few thousand. However, the dominance of cable-modem service remains unchanged. *See id.*, App. A at 1.

[39] *Id.*

customers, and small businesses now constitute a fast-growing segment of the customer base.[40] As of the end of 2003, 2.1 million small businesses were using cable broadband, compared to 1.4 million small businesses using DSL.[41] With respect to the enterprise segment, AT&T and MCI are the dominant backbone providers, and they have both aggressively promoted the capacity of these packet-switched networks to carry IP-enabled services.[42]

Cable and DSL are not the only technologies capable of supporting IP-enabled services. The Commission acknowledged in the *Triennial Review Order* "the important broadband potential of other platforms and technologies, such as third generation wireless, satellite, and power lines."[43] Fixed wireless, power-line carriers, and other technologies currently provide broadband connections in many local markets and are poised for expansion.[44] There are more than 1,500 wireless ISPs providing broadband services almost everywhere in the country, and the first commercial deployments of power-line-based broadband service are currently underway.[45]

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[40] *See id.*, App. A at 3.

[41] *See id.* (citing K. Burney, *The Data Nation: Wireline Data Services Spending and Broadband Usage in the US Business Market; Part Three: Small Businesses* (5 to 99 Employees) (Dec. 2003)).

[42] *See id.* at 28.

[43] *Triennial Review Order*, 18 FCC Rcd at 17136, ¶ 263; *see also* Third Report, *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*, 17 FCC Rcd 2844, 2877-81, ¶¶ 79-88 (2002); *see also NPRM* ¶ 9.

[44] *See VoIP Fact Report*, App. A at 8 (citing R. Mark, *Broadband over Power Lines: FCC Plugs In*, Internetnews.com (Apr. 23, 2003)).

[45] *See id.*, App. A at 9.

B. Traditional Economic Regulation is Unnecessary and Harmful for IP-Enabled Services.

Economic regulation is both unnecessary and affirmatively harmful where competition is thriving, as it is among providers of VoIP and other IP-enabled services. Congress, the Commission, and economists all agree that competition is superior to regulation as a means of protecting consumers and encouraging investment. The Commission must eliminate burdensome regulations that inhibit full and fair competition. Specifically, the Commission should refrain from imposing any of the *Computer Inquiry* requirements on Bell companies that provide IP-enabled services; it should declare that all providers of VoIP and IP-enabled services are "non-dominant"; and it should forbear from applying the traditional economic regulations of Title II to these services.

1. Competition Is Superior to Regulation for Protecting Consumers and Encouraging Investment.

Competition is the best means of ensuring that rates remain reasonable and that companies have sufficient incentives to invest in appropriate technologies. The purpose of economic regulation is to attempt to replicate the effects of free competition by requiring carriers to charge just and reasonable rates when they might otherwise charge monopoly prices.[46] But no

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[46] *See Aeronautical Radio, Inc. v. FCC*, 642 F.2d 1221, 1237 (D.C. Cir. 1980) (Wilkey, J., dissenting in part) (citing I A. Kahn, *The Economics of Regulation* 20 (1970)). Alfred Kahn has explained that, notwithstanding the differences in the course of deregulation and deregulatory policies in the airline and telecommunications industries, "[w]hat there is in common is the successful demonstration of the superiority of open competition over direct comprehensive regulation." A. Kahn, *Lessons from Deregulation: Telecommunications and Airlines After the Crunch*, AEI-Brookings Joint Center for Regulatory Studies at 2 (2004).

economic regulation is necessary in a truly competitive market, where competition itself produces and ensures just and reasonable prices.[47]

Moreover, in a competitive market, economic regulation is not only unnecessary but affirmatively harmful because it will deter investment and job growth and will suppress the innovation that consumers are demanding. Economic regulation distorts investment decisions, handicaps regulated companies in the marketplace, and ultimately retards the growth and development of the market as a whole, to the ultimate detriment of consumers. Economic regulation of IP-enabled services or broadband services would stifle the incentives to invest in new technologies and undermine the statutory goal of encouraging the further deployment of broadband telecommunications capability to originate and receive high-quality voice, data, and video telecommunications.[48] The Commission's primary goal should be to ensure that IP-enabled services are not stunted by unnecessary regulation and that the competitive market is not skewed by lopsided regulations that apply only to a subset of market participants.

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[47] The Commission has recognized that "[c]ompetitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production." First Report and Order, *Access Charge Reform*; *Price Cap Performance Review for Local Exchange Carriers*; *Transport Rate Structure and Pricing*; *End User Common Line Charges*, 12 FCC Rcd 15982, 16094-95, ¶ 263 (1997) ("*Access Charge Reform Order*") (stating that "using a market-based approach should minimize the potential that regulation will create and maintain distortions in the investment decisions of competitors as they enter local telecommunications markets"), *petitions for review denied*, *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523 (8th Cir. 1998); *see also* Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act*, 9 FCC Rcd 1411, 1478, ¶ 173 (1994) ("*Wireless Deregulation Order*") (stating that "in a competitive market, market forces are generally sufficient to ensure the lawfulness of rate levels, rate structures, and terms and conditions of service set by carriers who lack market power").

[48] *See* Telecommunications Act of 1996, § 706(a) (reprinted at 47 U.S.C. § 157 note). Moreover, Congress has declared that it is the policy of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation." 47 U.S.C. § 230(b)(2).

2. All Providers of IP-Enabled Services Should Be Subject to the Same Deregulatory Policy Regardless of Underlying Technology.

The Commission should treat all providers of IP-enabled services in the same manner, regardless of the underlying broadband technology used to provide the service. As discussed above, providers of IP-enabled services are actively and vigorously competing with one another. There are virtually no barriers to entry. Moreover, broadband services are highly competitive, with substantial competition for mass-market customers between cable and DSL providers, and with promising new broadband technologies over satellite, wireless, and power lines poised to make an impact. In this context, the Commission should not only refrain from imposing economic regulation but should ensure that all providers of IP-enabled services are subject to the same deregulatory policy.

Whether a particular provider of IP-enabled services is a telephone company, a cable company, a wireless company, a satellite company, an applications provider, a software company, a content company, or other company should make no difference in how those services are regulated. The need for regulatory parity does not, moreover, justify the imposition of new regulatory burdens. On the contrary, the Commission should treat all providers of IP-enabled services the same by adopting a forward-looking, market-based policy framework for *all* competitors.

There is also no need to differentiate among specific IP-enabled services or to place each of them in a particular regulatory category. Instead, the Commission's goal in this proceeding should be to encourage technological innovation with respect to all IP-enabled services by letting competition drive the decision about the products and services that providers will offer, and by ensuring that all technologies are given a fair opportunity to compete. As the Commission has previously recognized, competitively neutral rules that do not favor one technology over others

ultimately provide consumers with the greatest benefits.[49] Not only is such an approach appropriate given the level of competition among providers of IP-enabled services, it is compelled by the technology-neutral principles embodied in the Telecommunications Act of 1996 ("1996 Act" or "Act").[50]

To achieve this goal, the Commission should reject the recent attempt by MCI to justify discriminatory regulatory treatment through its so-called "layers" framework.[51] There are sound engineering reasons to distinguish among the "physical layer" (cable, DSL, wireless fidelity, satellite, etc.), the "logical layer" (http, IP, etc.), the "applications layer" (web browsers, word processing, MP3, etc.), and the "content layer" (text, voice, video, music, etc.). But MCI's proposed regulatory framework is flawed because it uses this engineering model to argue (once

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[49] *See* Report and Order, *Federal-State Joint Board on Universal Service*, 12 FCC Rcd 8776, 8801-02, ¶¶ 48-49 (1997) ("*First Universal Service Order*"), *aff'd in part, rev'd and remanded in part sub nom., Texas Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393 (5th Cir. 1999) ("We anticipate that a policy of technological neutrality will foster the development of competition."); *id.* at 8801-02, ¶ 48 (competitive and technological neutrality "will ensure that [regulatory] disparities are minimized so that no entity receives an unfair competitive advantage that may skew the marketplace or inhibit competition by limiting the available quantity of services or restricting the entry of potential service providers").

[50] *See, e.g.*, 47 U.S.C. § 157 note (encouraging the Commission to deploy advanced telecommunications services "without regard to any transmission media or technology"); *see also* News Release, *FCC Launches Inquiry, Proposes Actions to Promote the Deployment of Advanced Telecommunications Services By All Providers* (FCC Aug. 8, 1998) ("The Commission concluded that Congress made clear that the Communications Act is technologically neutral and is designed to ensure competition in all telecommunications markets.").

[51] *See* Richard S. Whitt, *A Horizontal Leap Forward, Formulating a New Public Policy Framework Based on the Network Layers Model: An MCI Public Policy Paper* (Mar. 2004) ("*MCI White Paper*"), available at http://global.mci.com/about/publicpolicy/presentations/horizontallayerswhitepaper.pdf.

again) that unique and burdensome regulations should be imposed on incumbent LECs (and no one else) in the "physical layer."[52]

MCI's approach, which advocates regulation of transmission services and no regulation at higher layers, ignores the fact that competition for broadband services is flourishing. As discussed above, local telephone companies are not the dominant carriers in this mass-market segment, and vigorous intermodal competition from cable companies and others provide consumers with a choice of providers. If market power exists at all in MCI's model, it is at the level of the Internet backbone, where well-entrenched companies, including MCI, manage a vast network of transmission facilities facing little or no competition.[53] MCI is simply wrong when it suggests that DSL facilities are "bottlenecks" and should therefore be singled out for regulation.[54] Moreover, MCI is wrong to insist that obligations to comply with law enforcement,

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[52] *Id.* at iv (stating that the "last-mile Physical Access Layer facilities with market power, such as ILEC-provisioned DSL, should allow nondiscriminatory access by other networks and applications").

[53] The Internet backbone consists of the routers and high-speed transmission lines that allow for the "transporting and routing of packets between and among ISPs and regional backbone networks." Memorandum Opinion and Order, *Application of WorldCom, Inc. and MCI Communications Corp. for Transfer of Control of MCI Communications Corp. to WorldCom, Inc.*, 13 FCC Rcd 18025, 18106-07, ¶ 148 (1998). MCI manages one of the leading IP backbone networks in the world. *See VoIP Services: Timeframe and Characteristics of Carrier Deployment of VoIP and IP Telephony* at 63, Frost & Sullivan (Dec. 9, 2003); *see also* R. Lynch, *et al.*, Lehman Brothers Equity Research, *Enterprise Telecom Services* at 21 (Nov. 11, 2003) ("MCI owns and operates an estimated 75,000 global route-mile (ex-undersea), IP-MPLS over DWDM at the core fiber backbone reaching an estimated 4,500 IP POPs in 130 markets in 65 countries worldwide. It represents one of the most extensive networks in the US and claims the most dial IP modems of any US carrier (3.2 million).").

[54] *See United States Telecom Ass'n v. FCC*, 290 F.3d 415, 428-29 (D.C. Cir. 2002) (recognizing "[t]the Commission's own findings . . . [that] repeatedly confirm both the robust competition, and the dominance of cable, in the broadband market"), *cert. denied*, 123 S. Ct. 1571 (2003); *see also* Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, 14 FCC Rcd 2398, ¶ 48 (1999) ("The preconditions for monopoly appear absent . . . . [W]e see the potential for this market to accommodate different technologies such as DSL, cable modems, utility fiber to the home, satellite and terrestrial

E911, universal service, and disability access be placed exclusively "at the lower physical layers as part of overall network requirements."[55] As explained in Part V, *infra*, all providers of IP-enabled services should undertake these obligations in furtherance of the Commission's goals of nondiscrimination and technological neutrality.

The so-called "physical layer" should be just as free of economic regulation as the "application" or "content" layers. If analyzed properly, the "layers framework" may well prove to be a useful approach to examining the various components of IP-enabled services. But the Commission should reject MCI's approach, which attempts to use its "layers framework" to justify discriminating against some providers of IP-enabled services in favor of others.

3. The Commission Must Refrain from Imposing any of its *Computer Inquiry* Requirements.

The Commission must refrain from imposing any of the *Computer Inquiry* rules – including, without restriction, the open network architecture ("ONA") and comparably efficient interconnection ("CEI") requirements, as well as any obligation to "unbundle" and offer under tariff the telecommunications component of the information services – on providers of IP-

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radio"); Third Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, 17 FCC Rcd 2844, ¶¶ 79-88 (2002) (describing development of intermodal competition in broadband market); Notice of Proposed Rulemaking, *Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, 16 FCC Rcd 22745, ¶ 5 (2001) ("*Incumbent LEC Broadband NPRM*") ("[T]he one-wire world for customer access appears to no longer be the norm in broadband services markets as the result of the development of intermodal competition among multiple platforms, including DSL, cable modem service, satellite broadband service, and terrestrial and mobile wireless services."); Third Report and Order and Memorandum Opinion and Order, *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, 15 FCC Rcd 11857, 11864-65, ¶¶ 17, 19 (2000) (noting with approval "a continuing increase in consumer broadband choices within and among the various delivery technologies," and indicating that "no group of firms or technology will likely be able to dominate the provision of broadband services").

[55] *MCI White Paper* at 62.

enabled services.[56] Because providers of VoIP and other IP-enabled services have a wide range of competitive options for reaching the end user, the unbundling and ONA/CEI requirements – which apply now only to the Bell companies and which were predicated on the notion that a single firm controls access to all transmission services – are inappropriate in the broadband context.

The *Computer Inquiry* rules were designed for the narrowband network and were premised on the notion that the Bell operating companies retained some measure of bottleneck control over narrowband telecommunications services. The Commission justified imposing these requirements on the grounds that they would prevent the Bell companies from using their control over "the *local exchange network* and the provision of basic services . . . to engage in anticompetitive behavior against enhanced service providers that now include Internet Service Providers ("ISPs") that must obtain basic network services from the BOCs in order to provide their information service offerings."[57] This rationale does not apply to IP-enabled services. The Bell companies not only lack "bottleneck control" over the networks used to deliver IP-enabled services, but they are not even dominant carriers. And in a market full of competitive providers

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[56] In addition to tariffing and unbundling, the ONA/CEI requirements include the obligation to track and report on installation, maintenance, and repair intervals; to provide comparable end-user access to signaling and derived channels; to impute tariffed rates for short cross-connections; and to comply with various unnecessary accounting requirements. The Commission has previously recognized that unnecessary "filing and reporting requirements [] impose[] administrative costs upon carriers" that can "lead to increased rates for consumers" and have "adverse effects on competition." *Wireless Deregulation Order*, 9 FCC Rcd at 1479, ¶ 177.

[57] Further Notice of Proposed Rulemaking, *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services*, 13 FCC Rcd 6040, 6067-68, ¶ 43 (1998) (emphasis added); *see also id.* at 6048-49, ¶ 9 ("One of the Commission's main objectives in the *Computer III* and ONA proceedings has been to . . . prevent[] the BOCs from using their local exchange market power to engage in improper cost allocation and unlawful discrimination against" providers of information services.").

using different IP platforms to reach customers, providers are obviously not required to "obtain basic network services from the BOCs" to reach their customers.[58]

Extending these burdensome and costly regulations to IP-enabled services and networks will stifle innovation and investment, and harm consumers by slowing the development of IP-enabled services. Any requirement to separate transmission components from other service functions, needlessly to duplicate infrastructure facilities or to offer the transmission services exclusively through a generally available tariff, would result in significant real world costs. The most significant harms that would result from the imposition of the *Computer Inquiry* rules would be reflected in lost opportunities to provide services more efficiently to customers such as ISPs, businesses, government entities, and other institutions. This would, in turn, affect the options and prices of high-speed services that are ultimately made available to consumers. The *Computer Inquiry* regulations would preclude Bell companies from partnering with individual

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[58] *See, e.g.*, Third Report and Order and Memorandum Opinion and Order, *Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, 15 FCC Rcd 11857, 11865, ¶ 19 (2000) ("The record before us, which shows a continuing increase in consumer broadband choices within and among the various delivery technologies – xDSL, cable modems, satellite, fixed wireless, and mobile wireless, suggests that no group of firms or technology will likely be able to dominate the provision of broadband services."); Memorandum Opinion and Order, *Application for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Mediaone Group, Inc. to AT&T Corp.*, 15 FCC Rcd 9816, 9866-67, ¶ 116 (2000) (finding that cable operators, despite having a commanding share of the residential broadband market, face "significant actual and potential competition from . . . alternative broadband providers"); Report, *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*, 14 FCC Rcd 2398, 2423-24, ¶ 48 (1999) ("preconditions for monopoly appear absent" in the broadband access market, and "there are, or likely will soon be, a large number of actual participants and potential entrants").

customers to conduct market tests for new and different service and pricing structures, which, if successful, could be extended to other service configurations and providers.[59]

Moreover, the filing and reporting requirements of the *Computer Inquiry* regime would impose administrative costs resulting not only in increased rates for consumers but also in adverse effects on competition.[60] Extending these lopsided obligations to the Bell companies' provision of IP-enabled services would place them at a great competitive disadvantage, making their IP-enabled services less competitive against services delivered by cable operators and other providers. Competition would suffer, and consumers would lose a critical source for innovative new services.

The *Computer Inquiry* rules are essentially a roundabout way of imposing common carrier requirements on IP-enabled services. In this competitive context, providers of VoIP and other IP-enabled services have many options for broadband transmission, and it would be illogical and inequitable to impose *Computer Inquiry* regulations on Bell companies, while leaving unregulated dominant cable providers, IXCs, and new providers such as Pulver and Vonage. Having already decided to waive its *Computer Inquiry* rules with respect to cable broadband service and "tentatively" to forbear from extending Title II common carrier regulation to that service,[61] the Commission should do the same for IP-enabled services (as well as the broadband networks) provided by the Bell companies.

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[59] *See* Joint Verizon Declaration ¶¶ 28-34.

[60] *See Wireless Deregulation Order*, 9 FCC Rcd at 1479, ¶ 177.

[61] *See* Declaratory Ruling and Notice of Proposed Rulemaking, *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, 17 FCC Rcd 4798, 4825-26, ¶¶ 44-47 (2002) ("*Cable Modem Order*"), *vacated in part on other grounds, Brand X Internet Servs. v. FCC*, 345 F.3d 1120 (9th Cir. 2003).

4. The Commission Should Treat All Providers of These Highly Competitive Services as "Non-Dominant."

The Commission should find all providers of IP-enabled services to be "non-dominant." Because only incumbent local exchange carriers are presumptively "dominant" in the provision of telecommunications services,[62] declaring all providers of IP-enabled services to be "non-dominant" would ensure that incumbent local exchange carriers are not unfairly disadvantaged. As discussed above, no provider, including incumbent local exchange carriers who are new entrants in this arena, is in a position to exercise power over other competitors. Indeed, the incumbent local exchange carriers are not "incumbents" with respect to IP-enabled services. The economic regulation that would apply to carriers deemed "dominant" would undercut the Commission's goals of ensuring "that Internet applications remain insulated from unnecessary and harmful economic regulation at both the federal and state levels."[63] By declaring local telephone companies to be non-dominant and deregulating them accordingly, the Commission would foster competition and encourage wider broadband deployment. A declaration of non-dominance is fully justified because local telephone companies lack any market power with respect to either IP-enabled or broadband services.

The Commission's rules define a "dominant carrier" as one "found by the Commission to have market power (*i.e.*, power to control prices)."[64] No provider of IP-enabled services or of

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[62] *See Incumbent LEC Broadband NPRM*, 16 FCC Rcd at 22747-48, ¶ 5.

[63] *See* Memorandum Opinion and Order, *Petition for Declaratory Ruling that pulver.com's Free World Dial Up Is Neither Telecommunications Nor a Telecommunications Service*, WC Docket No. 03-45, FCC 04-27, ¶ 1 (FCC Feb. 19, 2004) ("*Pulver Order*").

[64] 47 C.F.R. § 61.3(q). The Commission has further defined market power as "the ability to raise prices by restricting output" and as "the ability to raise and maintain price above the competitive level without driving away so many customers as to make the increase unprofitable." Fourth Report and Order, *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, 95 F.C.C.2d 554, 558-59, ¶¶ 7-8 (1983), *vacated*

broadband services – and, most particularly, no incumbent local exchange carrier – has the power to control prices.[65] The Commission has historically examined four factors to determine whether a particular carrier has market power: (1) the carrier's market share; (2) the supply elasticity of the market; (3) the demand elasticity of the carrier's customers; and, (4) the carrier's cost structure, size, and resources.[66] For incumbent local exchange carriers – the only carriers currently subject to dominant regulation under the Commission's rules[67] – none of the factors supports a finding that they have market power with respect to IP-enabled services or broadband services generally.

The incumbent LECs are new providers of IP-enabled services.[68] While many incumbent LECs have plans to introduce IP-enabled services in the near future, they will enter the market behind the established cable companies and other providers. And incumbent LECs' share of the broadband market is far from dominant. The mass-market segment is characterized by competition among multiple platforms (*e.g.*, wireline, cable), and the cable companies have by far the largest share. The enterprise segment is generally served by high-quality, high-capacity packet-switched services provided over wireline networks. With data services such as Frame Relay and ATM, the large IXCs such as AT&T and MCI enjoy a commanding lead over their LEC competitors.[69]

AT&T v. FCC, 978 F.2d 727 (D.C. Cir. 1992), *cert. denied*, *MCI Telecomms. Corp. v. AT&T*, 509 U.S. 913 (1993).

[65] *See generally VoIP Fact Report*, App. A.

[66] *See* Order, *Motion of AT&T Corp. to Be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd 3271, 3293-94, ¶ 38 (1995) ("*AT&T Non-Dominance Order*").

[67] *See Incumbent LEC Broadband NPRM*, 16 FCC Rcd at 22747-48, ¶ 5.

[68] *See VoIP Fact Report* at 10-11.

[69] *Id.* at 28.

In assessing the supply elasticity of a market, the Commission looks at both the supply capacity of existing competitors and the lack of entry barriers.[70] There are virtually no barriers to entry in the provision of IP-enabled services. The investment necessary to provide IP-enabled services themselves is relatively small.[71] Moreover, with respect to broadband services, any attempt by local telephone companies to raise price or reduce output would lead customers to defect to other suppliers, who have ample capacity to spare.

With respect to demand elasticity, this Commission should reaffirm the conclusion it reached in 1995 that "residential and business customers are demand elastic, . . . [p]articularly where business customers tend to be sophisticated and residential customers show high churn rates."[72] The intense competition already occurring among providers of IP-enabled services confirms that customers will seek out lower-priced alternatives if the incumbent telephone companies were to raise their rates to unreasonable levels.

The cost structure, size, and resources of the incumbent telephone companies do not confer unfair advantages on them in the provision of IP-enabled services. As the Commission has noted, "the issue is not whether [a particular carrier] has advantages, but 'whether any such advantages are so great to preclude the effective functioning of a competitive market.'"[73] The incumbent local exchange carriers have barely begun to compete. And while their brand-names

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[70] *See AT&T Non-Dominance Order*, 11 FCC Rcd at 3303, ¶ 57; Report and Order, *Competition in the Interstate Interexchange Marketplace*, 6 FCC Rcd 5880, 5888, ¶ 43 (1991) ("*First Interexchange Competition Order*").

[71] *See VoIP Fact Report* at 14 & n.67.

[72] *AT&T Non-Dominance Order*, 11 FCC Rcd at 3307, ¶ 66.

[73] *Id.* at 3309, ¶ 73 (quoting *First Interexchange Competition Order*, 6 FCC Rcd at 5891-92, ¶ 60).

and experience will be useful, the "competitive process itself is largely about trying to develop one's own advantages, and all firms need not be equal in all respects for this process to work."[74]

As a practical matter, treating incumbent LECs as non-dominant would mean that they would be (1) freed from price-cap regulation for their IP-enabled and broadband services; (2) relieved from tariff-filing requirements for these services; (3) allowed to extend, discontinue, or reduce these services without prior authorization under section 214; (4) permitted to introduce new services without having to submit cost-support data; and, (5) released from a variety of annual reporting requirements. But declaring incumbent LECs to be non-dominant would not remove them from all regulation. Even non-dominant carriers are required to offer interstate services under rates, terms, and conditions that are just, reasonable, and not unduly discriminatory, *see* 47 U.S.C. §§ 201, 202, and they remain subject to the Commission's complaint process, *see id.* §§ 206-209.

The Commission has already recognized that dominant carrier regulation was developed with a very different network architecture and economics in mind.[75] Relieving incumbent LECs of dominant-carrier obligations with respect to IP-enabled services, broadband access, and transmission services will not only ensure fair competition, but it will go far in fulfilling this Commission's responsibility to "remove barriers to infrastructure investment" and "encourage

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[74] *First Interexchange Competition Order*, 6 FCC Rcd at 5891-92, ¶ 60.

[75] *See Incumbent LEC Broadband NPRM*, 16 FCC Rcd at 22765, ¶ 38 ("The basic elements of the current regulatory requirements for the provision of broadband services by incumbent LECs were largely in place well before the development of competition between providers of broadband services. In addition, the requirements were primarily developed to address problems created in a one-wire, analog, circuit-switched world. As a result, the existing regulatory requirements may be poorly suited to achieving the Act's goals.").

the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[76]

5. The Commission Should Forbear from Applying the Requirements of Title II to IP-Enabled Services.

The Commission should exercise its authority under section 10 to forbear from applying Title II common carrier regulation to IP-enabled services.[77] By doing so, the Commission will ensure that IP-enabled services are able to develop in accordance with the mandates of the Act and established Commission policies.

Section 10 of the Communications Act requires the Commission to forbear from applying regulations that are: (1) "not necessary to ensure that . . . charges, practices, classifications, or regulations . . . are just and reasonable and are not unjustly or unreasonably discriminatory;" (2) "not necessary for the protection of consumers;" and, (3) not consistent with "the public interest." 47 U.S.C. § 160(a). Each of these criteria applies to require forbearance from Title II common carrier regulation of IP-enabled services.

First, Title II regulation is not necessary to ensure that IP-enabled services will be offered in a just, reasonable, and nondiscriminatory manner. As discussed above, the provision of IP-enabled services is already highly competitive, and participants operate pursuant to cooperative business arrangements. Market forces ensure that rates are kept at reasonable levels and that the terms and conditions under which IP-enabled services are offered are reasonable and nondiscriminatory. Title II regulation of IP-enabled services is therefore unnecessary.

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[76] Telecommunications Act of 1996, § 706(a) (reprinted at 47 U.S.C. § 157 note).

[77] The Commission should grant the Petition of SBC Communications Inc. for Forbearance Under 47 U.S.C. § 160 from Application of Title II Common Carrier Regulation to "IP Platform Services, WC Docket No. 04-29 (filed Feb. 5, 2004).

Second, Title II regulation of IP-enabled services is also not necessary to protect consumers. As discussed above, competitive markets are superior mechanisms for protecting consumer interests, for they ensure that goods and services are provided to consumers in the most efficient manner possible and at prices that reasonably reflect the costs of production. Consumers have already benefited from the regulatory "light touch" that has made the growth of IP-enabled services possible. To reverse course now and to impose common carrier regulation under Title II would harm consumers by undermining incentives for continued innovation that will, in turn, limit the choices that consumers will have.[78]

Third, Title II regulation of IP-enabled services is inconsistent with, and harmful to, the public interest. Title II regulation is unnecessary to ensure that the terms under which IP-enabled services are offered are reasonable because competition will drive both innovation and competitive pricing. Common carrier regulation would distort these market forces by imposing costs on only some market participants. It would also interfere with commercial business relationships and discourage would-be providers from taking full advantage of the IP platforms to offer new and diverse services. Because regulation would drive the design of these services rather than market demand or technological innovation, the imposition of common carrier regulation would undeniably harm the public's interest in continuing to promote the development

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[78] While VoIP providers should be required to take on specific obligations relating to CALEA, 911, and universal service that are necessary to support these important policy objectives, *see infra* Part V, there is no reason at this time generally to subject VoIP providers to the wide range of consumer-protection obligations applicable to common carriers. *See* 47 C.F.R. Part 64. The VoIP industry is highly competitive, and there are multiple providers prepared to offer service. Given the low barriers to entry, competitive forces should be allowed to dictate the kinds of protections that consumers desire. Moreover, existing state and federal consumer protection laws that apply generally to all businesses will ensure that consumers are treated fairly and will guard against potential abuse. Rather than saddling emerging technologies and services with complicated rules that may prove entirely unnecessary, the Commission revisit the issue only where there is a demonstrated need for specific protections.

and use of technology to support advanced services. Title II regulation is also too inflexible to keep up with the innovations that will inevitably take IP-enabled services into completely new directions. Because common carrier regulation under Title II cannot fairly or practicably regulate IP-enabled services, such regulations are not consistent with the public interest.

Any doubt about the appropriateness of forbearance in this context should be resolved by reference to section 706, which directs the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability" through "*regulatory forbearance*" and "other regulating methods that remove barriers to infrastructure investment."[79] The Commission has emphasized that the mandate of section 706 to promote broadband investment through "regulatory forbearance" weighs heavily in favor of forbearing under section 10 from unnecessary regulation of advanced services.[80]

III. IP-ENABLED SERVICES ARE INTERSTATE AND SUBJECT TO EXCLUSIVE FEDERAL JURISDICTION.

The Commission should exercise exclusive jurisdiction over IP-enabled services and preempt state regulation of those services.[81] IP-enabled services rely on packets routed over global networks in disregard of jurisdictional boundaries, and it is impossible to separate out for state regulation the intrastate component of an IP-enabled service. Moreover, exclusive federal jurisdiction is critical for the continued growth and development of IP-enabled services; in the

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[79] 1996 Act, § 706(a) (reprinted at 47 U.S.C. § 157 note) (emphasis added).

[80] *See* Memorandum Opinion and Order and Notice of Proposed Rulemaking, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 13 FCC Rcd 24011, 24044-45, ¶ 69 (1998) ("[S]ection 706(a) directs the Commission to use the authority granted in other provisions, including the forbearance authority under section 10(a), to encourage the deployment of advanced services.").

[81] Section 2(a) of the Act grants the Commission exclusive jurisdiction over interstate communications. *See* 47 U.S.C. § 152(a); *see also Pulver Order* ¶ 16 n.57.

absence of exclusive federal jurisdiction, IP-enabled services would be subject to a patchwork of inconsistent and potentially burdensome state regulations. Instead, the Commission should develop a national policy framework to encourage investment in IP-enabled services and networks, unburdened by costly and inefficient rules.

A. IP-Enabled Services Are Inherently Interstate Services.

The Commission should declare all IP-enabled services to be jurisdictionally interstate. The IP data packets used to provide IP-enabled services ride across global networks without regard for state (or national) boundaries. It is not practical to separate IP-enabled services into discrete interstate and intrastate components. Consistent with its recent decision in the *Pulver Order* and other well-established precedent, the Commission should exercise exclusive federal jurisdiction over IP-enabled services.

IP-enabled services consist of both the IP networks and their associated capabilities and functionalities (*i.e.*, an IP platform), and the services and applications provided over the IP platform or for which an IP capability is an integral component. They also include services and applications that enable an end user to send or receive a communication in IP format. An IP communication may be voice, data, pictures, video, or anything else that is sent to or received by the end user in IP format over an IP infrastructure. IP-based networks utilize packet switching, which breaks up the information to be transmitted into individual units that are labeled in such a way that they can be reassembled when they reach their final destination. Each packet is routed over the most efficient path.[82]

As the Commission observed in the *NPRM*, IP packets are "routed across a global network with multiple access points [that] defy jurisdictional boundaries." *NPRM* ¶ 4. IP-

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[82] *See generally* Joint Verizon Declaration ¶¶ 9-17.

enabled services provide the capability to interact with many different sources of information in various jurisdictions during a single communication.[83] By their very nature, IP-enabled services ignore state boundaries, and the efficient routing of IP traffic depends on the free flow of packets irrespective of the kind of point-to-point routing characteristic of circuit-switched networks. The web servers and soft-switches that allow for the provision of IP-enabled services will, in many cases, be located outside the particular state in which a user of those services is located. When end users employ IP-enabled services to communicate with each other, the packets travel with complete disregard for state and national boundaries.

Moreover, it is impractical to isolate a discrete intrastate component of an IP-enabled service. While traditional telephone networks permit one to determine whether a call is interstate or intrastate because a single carrier provides a physical connection to the end user, the technology underlying IP-enabled services means that there is really no such thing as an "intrastate" transmission. A single data stream may include packets bound for points both inside and outside a given state. But because there is no feasible way for carriers to track the precise content or routes of those packets on an IP platform, it would be impracticable and inconsistent

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[83] The Internet is "an international network of interconnected computers enabling millions of people to communicate with one another and to access vast amounts of information from around the world." Memorandum Opinion and Order, *GTE Telephone Operating Cos.*, 13 FCC Rcd 22466, 22468, ¶ 5 (1998) ("*GTE Order*"); *see also Cable Modem Order*, 17 FCC Rcd at 4799-800, ¶ 1 n.1 (defining "the Internet" as a "global information system"); Final Decision, *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C.2d 384, 432, ¶ 125 (1980) (enhanced services generally consist of the transmission of signals "over the interstate telecommunications network and, as such, fall within the subject matter jurisdiction of this Commission").

with the very nature of the Internet itself to separate out discrete, "intrastate" components of a particular data stream.[84]

The fact that some IP-enabled services have become increasingly portable makes separating the interstate and intrastate portions of an IP communication even more difficult. End users with laptops and other easily transported devices can be anywhere in the world. With respect to VoIP services in particular, because an IP telephone number may be associated with a particular customer but not with a particular geographic location, the party at the IP end of a VoIP call could potentially be located anywhere there is a broadband connection. Typically, after a VoIP customer obtains a broadband connection anywhere in the world, the VoIP provider associates that customer's IP telephone number with the specific IP address that the customer receives from the ISP providing the broadband service, and any calls to that customer are then routed to that IP address. If the customer moves to another broadband connection, the customer's IP telephone number would then be associated with a new IP address at the different location. Because there is no practical way to determine the location of the IP caller, such calls are jurisdictionally interstate.[85]

The Commission's recent ruling classifying Pulver's FWD as an interstate service is significant. There, the Commission held that unless an IP-enabled service can be characterized as "'purely intrastate,' or it is practically and economically possible to separate interstate and

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[84] *See Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523, 543 (8th Cir. 1998) (acknowledging that "the services provided by ISPs may involve both an intrastate and an interstate component and it may be impractical if not impossible to separate the two elements").

[85] *See Pulver Order* ¶ 22; Level 3 Communications LLC's Petition for Forbearance Under 47 U.S.C. § 160(c) and Section 1.53 of the Commission's Rules from Enforcement of Section 251(g), Rule 51.701(b)(1) and rule 69.5(b),WC Docket No. 03-266, at 17 (filed Dec. 23, 2003) (noting that a Level 3 VoIP customer "may route the [VoIP] communication to a terminating point within the same local calling areas as the caller, or to a location in another part of the state, a different state, or different country").

intrastate components of a jurisdictionally mixed . . . service without negating federal objectives for the interstate component, *exclusive Commission jurisdiction has prevailed*." *Pulver Order* ¶ 20 (emphasis added and footnote omitted). Applying this standard, the Commission found Pulver's FWD service to be jurisdictionally interstate; the same analysis holds true for other IP-enabled services.

First, it is plainly not the case that IP-enabled services are "purely intrastate." Because the location of an IP-enabled transmission is not tied to a specific geography but could potentially be located anywhere there is a broadband connection, IP-enabled services are primarily interstate in nature.[86] As the Commission found in the *Pulver Order*, given the fact that the physical end points of an IP communication can "continually change, it is evident that the capabilities of [that service] are not purely intrastate capabilities." *Id.*

Second, it is not possible as a practical or economic matter to separate the interstate and intrastate components of an IP-enabled transmission without negating federal objectives for the interstate component. This is because the physical location of the user of an IP-enabled service may bear no necessary relationship to the end user's identifying "address." As the Commission explained in the *Pulver Order*, "[t]his 'impossibility' results from the global portability feature of [the Pulver] member's unique identification number, enabling that member to initiate and receive on-line communications from anywhere in the world where it can access the Internet via a broadband connection." *Id.* ¶ 22. The same is true with respect to IP-enabled services generally. Because it is impossible to separate the interstate and intrastate components of these services, states purporting to regulate only the intrastate components would effectively negate the

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[86] *See Pulver Order* ¶ 20 (noting that FWD's members currently reside in over 170 countries around the world, with less than 33 percent of those members indicating their country of residence as the United States).

Commission's exercise of its own lawful authority. Exclusive jurisdiction is essential if the Commission's deregulatory approach to IP-enabled services is to have any force.

In addition, it is not possible as a practical matter to carve out the intrastate portion of IP-enabled services.[87] As the Commission has explained, requiring carriers to install systems to track the geographic location of IP packets would impose huge financial burdens without any improvements in service or efficiency. *See id.* ¶ 24. Indeed, the Commission found that such a requirement would serve no purpose other than to comply with "legacy distinctions" that are meaningless in an IP environment. In the end, the Commission concluded that imposing this substantial burden makes little sense in a dynamic market and would impose a significant burden on the development of new and innovative IP services and applications. The Commission's conclusions apply with equal force to all IP-enabled services. There is simply no good reason to require providers of IP-enabled services to expend the substantial resources necessary to develop and deploy a method of separating the services into intrastate and interstate components.

Because of that inseparability, any intrastate components of an IP-enabled service must "yield to exclusive federal jurisdiction in the area of economic or other state regulations affecting entry to advance articulated congressional or federal deregulatory objectives."[88] As courts have

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[87] *See, e.g.*, First Report and Order and Further Notice of Proposed Rulemaking, *Promotion of Competitive Networks in Local Telecommunications Markets*, 15 FCC Rcd 22983, 23031-32, ¶ 107 (2000) ("Because fixed wireless antennas are used in interstate and foreign communications and their use in such communications is inseverable from their intrastate use, regulation of such antennas that is reasonably necessary to advance the purposes of the Act falls within the Commission's authority.") (internal footnote omitted); *see generally Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 375 n.4 (1986) (FCC's jurisdiction extended to situations "where it was not possible to separate the interstate and the intrastate components of the asserted FCC regulation").

[88] *See Pulver Order* ¶ 25 n.91; *see also California v. FCC*, 39 F.3d 919, 931 (9th Cir. 1994) (holding that the Commission may preempt state regulations where those regulations would negate national policy).

explained, the Commission may preempt state regulation when "(1) the matter to be regulated has both interstate and intrastate aspects; (2) [Commission] preemption is necessary to protect a valid federal regulatory objective; and (3) state regulation would negate[ ] the exercise by the FCC of its own lawful authority because regulation of the interstate aspects of the matter cannot be 'unbundled' from regulation of the intrastate aspects." *Public Service Comm'n of Maryland v. FCC*, 909 F.2d 1510, 1515 (D.C. Cir. 1990) (citations and internal quotation marks omitted). Under that test, the Commission should preempt any attempt by states to regulate IP-enabled services – even under the guise of their authority over intrastate services. Congress has set forth a clear national policy that the Internet and other advanced services should remain free from regulation, *see* 47 U.S.C. § 230, and state regulation over intrastate IP-enabled services would frustrate that national policy for all IP-enabled services.[89] The Commission should prevent states from undermining those valid federal regulatory goals by exercising exclusive federal jurisdiction over all IP-enabled services and preempting state regulation.

Exercising federal jurisdiction over "jurisdictionally mixed" IP-enabled services is consistent with past Commission precedent. For example, in the *Cable Modem Order*, the Commission classified cable modem service as jurisdictionally interstate because cable modem

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[89] *See, e.g.*, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking, *Rulemaking To Amend Parts 1, 2, 21, and 25 of the Commission's Rules To Redesignate the 27.5-29.5 Ghz Frequency Band, To Reallocate the 29.5-30.0 Ghz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service And For Fixed Satellite Services*, 12 FCC Rcd 12545, 12701, ¶ 378 (1997) ("[W]here interstate services are jurisdictionally mixed with intrastate services and facilities otherwise regulated by the States, State regulation of the intrastate service that affects interstate service may be preempted where the State regulation thwarts or impedes a valid Federal policy."); Report and Order, *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, 6 FCC Rcd 7571, 7632, ¶ 122 (1991) ("[W]e find that state requirements for separation of facilities and personnel used to provide the intrastate portion of jurisdictionally mixed enhanced services would thwart our objectives, and therefore preempt such requirements.").

service communications often travel between points located in different states and countries.[90] The Commission also has classified DSL service used to provide Internet access as interstate for the same reason.[91] Moreover, "mixed use" special access lines carrying more than a *de minimis* amount of interstate traffic to private line systems are subject to the Commission's jurisdiction because traffic on many such lines cannot be measured without significant additional administrative efforts.[92]

Finally, the Commission's exercise of exclusive jurisdiction over IP-enabled services is critical to the future growth and development of those services. Permitting state-by-state regulation of IP-enabled services would be extremely burdensome and would inevitably chill investment and slow deployment of those services. Investors and developers putting together a global network of networks cannot operate within a patchwork of countless state rules imposing potentially inconsistent obligations with respect to the same IP-enabled service.[93] In the absence of federal preemption, IP-enabled service providers would be required to satisfy the requirements of multiple jurisdictions imposing different and potentially inconsistent certification, tariffing

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[90] *See Cable Modem Order*, 17 FCC Rcd at 4832, ¶ 59.

[91] *See* Memorandum Opinion and Order, *GTE Telephone Operating Cos.*; *GTOC Tariff No. 1*; *GTOC Transmittal No. 1148*, 13 FCC Rcd 22466, 22466, ¶ 1 (1998) (concluding that DSL service, "which permits Internet Service Providers (ISPs) to provide their end user customers with high-speed access to the Internet, is an interstate service and is properly tariffed at the federal level").

[92] *See* Decision and Order, *MTS and WATS Market Structure*; *Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board*, 4 FCC Rcd 5660, 5660, ¶ 6 n.7 (1989).

[93] *See American Libraries Ass'n v. Pataki*, 969 F. Supp. 160, 168 (S.D.N.Y. 1997) ("The unique nature of the Internet highlights the likelihood that a single actor might be subject to haphazard, uncoordinated, and even outright inconsistent regulation by states that the actor never intended to reach and possibly was unaware were being accessed.").

and other regulatory obligations.[94] This Byzantine regulatory scheme would drive some providers out of the market altogether, undermine the continued investment in and growth of IP communications and IP networks, and ultimately deny consumers the benefits of these transformative services.

A patchwork of state regulation will jeopardize investment and innovation in IP-enabled services just at the time when such services are poised for dramatic growth. This is not merely a hypothetical concern – states have already begun to look at regulating these services.[95] The Commission must avoid this result by exercising its exclusive jurisdiction and preempting state regulation of IP-enabled services.

B. State Regulation of IP-Enabled Services Would Impermissibly Burden Interstate Commerce in Violation of the Commerce Clause.

State regulation of IP-enabled services not only risks interfering with the federal policy of encouraging the deployment of advanced telecommunications capability but it also raises significant issues under the Commerce Clause.

Congress has specifically required the Commission to utilize measures that promote competition in the provision of advanced telecommunications capability or to adopt other

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[94] *See NPRM* ¶ 25 ("Certainly, it is this kind of impact Congress considered when it made clear statements about leaving the Internet and interactive computer services free of unnecessary federal and state regulation.").

[95] *See id.* ¶ 34 nn.113-15 (noting that California, Minnesota, Washington, Missouri, Florida, Ohio, and New York have either already decided to regulate, or are considering whether to regulate, VoIP services). The Commission has explained that states have traditionally played little or no role with respect to regulation of information services, which like the Internet, the Commission decided should be allowed to prosper in an unregulated environment. *See Pulver Order* ¶ 17. To the extent an IP-enabled service is classified as an information service, it should remain the case that the Commission should assert its exclusive jurisdiction. But even if a particular IP-enabled service were classified as a telecommunications service, for all the reasons discussed above, the Commission should preempt state regulation of such a service.

regulating methods that remove barriers to infrastructure investment.[96] Consistent with this policy, the Commission has recognized the strong federal interest in ensuring that regulation does nothing to impede the growth of the Internet or the development of competition.[97] Most recently, in declaring that Pulver's service was an unregulated information service subject to exclusive federal jurisdiction, the Commission noted that "federal authority has already been recognized as preeminent in the area of information services, and particularly in the area of the Internet and other interactive computer services." *Pulver Order* ¶ 16. Allowing states to regulate IP-enabled services would thus be inconsistent with Congress's intent for a single, federal regulatory policy.[98]

Indeed, because regulation of IP-enabled services raises issues of national concern, in the absence of any explicit statutory authorization, state regulation of those services would likely be a *per se* violation of the Commerce Clause. As courts have explained, "[u]nder the Commerce Clause, a state regulation is *per se* invalid when it has an 'extraterritorial reach,' that is, when the statute has the practical effect of controlling conduct beyond the boundaries of the state."[99] IP-enabled services are divorced from geographic location and provide access to users wherever they may find a broadband connection. State regulation of an IP-enabled service thus would

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[96] 1996 Act, § 706(a), reprinted at 47 U.S.C. § 157 note.

[97] *See* Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*; *Inter-Carrier Compensation for ISP-Bound Traffic*, 14 FCC Rcd 3689, 3693, ¶ 6 (1999) (emphasis added), *vacated*, *Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).

[98] *See, e.g.*, *American Booksellers Found. v. Dean*, 342 F.3d 96, 104 (2d Cir. 2003) ("We think it likely that the internet will soon be seen as falling within the class of subjects that are protected from State regulation because they imperatively demand a single uniform rule.") (internal quotation marks and alterations omitted).

[99] *See Cotto Waxo Co. v. Williams*, 46 F.3d 790, 793 (8th Cir. 1995) (citing *Healy v. Beer Inst.*, 491 U.S. 324, 336 (1989)).

effectively regulate that service for end users beyond the state's borders.[100] Federal courts have repeatedly struck down state statutes attempting to regulate the Internet as a violation of the Commerce Clause.[101]

In addition, courts have found violations of the Commerce Clause where a state regulation imposes a burden on interstate commerce that is "'clearly excessive in relation to the putative local benefits.'"[102] As already discussed above, allowing state regulation of IP-enabled services would impose a substantial burden on providers of those services. Indeed, *any* obligations imposed on IP-enabled services by the states would be a burden in light of the federal commitment to deregulation of the Internet and other interactive computer services.[103] Requiring IP-enabled service providers to comply with more than 50 potentially different regulatory schemes would make that burden an impossible one to bear.

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[100] *See Pulver Order* ¶ 23 ("The nature of FWD as an Internet application not bound by geography may well render an attempt by a state to regulate any theoretical intrastate FWD component an impermissible extraterritorial reach."). As one court has explained, "[t]he menace of inconsistent state regulation invites analysis under the Commerce Clause of the Constitution, because that clause represented the framers' reaction to overreaching by the individual states that might jeopardize the growth of the nation – and in particular, the national infrastructure of communications and trade – as a whole." *American Libraries*, 969 F. Supp. at 169.

[101] *See, e.g.*, *PSINet, Inc. v. Chapman*, 362 F.3d 227, 240 (4th Cir. 2004) ("The content of the Internet is analogous to the content of the night sky. One state simply cannot block a constellation from the view of its own citizens without blocking or affecting the view of the citizens of other states."); *Cyberspace Communications, Inc. v. Engler*, 142 F. Supp. 2d 827, 830-31 (E.D. Mich. 2001) ("Michigan's effort to regulate what information may be transmitted to Michigan's children, via the Internet, attempts to control Internet communications which might originate within Michigan, in other states, or in other countries."); *Pataki*, 969 F. Supp. at 167 ("[T]he Internet fits easily within the parameters of interests traditionally protected by the Commerce Clause.").

[102] *Pulver Order* ¶ 24 (quoting *Pike v. Bruce Church*, 397 U.S. 137, 142 (1970)).

[103] *See, e.g.*, *id.* ¶ 19 n.70 ("Any state attempt to impose economic or other regulations that treat FWD like a telecommunications service would impermissibly interfere with the Commission's valid federal interest in encouraging the further development of Internet applications such as these, unfettered by Federal or state regulation, and thus would be preempted.").

At the same time, *no* local benefits would result from state economic regulation of IP-enabled services.[104] As an initial matter, to the extent states would have any jurisdiction over IP-enabled services, that jurisdiction would be limited only to intrastate services.[105] But because IP-enabled services are inherently interstate communications, the class of intrastate IP-enabled services that potentially could benefit from state regulation would be nonexistent.[106] As discussed above, vigorous competition – not regulation – best protects consumers from unfair or unreasonable rates or conditions.[107]

IV. IP-ENABLED SERVICE PROVIDERS SHOULD PAY ACCESS CHARGES WHEN THEY USE THE PSTN TO ORIGINATE OR TERMINATE CALLS.

To the extent that IP-enabled services, including VoIP services, use the PSTN to originate or terminate calls, they should pay access charges. This would compensate the incumbent for the costs of the network. It is also consistent with the Commission's current rules that generally require all users of the PSTN to pay access charges.

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[104] *Id.* ¶ 24 ("[W]e cannot envision how state economic regulation of the FWD service . . . could benefit the public.").

[105] *See id.* ¶ 20 n.72 ("We recognize that states theoretically could have a role in regulating a purely *intrastate* information service."). As discussed above, however, it is virtually impossible as a practical and economic matter to separate IP-enabled services into intrastate and interstate components.

[106] *See, e.g.*, *PSINet*, 362 F.3d at 240 ("By construing the Act so that it only reaches intrastate communication, the Commonwealth again finds itself in the same conundrum as it did in its First Amendment analysis. If the Commonwealth is capable of limiting its Internet regulation as not to directly offend the Commerce Clause, then it will have no local benefit given the vast number of other communication options available to a juvenile seeking them."); *R & M Oil & Supply, Inc. v. Saunders*, 307 F.3d 731, 735 (8th Cir. 2002) (holding that a state statute intended to protect propane supplies for state residents during the winter did not provide any local benefits where the state failed to demonstrate that state residents had experienced propane shortages in the past).

[107] *See NPRM* ¶ 37 n.123 (citing *Orloff v. FCC*, 352 F.3d 415, 419, 421 (D.C. Cir. 2003)).

A. Providers of IP-Enabled Services That Use the PSTN to Originate or Terminate Interstate Calls Should Pay Access Charges

When providers of VoIP and other IP-enabled services use the PSTN to originate or terminate interstate calls, they impose network costs for which incumbents should be compensated. If providers of IP-enabled services do not pay access charges, local exchange carriers would not be compensated for the use of their network, and such a regime would create a significant opportunity for arbitrage.

Most fundamentally, denying LECs access charges for originating or terminating VoIP and IP-enabled services traffic would deny them the opportunity to recover the costs of providing interstate access services. "The access charge rules provide for the recovery of the incumbent LECs' costs assigned to the interstate jurisdiction by the separations rules."[108] A LEC's facilities are used to provide both local and interexchange services. While LECs recover the costs of providing local service through basic intrastate telephone rates, access charges compensate LECs for the costs incurred when they originate or terminate interexchange telecommunications traffic.[109] Thus, access charges remain essential to allow LECs to recover the full costs of their networks.[110]

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[108] *See Access Charge Reform* Order, 12 FCC Rcd at 15991, ¶ 21; *see also* Sixth Report and Order, *Access Charge Reform*, 15 FCC Rcd 12962, 13008, ¶ 130 (2000).

[109] *See id.* at 12965, ¶ 5.

[110] The Commission has rejected the argument that VoIP traffic should somehow be exempt from access rates "on the basis that these access charges are above cost and inefficient." Order, *Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 02-361, ¶ 18 (FCC Apr. 21, 2004) ("*AT&T Order*"). As the Commission explained in the *AT&T Order*, until such time as the Commission changes its access charge regime, access charges are the mechanism for compensating local exchange carriers for the use of their switching facilities to originate or terminate interstate telecommunications services. *See id.*

In addition, some VoIP providers have established arrangements with CLECs to allow VoIP calls to reach the PSTN by having the CLECs transport the call to the appropriate wire center of the called party. But rather than treating this transport service as the terminating access portion of a long distance call from a VoIP caller to a called party on the PSTN, these CLECs effectively recharacterize this service as a local call that originates on their network and terminates on the network of the incumbent LEC. This is arbitrage. Not only does this deprive the terminating LEC of the access charges to which it is entitled, but it would also provide the CLEC a windfall under the Commission's reciprocal compensation mechanism adopted in the 2001 *ISP Remand Order*. Specifically, because the Commission presumes that any traffic below the 3:1 ratio of terminating to originating traffic is local traffic subject to reciprocal compensation, while traffic that exceeds the 3:1 ratio is ISP bound and subject to a lower compensation rate, this legal sleight of hand will result in an increase in the reciprocal compensation payments that the terminating LEC owes to the CLEC, even though nothing about the nature of this traffic has changed.[111] This would represent a complete subversion of the Commission's access charge regime, and this Commission has recognized that there is "no benefit in promoting one party's use of a specific technology to engage in arbitrage at the cost of what other parties are entitled to under the statute and our rules."[112]

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[111] Order on Remand and Report and Order, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*; *Intercarrier Compensation for ISP-Bound Traffic*, 16 FCC Rcd 9151, 9187-88, ¶ 79 (2001) ("*ISP Remand Order*"), *remanded*, *WorldCom, Inc. v. FCC*, 288 F.3d 429 (D.C. Cir. 2002), *cert. denied*, 123 S. Ct. 1927 (2003).

[112] *AT&T Order* ¶ 17. To hold otherwise would create perverse incentives, as the Commission wisely observed when rejecting AT&T's request for a special exemption from access charges for its IP-in-the-middle service: "IP technology should be deployed based on its potential to create new services and network efficiencies, not solely as a means to avoid paying access charges." *Id.* ¶ 18.

B. Under the Commission's Current Rules, Users of the PSTN Must Pay Access Charges.

The Commission's existing rules governing the payment of access charges are sensible and clear. When providers of VoIP and other IP-enabled services allow their customers to engage in a real-time voice conversation with customers of other carriers located on the PSTN, they are using the local exchange carrier's switching facilities to originate or terminate a call and should pay access charges. And the limited exception to this rule for ISPs does not apply to providers of VoIP and other IP-enabled services.

In its recent *AT&T Order*, the Commission has confirmed that there is no exception to the general rule that providers of telecommunications services that use the PSTN to originate or terminate interstate traffic are subject to access charges.[113] To the extent that the Commission concludes that providers of VoIP and other IP-enabled services are providers of interstate telecommunications services, the Commission's current rules unambiguously require the payment of access charges when such services "use local exchange switching facilities for the provision of" those services.[114]

After concluding over 20 years ago that ISPs were included within the group of users of access services – a group that included facilities-based carriers, resellers, privately owned systems, and other private line and WATS customers – the Commission nonetheless adopted a narrow exception to its rule that carriers who use the PSTN must pay access charges.[115]

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[113] *AT&T Order* ¶ 16.

[114] *Id.* ¶ 14.

[115] *See* Memorandum Opinion and Order, *MTS and WATS Market Structure*, 97 F.C.C.2d 682, 711-12, ¶ 78 (1983) ("*MTS/WATS Market Structure Order*"); *see also id.* at 711, ¶ 76 (stating that the Commission's "intent was to apply these carrier's carrier charges to interexchange carriers, and to all resellers and enhanced service providers").

According to the Commission, ISPs should be exempt from the interstate regulatory system designed for circuit-switched interexchange voice telephone because ISPs use incumbent LEC networks to receive calls from their customers, not (as IXCs do) as a conduit that allows their customers to make or receive calls to or from others.[116] When deciding to continue the exemption notwithstanding the growth and development in ISP technologies and markets since the Commission first established the access-charge regime in the early 1980s, the Commission justified treating ISPs differently because the Commission believed that ISPs did not appear to be using the public switched network in a manner analogous to IXCs.[117]

The "exemption" from access charges granted to ISPs is, by definition, an exception to a requirement to pay access charges that would otherwise apply. It was designed for ISPs who use the telephone network in the same manner as other businesses use it – to allow their customers to reach them so they can sell their products.[118] According to the Commission, ISPs do not use LEC services or facilities "*in the same way or for the same purposes*" as IXCs do.[119]

When it originally upheld the ISP exemption in 1997, the Eighth Circuit agreed with the Commission that ISPs do not utilize LEC services and facilities in the same way or for the same

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[116] *Access Charge Reform Order*, 12 FCC Rcd at 16132-33, ¶ 343.

[117] *See id.* at 16133-34, ¶ 345 ("[M]any of the characteristics of ISP traffic (such as large numbers of incoming calls to Internet service providers) may be shared by other classes of business customers.").

[118] Brief for FCC, *Southwestern Bell Tel. Co. v. FCC*, No. 97-2618, at 75-76 (8th Cir. filed 1997) ("FCC Br.") ("[T]he ISP's use of the LEC facilities is analogous to the way another business subscriber uses a similarly-priced local business line to receive calls from customers who want to buy that subscriber's wares that are stored in another state and require shipment back to the customer's location.").

[119] *See* FCC Br. at 75-76 (emphasis added); *see also id.* at 81 (the ISP exemption "in effect treats ISPs as 'end users' of local services and does not require them to pay per-minute access charges").

purposes as other customers who are assessed per-minute interstate access charges.[120] The typical ISP purchases business lines in order to receive calls from its customers who want to obtain access to the Internet or to some information service stored in a database. In contrast to an IXC, a typical information service provider does not use the PSTN on both ends of the call to originate or terminate voice communications.

But that same distinction cannot possibly hold true for providers of a VoIP service that allows a caller on the PSTN to speak with someone else. The Commission never intended the ISP exemption to apply to the situation where a caller (whether or not a VoIP subscriber) uses an ordinary telephone to call a VoIP subscriber or where a VoIP subscriber uses an IP telephone to reach a called party on the PSTN. In both situations, the ISP is using the PSTN to allow end users either to make or to receive an ordinary telephone call, so it is using the PSTN not "in order to receive local calls from customers who want to buy [its] information services" but rather "in a manner analogous to IXCs."[121]

V. VOIP PROVIDERS SHOULD BE SUBJECT TO SPECIFIC OBLIGATIONS TO FURTHER IMPORTANT PUBLIC POLICY GOALS.

As discussed above, economic regulation of VoIP services would be both unnecessary and harmful. Nonetheless, some regulation of VoIP services is appropriate to effect important federal policy objectives. As Chairman Powell has recognized, "rules designed to ensure law

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[120] *Southwestern Bell*, 153 F.3d at 542 (in upholding the ISP exemption from paying access charges, the Eighth Circuit agreed with the Commission, concluding that ISPs "do not utilize LEC services and facilities in the same way or for the same purposes as other customers who are assessed per-minute interstate access charges. . . . "[E]ven where two different sets of carriers seek to use LEC network services and facilities that might be 'technologically identical,' the services and facilities provided by the LEC are 'distinct' *if the carriers are making different uses of them*.") (emphasis added); *see also id.* 544 ("Here, the FCC is exempting from interstate access charges ISPs that, according to the FCC, utilize the local networks differently than do IXCs.").

[121] FCC Br. at 75-76; *see Access Charge Reform Order*, 12 FCC Rcd at 16133, ¶ 345.

enforcement access, universal service, disability access and emergency 911 service can and should be preserved in the new architecture."[122] Verizon supports these objectives.

A. VOIP Providers Should Be Subject to the Communications Assistance for Law Enforcement Act.

All carriers of voice communications should be required to comply with the requirements of the Communications Assistance for Law Enforcement Act ("CALEA").[123] Verizon is already taking steps to develop IP-enabled voice services that will comply with CALEA. If CALEA is to fulfill its function of ensuring that law enforcement has the technical means to intercept wire and electronic communications and to access call-identifying information, then it must apply to *all* providers of such services, including cable companies and others that offer broadband transmissions of voice communications. Otherwise, users will be able to avoid surveillance by simply turning to carriers that have no CALEA obligations to cooperate with law enforcement. The Commission should adopt the following principles:

First, the Commission should make clear that CALEA obligations apply to all VoIP providers, and not just to the underlying transport provider whose network is used to carry voice

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[122] Separate Statement of Michael K. Powell, *IP-Enabled Services Notice of Proposed Rulemaking*, at 1; *see also NPRM* ¶ 42 ("Congress stated that the Internet should remain free from regulation. But Congress also has stated public policy goals that would presumably continue to apply as communications networks evolve. For example, it has stated that universal service should be maintained, that telecommunications equipment and services should remain usable by people with disabilities, that prompt emergency service should be available to the public through the 911 system, and that communications should be accessible to law enforcement officers acting on the basis of a lawfully obtained warrant.") (footnote omitted).

[123] Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended at 18 U.S.C. § 2522 and 47 U.S.C. §§ 229, 1001-1010). Verizon's position on CALEA's applicability to VoIP and other IP-enabled services is presented in more detail in the Commission's separate rulemaking examining law enforcement's needs relative to CALEA. *See* United States Department of Justice, Federal Bureau of Investigation and Drug Enforcement Administration Joint Petition for Expedited Ruling, *Joint Petition for Expedited Ruling Concerning the Communications Assistance for Law Enforcement Act*, D.A. No. 04-700, RM 10865 (FCC filed Mar. 10, 2004).

over IP traffic. For example, when Verizon provides only the underlying transport service, such as DSL, and a non-affiliated provider provides VoIP service, Verizon would be switching and forwarding data based on information at the physical, data-link, and network layers of the protocol stack.[124] As a result, although Verizon could provide law enforcement with the customer's entire packet stream, Verizon's routers and switches would not normally process or be able to interpret higher layers, including the application layer. In such cases, Verizon often is unaware of what type of communication and information (*e.g.*, voice, data, content, signaling) is being transmitted. In the case of the DSL customer, for example, Verizon in many cases would not know whether the customer was using its third-party VoIP application, sending an e-mail, surfing the Internet, or engaging in some other activity. In such cases, it is not clear how or if Verizon could filter the packet stream to isolate the information relating to a VoIP communication. Rather, the CALEA obligation should fall to the VoIP application provider, which can isolate and interpret the relevant information.

Second, the Commission's application of CALEA to VoIP does not depend on whether those services are subject to Title I or Title II of the Communications Act. Because CALEA has its own, broader definition of "telecommunications carrier," *see* 47 U.S.C. § 1001(8), the definition under the Act does *not* control whether CALEA applies.[125] Specifically, under the first of CALEA's definitional provisions, an entity qualifies as a telecommunications carrier if it

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[124] *See supra* Part II.B.2 (discussing layers approach). Networks are often organized into protocol layers to reduce design complexity, each with a particular function or functions needed to transmit data.

[125] The Commission has expressly concluded that "[t]he pertinent sections of CALEA are not part of the Communications Act" and that "the entities and services subject to CALEA must be based on the CALEA definition . . . independently of their classification for the separate purposes of the Communications Act." Second Report and Order, *Communications Assistance for Law Enforcement Act*, 15 FCC Rcd 7105, 7112, ¶ 13 (1999) ("*CALEA Second R&O*").

is “engaged in the transmission or switching” of electronic communication as a “common carrier.” *Id.* § 1001(8)(A). Separately, under the second prong of CALEA’s definition, an entity also qualifies as a telecommunications carrier if it is “engaged in providing wire or electronic communication switching or transmission service” that is a “replacement for a substantial portion of the local telephone exchange service” and if such qualification is in the public interest. *Id.* § 1001(8)(B)(ii).

A “telecommunications carrier” under the Communications Act is defined more narrowly to include only providers of transmission “between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received,” for a fee directly to the public. *Id.* § 153(43)-(44). So a provider may qualify as a “telecommunications carrier” under CALEA even if, for example, it does not provide transmission for a fee directly to the public.

Importantly, to qualify as a telecommunications carrier under CALEA’s second definitional prong, an entity need not actually perform the transmission or switching itself; rather, a “telecommunications carrier” needs only to be engaged in *providing* an electronic communication service that involves switching or transmission, regardless of whether it or some other entity performs the actual transmission or switching. Because all VoIP providers offer a form of electronic communication service that necessarily involves switching or transmission in order to complete the communication, and because VoIP is a replacement for voice services that have long been part of local telephone exchange services, the Commission has broad flexibility to require VoIP providers to comply with CALEA regardless of whether such services are classified as telecommunications or information service sunder the Communications Act.

B. Providers of VoIP Services Should Be Required to Ensure That Their Callers Can Reach Emergency Personnel by Dialing 911.

The Commission should require all providers of VoIP services to have the capability of allowing their subscribers to reach emergency personnel by dialing 911. Emergency 911 service is an essential public safety tool that should be accessible to all Americans regardless of whether they are making a traditional wireline call, a wireless call, or a VoIP call.[126] The Commission should require all VoIP providers to offer a basic level of 911 service to their subscribers;[127] however, consistent with its prior practice, the Commission should refrain from requiring VoIP providers immediately to provide access to enhanced 911 ("E911") services until the industry has had an opportunity to develop standards and solutions for VoIP E911 functionality. Indeed, standards governing VoIP calls are currently being developed through industry collaborations, *see NPRM* ¶ 56, and the industry will phase them in as soon as technically practicable.

Although some cable providers have stated that they can provide E911 capability, it is not yet technically or operationally feasible for most VoIP providers to offer E911 functionality at this time. In a basic 911 call, when callers dial 911, they are connected to a PSAP, where a 911 operator queries the caller and collects the relevant customer information, including the caller's location, and then dispatches to the caller whatever emergency service may be needed. *See* 47 C.F.R. § 20.18(b). In an E911 call, however, the caller does not need to provide location information because the PSAP automatically obtains the caller's Automatic Number

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[126] Report and Order and Second Further Notice of Proposed Rulemaking, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 18 FCC Rcd 25340, 25341, ¶ 1 (2003) ("*E911 Scope Order*") ("911 service is critical to our Nation's ability to respond to a host of crises.").

[127] As explained below, basic 911 service allows the caller to reach the public safety answering point ("PSAP") nearest the VoIP caller's location, but does not automatically provide the PSAP with the caller's location or telephone number.

Identification and Automatic Location Identification ("ALI"). E911 functionality depends, therefore, on a predictable relationship between the caller's phone number and a fixed location. *See id.* § 20.18(d).

But, as already explained above, a VoIP caller's telephone number is not necessarily tied to an identifiable geographic location but rather with a particular IP address or IP device. Thus, a VoIP customer using that same phone number can potentially make a VoIP call from any broadband connection anywhere in the world. And, because many VoIP providers allow their customers to pick their own area code, VoIP customers often select telephone numbers that are outside their local calling area.[128] Thus, PSAPs cannot obtain location information for a VoIP call based simply on the calling party's telephone number. As the Commission has recognized, these are difficult technical issues that will take some time to resolve.[129] Indeed, virtually every

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[128] The ability of VoIP customers to pick their own area code also presents an issue for number portability. With respect to VoIP customers that have chosen an NPA-NXX designation that is appropriate for the rate center in which they reside, the Commission should ensure that those customers may keep their phone numbers if they choose to switch service to a traditional wireline service provider. In other words, the Commission should make clear that the VoIP provider is not the "owner" of the telephone number. However, with respect to VoIP telephone numbers that fall outside of the customer's geographic rate center, the Commission should make clear that local exchange carriers have no obligation to port in those numbers when a VoIP customer switches service. The Commission has already recognized that, where a customer of one wireline carrier is migrating to another wireline carrier, the new carrier cannot port the telephone number when the "rate center associated with the number does not match the rate center associated with the customer's physical location." Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, *Telephone Number Portability*; *CTIA Petitions for Declaratory Ruling on Wireline-Wireless Porting Issues*, 18 FCC Rcd 23697, 23714-15, ¶ 43 (2003). The Commission should clarify that the same holds true when a customer migrates from a VoIP provider to a wireline carrier.

[129] On March 18, 2004, the Commission held the first "Solutions Summit" specifically to begin to address the complex issues associated with implementing 911/E911 for VoIP technology. *See* News Release, *FCC Internet Policy Working Group To Hold First "Solutions Summit" on Thursday, March 18, 2004* (FCC Feb. 12, 2004), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243851A1.pdf. The FCC has chartered the Network Reliability & Interoperability Council ("NRIC") VII, which has created a sub-team

provider in the industry agrees that it is not currently possible to offer E911 services to VoIP customers.[130]

The Commission should therefore require that the industry develop and agree to consistent E911 standards and, once standards are developed and agreed upon, implement a phased in approach that, as a first step, requires VoIP providers to provide access to basic 911 services immediately. As the Commission noted in the *NPRM*, members of the VoIP industry are already working voluntarily to develop standards and solutions for implementing 911/E911 service. For example, the Commission has tasked NRIC to examine E911 and IP technology. Separately, the Internet Engineering Task Force, an international standards body, is working on the same issues. Also, the National Emergency Number Association ("NENA") and the Voice on the NET are both working on E911 solutions for VoIP.[131] Given these recent developments, it is apparent that voluntary industry consensus, rather than Commission regulation, will best facilitate deployment of IP-enabled E911 services.[132] And, once the standards development is completed, VoIP providers should be required to adhere to those standards so that 911 technology can operate efficiently.

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specifically charged with working on the effectiveness of E911 functionality in the VoIP environment.

[130] *See, e.g.*, AT&T Call Vantage, *Important Information about the 911 Emergency Dialing Feature*, *available at* http://www.usa.att.com/callvantage/faqs/about_911.jsp ("In order for 911 Emergency Dialing to work properly, the service address we have on file for you MUST correspond to the physical location of your AT&T CallVantage Service phone.").

[131] *See NPRM* ¶ 56. On April 25-26, 2004, NENA held a "Critical Issues Forum" to address issues underlying E911 functionality over VoIP. *See* Baltimore VoIP and E9-1-1, *available at* http://www.nena.org/baltimore%5Fcif/.

[132] *See* Report and Order and Further Notice of Proposed Rulemaking, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 11 FCC Rcd 18676, 18712-13, ¶ 73 (1996) (noting that the Commission "should determine what capabilities must be achieved, rather than attempting to promulgate extensive technical standards").

Verizon is actively participating in 911 initiatives concerning VoIP, including a number of industry efforts to address technical standards for VoIP 911 solutions. One initiative is providing an opportunity for Verizon, BellSouth, SBC, and Qwest to contract with Telcordia to research and develop 911 interface specification standards to accommodate VoIP technologies. Telcordia has begun work and is expected to continue through 2004. Additionally, Verizon is working with the Alliance for Telecommunication Solutions, the Emergency Services Interconnection Forum, and NENA to ensure the adoption of an industry standard for 911 functionality in the VoIP environment. Verizon is committed to working with the 911 community to make certain that consumers have the best products and services, especially as it relates to public safety.

Importantly, the Commission should adopt the same approach to VoIP E911 functionality regardless of whether the Commission classifies VoIP as an information service or telecommunications service. As the Commission explained in the *E911 Scope Order*, the Commission has authority to regulate interstate communications "for the purpose of promoting safety of life and property through the use of wire and radio communication." *E911 Scope Order*, 18 FCC Rcd at 25345-46, ¶ 13.[133] The Commission has also recognized the directive to "facilitate the prompt deployment throughout the United States of a seamless, ubiquitous, and reliable end-to-end infrastructure for communications . . . to meet the Nation's public safety and other communications needs."[134] Accordingly, in determining whether a service should be subject to 911 regulation, the Commission does not look to whether a service is classified under Title I or Title II. Instead, the Commission relies upon certain criteria that help to determine

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[133] 47 U.S.C. § 151; *see also E911 Scope Order*, 18 FCC Rcd at 25346, ¶ 14.

[134] *See* 47 U.S.C. § 615 note; Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286 (codified at 47 U.S.C. §§ 222, 251(e)).

whether application of some form of 911 regulation would be in the public interest.[135] And, as discussed above, there can be little question that public interest requires the Commission to impose some form of 911 regulation on VoIP services.

C. Providers of VoIP Services Should Be Required To Contribute to the Universal Service Fund.

The Commission should ensure that all providers of VoIP contribute to universal service in light of its responsibility to establish a funding mechanism that "will preserve and advance universal service, maintain competitive neutrality, and ensure long-term sustainability of the universal service fund."[136] As new technologies develop and consumers move to VoIP, the Commission should establish the following principles: (1) the universal service fund should be maintained at a level adequate to ensure that all Americans have access to basic telephone service; and (2) the obligations to contribute to the fund should be applied in a competitively neutral manner to all providers of voice services – including both traditional wireline and VoIP service – regardless of whether the providers are facility based or non-facility based.

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[135] Specifically, the four criteria are whether: (1) it offers real-time, two-way voice service that is interconnected to the public switched network on either a stand-alone basis or packaged with other telecommunications services; (2) the customers using the service or device have a reasonable expectation of access to 911 and E911 services; (3) the service competes with traditional CMRS or wireline local exchange service; and (4) it is technically and operationally feasible for the service or device to support E911. *See NPRM* ¶ 55; *see also E911 Scope Order*, 18 FCC Rcd at 25347, ¶¶ 18-19.

[136] Recommended Decision, *Federal-State Joint Board On Universal Service*, CC Docket No. 96-45, FCC 04J-1, at 2 (FCC Feb. 27, 2004); *see also* 47 U.S.C. § 254(d) ("Every telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service.").

1. VoIP Providers Should Have the Same Obligations To Support the Universal Service Program as Other Providers of Voice Services.

The Commission should impose the same universal service obligations on all providers of voice services – both circuit-switched and VoIP – regardless of the technology used to provide those services. A broad contribution base that includes all providers of voice services will preserve universal service and ensure that the funding levels remain predictable and sufficient, even as the use of VoIP services continues to grow. Indeed, exempting voice providers from universal service obligations simply because they are providing the service using IP technology would place the entire burden of funding the Universal Service Program on circuit switched telephone customers. As the Commission has noted, "[a] principal purpose of section 254 is to create mechanisms that will sustain universal service as competition emerges."[137] A broad contribution base that includes all voice providers will ensure that the Universal Service Program – and its goal of ensuring the delivery of affordable telecommunications service to all Americans – remains intact in this rapidly changing marketplace.[138]

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[137] *See First Universal Service Order*, 12 FCC Rcd at 8802-03, ¶ 50; *see also* Memorandum Opinion and Order, *AVR, L.P. d/b/a Hyperion of Tennessee, L.P. Petition For Preemption of Tennessee Code Annotated § 65-4-201(D) and Tennessee Regulatory Authority Decision Denying Hyperion's Application Requesting Authority To Provide Service in Tennessee Rural LEC Service Areas*, 14 FCC Rcd 11064, 11074, ¶ 20 n.57 (1999) (same).

[138] *See First Universal Service Order*, 12 FCC Rcd at 8780, ¶ 1; *see also id.* at 9183-84, ¶ 795 (stating that "the inclusion of [private service providers and payphone aggregators] as contributors to the support mechanisms will broaden the funding base, lessening contribution requirements on telecommunications carriers or any particular class of telecommunications providers"); Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11557, ¶ 117 (1998) ("*Report to Congress*") (stating that the public interest underlying universal service "requires both private service providers that offer interstate telecommunications to others for a fee and payphone aggregators to contribute to the preservation and advancement of universal service in the same manner as carriers that provide interstate telecommunications services.") (internal quotation marks omitted).

Moreover, assessing universal service on all providers of voice services will make certain that the universal service program remains both competitively and technologically neutral.[139] This is important to minimize any unfair advantages created by regulatory disparities.[140] If traditional wireline carriers are forced to bear universal obligations that are not imposed on VoIP providers, prices for wireline services will likely rise, and wireline carriers will necessarily be placed at a competitive disadvantage in a highly competitive marketplace. That would not only be inconsistent with the public interest but would conflict with the Commission's policy of avoiding "the possibility that carriers with universal service obligations will compete directly with carriers without such obligations."[141] The Commission should not allow regulatory disparities in the rules governing universal service contributions to distort consumer decisions about which technology to use for their voice services. The marketplace, and not regulation, should be permitted to direct the success of a particular technology.[142]

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[139] *See* Order, *Federal-State Joint Board on Universal Service*, 18 FCC Rcd 15597, 15600, ¶ 7 (2003) ("Competitive neutrality is a fundamental [principle] of the Commission's universal service policies."); *see also First Universal Service Order*, 12 FCC Rcd at 8801-02, ¶ 48 (stating that competitive and technological neutrality "will ensure that [regulatory] disparities are minimized so that no entity receives an unfair competitive advantage that may skew the marketplace or inhibit competition by limiting the available quantity of services or restricting the entry of potential service providers"); 47 U.S.C. § 254(h)(2) (directing the Commission to create "competitively neutral rules" to facilitate "access to advanced telecommunications and information services").

[140] *See First Universal Service* Order, 12 FCC Rcd at 8801-02, ¶ 48; *see also id.* at 8801, ¶ 47 (stating that it should be the case that "universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor disfavor one technology over another").

[141] *Id.* at 9183-84, ¶ 795; *see also Report to Congress*, 13 FCC Rcd at 11565-66, ¶ 133 ("[T]he public interest requires that, to the extent possible, carriers with universal service contribution obligations should not be at a competitive disadvantage in relation to providers on the basis that they do not have such obligations.").

[142] *See First Universal Service Order*, 12 FCC Rcd at 8802, ¶ 49 ("Technological neutrality will allow the marketplace to direct the advancement of technology and all citizens to

Finally, the universal service provisions of the Act require that every carrier contribute "on an equitable and nondiscriminatory basis."[143] Any decision to treat providers of VoIP services differently from traditional wireline carriers with respect to universal service obligations would be neither equitable nor nondiscriminatory.[144]

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benefit from such development."). As the Commission further explained, "the concept of technological neutrality does not guarantee the success of any technology supported through universal service support mechanisms, but merely provides that universal service support should not be biased toward any particular technologies." *Id.*

[143] 47 U.S.C. § 254(d); *see id.* § 254(b)*; see also NPRM* ¶ 63.

[144] Of course, not every entity that contributes to the universal service fund is eligible to receive universal service support. *See* 47 U.S.C. § 214(e) (only providers that are designated as "eligible telecommunications carriers" (or "ETCs") can receive universal service support). In order to qualify as an ETC for a particular service area, the carrier must demonstrate that it is able to meet certain statutory commitments and that its designation as an ETC is in the public interest. *See id*. In undertaking the "public interest" analysis, the Commission must look to the purposes of the support. In "high-cost areas," for example, support is designed to subsidize the high cost of the infrastructure necessary to serve those areas. The Commission therefore has held "that carriers that provide service throughout their service area solely through resale are not eligible for support." *First Universal Service Order*, 12 FCC Rcd at 8933-34, ¶ 290; *see also* 47 C.F.R. § 54.201(i). For the same reasons, to the extent that VoIP providers rely on facilities and infrastructure of other carriers and do not provide such facilities themselves, it would not be in the public interest to have them be designated as ETCs. Indeed, allowing these non-facility-based VoIP providers to collect universal service payments would constitute a windfall, while at the same time diluting the support for the very carriers that are required to bear the high cost of providing the facilities used to carry the VoIP service. *See First Universal Service Order*, 12 FCC Rcd at 8933-34, ¶ 290. ("When one carrier serves high cost lines by reselling a second carrier's services, the high costs are borne by the second carrier, not by the first."). In addition, because an ETC must use universal service support "only for the provision, maintenance, and upgrading of facilities and services for which the support is intended," 47 U.S.C. § 254(e), all non-facility-based providers would appear to be ineligible for such support under the terms of the Act. Moreover, services that are assessed for purposes of universal service contributions do not necessarily satisfy the definition of core services for which universal service support is appropriate. For example, although DSL revenues are counted for purposes of assessing contribution levels under the Universal Service Program, such services are not eligible for universal service support. *See* Order and Order on Reconsideration, *Federal-State Joint Board on Universal Service*, 18 FCC Rcd 15090, 15093, ¶ 8 (2003) (stating that "we decline to expand the definition of supported services to include advanced or high-speed services at this time"). Thus, just because a carrier is an ETC does not mean that its VOIP offering would be automatically eligible for support.

2. To Ensure Competitive Neutrality and to Prevent Unfair Competition in the Marketplace, All Providers Should Have the Same Universal Service Fund Obligations.

The Commission should stay with its current approach when setting contribution rules for VoIP services and ensure that all providers have the same obligations to contribute to the universal service fund. Under the Commission's current rules, all carriers are required to contribute, even if they are only resellers.[145] Indeed, the Commission has found no basis for exempting non-facility-based carriers from universal service obligations. *See Report to Congress*, 13 FCC Rcd at 11562-63, ¶ 129.

Allowing VoIP service providers to escape universal service obligations simply because they are non-facility-based would conflict with the principles of technological and competitive neutrality underlying the universal service program. Freed from universal service obligations, non-facility-based VoIP providers would enjoy a competitive advantage over facility-based VoIP providers. This would not only skew the market in favor of the non-facility-based providers but would also reduce the incentive for VoIP providers to build new facilities to provide VoIP. The Commission has sought to avoid adopting contribution schemes that allow carriers to circumvent universal service obligations simply by changing their business practices.[146] For all of the

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[145] *See Universal Service First Report and Order*, 12 FCC Rcd at 9179, ¶ 787; *Report to Congress*, 13 FCC Rcd at 11562-63, ¶ 129 & n.304 (noting that resellers that are telecommunications carriers are mandatory contributors under the Act, and that "[t]o the extent that a resale carrier is not offering telecommunications on a common carrier basis or offering interstate telecommunications services and, thus, does not fall within section 254(d)'s mandatory contribution requirement, the Commission would determine whether, pursuant to its permissive authority, it would be in the public interest for the reseller to contribute"); *see also* 47 U.S.C. § 153(46) (defining "telecommunications service" as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, *regardless of the facilities used*") (emphasis added).

[146] *See Report to Congress*, 13 FCC Rcd at 11566, ¶ 134 (requiring non-common carriers to contribute to universal service because absent such a requirement, "a service provider might

reasons discussed above, the Commission should ensure regulatory parity of universal service obligations on all VoIP providers; otherwise, the Commission may create regulatory disparities and their concomitant market distortions. *First Universal Service Order*, 12 FCC Rcd at 8801-02, ¶ 48; *see also Report to Congress*, 13 FCC Rcd at 11565-66, ¶ 133.

Moreover, requiring all VoIP providers to contribute to universal service promotes the "tenet that the class of entities required to contribute to universal service should be broad." *Report to Congress*, 13 FCC Rcd at 11560, ¶ 124. As discussed above, broadening the contribution base serves the public interest by lessening the burden on other contributors. *See id.* at 11565, ¶ 132 ("[T]he public interest requires a broad contribution base so that the burden on each contributor will be lessened."). An additional concern is that the relative ease of offering a VoIP service could leave universal service funding levels vulnerable if such providers are not required to contribute their fair share. Adopting uniform contribution rules would serve Congress's goal to preserve universal service and ensure that the funding levels remain predictable and sufficient, even as the use of VoIP continues to grow.

3. Universal Service Obligations Apply to VoIP Services Regardless of Whether They Are Classified as Telecommunications Services or Information Services.

A provider's universal service obligations should not depend on the regulatory classification of VoIP. The Commission should impose the same universal service obligations on VoIP providers, whether or not those services are classified as telecommunications services or information services.

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choose to offer service on a non-common carrier basis solely to circumvent the obligation to contribute"); *see also First Universal Service Order*, 12 FCC Rcd at 9208-09, ¶ 850 (noting that a contribution scheme not based on end user revenues could result in uneconomic substitution as carriers change their business practices to minimize their universal service payments).

To the extent VoIP is classified as a telecommunications service, VoIP providers would be required to contribute to the universal service fund. Section 254(d) mandates that "[e]very telecommunications carrier that provides interstate telecommunications services *shall* contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service." 47 U.S.C. § 254(d) (emphasis added).[147] Indeed, "[t]he plain language of section 254(d) . . . affords the Commission no discretionary authority to exempt any telecommunications carriers that provide interstate telecommunications services." *Report to Congress*, 13 FCC Rcd at 11562-63, ¶ 129.

The Commission also has authority to require certain VoIP providers to contribute to the universal service fund if the Commission classifies certain VoIP services as information services. Under section 254(d) of the Act, the Commission has authority to require contribution from "other providers of telecommunications . . . if the public interest so requires." 47 U.S.C. § 254(d). The Act defines "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." *Id.* § 153(43). Because VoIP providers that allow their customers to connect with the PSTN are providing telecommunications – transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received – they fall within the class of entities that may be required to contribute.

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[147] A "telecommunications carrier" is generally defined under the Act as "any provider of telecommunications services." 47 U.S.C. § 153(44).

A VoIP service that connects with the PSTN requires the use of telecommunications (*i.e.*, transmission over the PSTN) to complete the call. Thus, when a VoIP customer either makes a call to, or receives a call from, the PSTN, the VoIP provider is required either to use its own facilities or to purchase (and then resell) the use of facilities of another provider. In that respect, the VoIP provider is "providing" telecommunications as part of its VoIP service.[148] Thus, because any VoIP provider that allows its customers to receive from, or make calls to, the PSTN provides both the VoIP service and telecommunications, the Commission has permissive authority under section 254(d) to require that VoIP provider to contribute to the universal service fund. The fact that a VoIP provider may be providing telecommunications as part of an information service does not change that carrier's universal service contribution obligations.[149] And, for the reasons discussed above, it would be in the public interest for the Commission to require VoIP providers to contribute to the universal service fund regardless of whether their VoIP service is classified as a telecommunications service.

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[148] *See U S West Communications, Inc. v. FCC*, 177 F.3d 1057 (D.C. Cir. 1999) (a company "provides" a service even when it is only marketing the services of another). The *Pulver Order* is not to the contrary. As the Commission noted therein, the Commission's analysis relied specifically on Pulver's representation that it did not provide its customers with access to the PSTN. *See Pulver Order* ¶ 2 n.3. Thus, the Commission's conclusion that "Pulver does not offer transmission service to its members," *id.* ¶ 14, is inapposite with respect to VoIP services that connect to the PSTN.

[149] *See Report to Congress*, 13 FCC Rcd at 11530, ¶ 60 ("It is plain, for example, that an incumbent local exchange carrier cannot escape Title II regulation of its residential local exchange service simply by packaging that service with voice mail.").

CONCLUSION

The Commission has an extraordinary opportunity in this proceeding to establish a forward-looking, deregulatory environment for IP-enabled services – one that will encourage the kinds of investment, innovation and risk-taking that may truly revolutionize the way Americans communicate with one another in the years ahead. By allowing IP-enabled services to develop free from traditional economic regulation and imposing discrete requirements only when necessary to support specific policy objectives, the Commission will allow competition to flourish and ensure that this new market is not distorted by lopsided requirements applicable only to a subset of market participants

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May 28, 2004

Exhibit A

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
IP-Enabled Services	)	WC Docket No. 04-36
	)	

JOINT DECLARATION OF MARILYN H. O'CONNELL,
ERIC J. BRUNO, and STUART D. ELBY

1. My name is Marilyn H. O'Connell. My business address is 1095 Avenue of the Americas, New York, New York 10036. I am employed by Verizon Service Organization Inc. as Senior Vice President - Broadband Solutions. My responsibilities include leading the development and deployment of products enabled by Verizon's Fiber to the Premises (FTTP) infrastructure. These include data and video applications. I am also responsible for new technologies such as Voice over Internet Protocol (VoIP), and for Verizon's DSL product line.

2. Prior to assuming my current responsibilities, I was Vice President – Marketing Services. My responsibilities included analyzing marketplace information and developing long-term strategies and plans for the residential and general business market segments. From 1984 through 2000, I held positions of increasing responsibility in marketing and product management, public communications, and consumer services for GTE and Verizon. I have more than 25 years of experience in sales, marketing, and product management. I graduated from the University of Kansas and hold an MBA from Pepperdine University.

3. My name is Eric J. Bruno. My business address is 1095 Avenue of the Americas, New York, New York 10036. I am employed by Verizon Service Organization Inc. as Vice President – Product and Portfolio Management for Verizon Enterprise Solutions Group. My

responsibilities include product management, portfolio management, lifecycle management, forecasting, and market program prioritization for all of the products and services Verizon offers to its largest business and government customers.

4. Prior to assuming my current responsibilities, I was Vice President – IP Offer Management. In this position, I was responsible for Internet Protocol (IP) offer planning and development, lifecycle management, forecasting, pricing, and implementation. I have more that 15 years experience in the communications industry, with significant assignments in business market strategy, competitive planning and response, market management, large business sales, and long distance. I received a BA in Public Policy and Philosophy from Duke University.

5. My name is Stuart D. Elby. My business address is 500 Westchester Avenue, White Plains, New York 10604. I am employed by Verizon Services Corp. as Vice President - Network Architecture and Enterprise Technologies in Verizon's Technology Organization. My responsibilities include overseeing Verizon's wireline network architecture, network design and platform development, including optical transport, fast packet and ethernet switching, IP/MPLS routing, and emerging VoIP technologies.

6. Prior to joining NYNEX in 1993, I was a Research Associate at the National Science Foundation's Center for Telecommunications Research at Columbia University. In that role, I was responsible for leading research in optoelectronic devices, all-optical network architectures, and developing early wave division multiplexed (WDM)/ATM network platforms. I was Co-Director of a multi-university research program on all-optical packet switched networking, and collaborated with Teachers' College in the development and deployment of New York City's multi-media educational network for primary and secondary schools. I received a BS degree in Optical Engineering from the University of Rochester, New York, in

1982, and received a MSEE, M.Phil., and Ph.D from Columbia University in 1989, 1992, and 1994, respectively.

I. Purpose

7. The purpose of our declaration is to describe some of the capabilities and characteristics of IP-enabled services, including examples of such services that Verizon is already offering or has announced. We also describe the competitive market in which those services are, or will be, offered. In addition, we discuss the effects that current regulations have on the design and development of new services, and why it is critical that IP-enabled services not be subjected to traditional common carrier economic regulation.

8. We show that IP technology offers efficiencies and the ability to develop new and customized services to meet a variety of customer needs. But current regulations designed for traditional circuit-switched networks and the industry of the last century hinder the development of new services, increase their cost and complexity, and prevent Verizon from being able to respond to customer needs.

II. Capabilities and Characteristics of IP-Enabled Services

9. IP-based networks utilize packet switching, which breaks up all information to be transmitted, whether voice, data, video, or other information, into individual packets. Each packet is labeled with information that enables the packet to reach its final destination where the communication is reassembled. Packets may travel over different routes to reach the ultimate destination, each one being routed over the most efficient path. Indeed, as the Commission has noted, even two packets from the same communication may travel over different physical paths through the network to the ultimate destination. [Report to Congress, *Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, ¶ 64 (1998)] But no network resources are tied up by

the communication when there is no information to be sent – for example, during a voice call between two end users when neither party is speaking. Because no pre-determined network resources are reserved for the packets, packet networks are sometimes referred to as "connectionless."

10. By contrast, in the traditional circuit-switched environment, each communication requires a dedicated connection – a circuit – to be established and maintained between the originating and terminating points of the communication for the duration of the call, regardless of whether information is actually being transmitted at any particular moment during the call. Because the network resources involved in the circuit for a particular call are unavailable for other use during that call, even when no information is being transmitted, the circuit-switched network is less efficient than the packet-switched connectionless network, especially for "bursty" traffic, such as web page browsing or ethernet local area network (LAN) traffic.

11. IP networks also differ from conventional voice and data networks in their open services architecture. An open services architecture, based on standards and open industry agreements (e.g., Internet Engineering Task Force (IETF) or Multiservices Switching Forum (MSF)), allows services to be developed and offered separately and independently from the underlying IP platform. This difference is illustrated by comparing Voice over IP (VoIP) softswitching with traditional circuit-switched networks. In the traditional circuit-switched network, the voice features are tightly integrated with the central office switching equipment. New feature development is controlled by the small number of vendors that provide these switches, limiting time to market, innovation and true competition, and differentiation in the services market.

12. In the open services architecture enabled by the IP network, the service architecture is no longer tied to traditional Central Office locations. Instead, network-provided services and intelligence are provided by software applications running on commercial, off-the-shelf servers that attach to the underlying IP network elements using open, standard interfaces. This approach allows the service provider to deploy as centralized or as distributed a network architecture as is deemed appropriate by the service provider and customers. The open services application environment, leveraging the ubiquity of IP, allows multiple software development companies to create innovative network communications applications and customize services in response to particular customer needs.

13. IP-enabled services consist of IP networks and their associated capabilities and functionalities (i.e., an IP platform), and services and applications provided over an IP platform or for which an IP capability is an integral component. They also include services and applications that enable an end user to send or receive a communication in IP format. The communication may be voice, data, video, or any other form of communication that is sent to or received by the end user in IP over an IP infrastructure.

14. IP-enabled services may use the public Internet or private ("managed") IP networks (which may include proprietary interfaces and features). They may be provided by any type of communications provider, including telephone companies (ILEC or CLEC), cable companies, wireless providers, satellite companies, powerline companies, ISPs, equipment manufacturers or others that may or may not be considered "carriers." IP platforms may use copper, coaxial cable, fiber, spectrum, or another medium, or a combination of media. IP-enabled services may be provided over broadband or dial-up connections – "speed" or bandwidth is not a limiting characteristic.

15. IP-enabled services can offer customers significant cost savings and efficiencies. For example, large businesses today typically operate separate voice and data networks for their organization, which means they must employ both in-house information technology and telecommunications professionals to manage and maintain the networks. IP permits the convergence of services that have traditionally been carried on separate networks – voice, data, and video can be consolidated on a single network. This permits businesses to save costs because they only need to manage one network, rather than two or more different networks. In addition, converged networks can be less complex to manage for both customers and service providers. This can help further reduce costs and foster increased investment and innovation.

16. The use of Internet Protocol also enables a wide range of useful and innovative services and applications. It can offer businesses private dialing plans, remote user applications, unified messaging, audio conferencing, instant messaging, and find me/follow me capabilities. It also permits, for example, business partners to review and edit the same document simultaneously on their computer screens while they discuss it.

17. In addition to traditional telecom features such as call waiting, caller ID, and 3-way calling, consumers will also see a variety of new services and applications. For example, they will be able to check voicemail through the web and receive voicemails in the form of email messages with sound files attached that can be saved or emailed to someone else. They will have enhanced call screening and call forwarding functionality, enabling them to direct some calls straight to voicemail and others to come through. Consumers can manage their calls by configuring settings that allow certain people to reach them while others, for example, are forwarded to voicemail or sent a “do not disturb” message. Teenagers in different locations will be able to play multi-person video games and talk about the game at the same time.

18. Verizon has recently announced that it is rolling out several IP-enabled services. Below, we describe those services and the market environment in which Verizon is operating.

19. IP-VPN – Verizon's Internet Protocol-Virtual Private Network (IP-VPN) is a service primarily targeted to large business, education, and government customers. It allows customers economically to integrate data and packetized voice over a single network with Quality of Service traffic management. This IP-VPN network utilizes an advanced technology called Internet Protocol/ Multi-protocol Label Switching, which enables the customers' different legacy systems to function as part of the same network and provides differentiated quality of service and traffic engineering in order to assure the appropriate levels of services are maintained for each traffic type. Verizon IP-VPN Service also allows customers to provide the benefits and flexibility of the integrated network to their own multiple locations, their business partners, and their remote users in multiple locations. Attachment 1 to our declaration is a copy of Verizon's press release announcing the launch of IP-VPN service.

20. IP-VPN solutions can be network based or CPE based. Numerous domestic and international competitors provide IP-VPN offerings. AT&T now claims to have the "#1 IP/VPN presence in the U.S." and states that it "will be the industry leader" in VoIP.[1] MCI still operates one of the largest IP backbones in the world, and claims that "Private IP is our fastest growing service."[2] Numerous other competing carriers have also deployed IP services for enterprise customers. For example, according to one industry research firm, the top ten IP-VPN providers in terms of market share collectively have only about 40 percent of the IP-VPN market, and there

[1] Bill Hannigan, President, AT&T, *AT&T Business Overview: The Networked Enterprise* at 14 (Feb. 25, 2004).

[2] C. Marsan, *MCI Rolls Out Convergence Services*, NetworkWorldFusion (Apr. 5, 2004), http://www.nwfusion.com/newsletters/isp/2004/0405isp1.html (quoting Jim DeMerlis, VP, Data and IP Services, MCI).

are dozens of other providers.[3] Because there are so many providers, all with relatively small market shares, there is no dominant provider for this product. Verizon is a new entrant into this competitive market.

21. iobi[sm] – Later this year, Verizon will launch iobi[sm], a service that enables businesses and consumers to manage their phone calls, voicemails, calendar, address book, and emails using a single interface from their desktops or laptops. For example, when a customer's phone rings, a pop-up message simultaneously appears on his or her computer screen with Caller ID-type information about the call, and options for handling the call. The customer might be in her Washington, D.C. office and receiving information about a call coming into her New York office. She could forward the call to her D.C. office phone, to her cell phone, or to voice mail. Similarly, a voicemail message left on a wireline phone number can be retrieved online to allow the customer to listen to voicemails in any order he/she chooses. Also, voicemail messages may be saved as a file and forwarded as an e-mail attachment. In the future, customers will be able to access iobi from other devices such as a PDA, as well as use advanced features such as "click to dial" – a feature that allows a user to make a call with one click from their address book. Attachment 2 to our declaration is a press release that includes the announcement of iobi[sm].

22. iobi works with the existing wireline network using dial-up access or with broadband. The customer accesses the service using a web browser, connected to a web server, a client loaded on their desktop, or a voice portal. For consumers, iobi pulls together a number of features and functions already offered by many other providers. For example, AOL, Sprint's

[3] *See* H. Goldberg, In-Stat/MDR, *VPNs Take a New Look: Trends in the US IP VPN Services Market* at Table 5 (Jan. 2004). According to In-Stat/MDR, the top 10 providers are AT&T, MCI, SAVVIS, Level 3, Sprint, Qwest, Equant, Infonet, XO and SBC. AT&T has over 10 percent of the market; MCI and SAVVIS each have about seven percent and no other provider has more than five percent.

Messenger Service, and Microsoft's MSN offer instant messaging services; AOL offers a call alert service; and AOL and Sprint offer the ability to retrieve voice mails as e-mails. For the business customer, iobi offers features on a stand-alone basis that many providers offer as part of hosted IP-PBX services. As the VoIP Fact Report[4] explains, IP-PBXs now represent approximately 30 percent of new PBX line shipments, and are expected to grow by at least 35 percent in 2004. Verizon's iobi will be a new entrant into this already competitive field.

23. VoIP – Verizon also expects to launch voice over IP services for the consumer, small business, and large enterprise markets. Of course, the features, characteristics, and capabilities of each of these services will be geared to the demands of the particular market segment they are designed to serve.

24. VoIP is already available to any customer who has access to a broadband connection. Cable companies themselves are deploying VoIP. As the VoIP Fact Report shows, 80 percent or more of U.S. households will be able to obtain VoIP from cable within two years. For example, Cablevision offers VoIP to more than 4 million cable homes passed in metropolitan New York, southern Connecticut, and New Jersey. Time Warner has deployed IP telephony in seven of its markets, and plans to make it available to nearly 19 million homes by the end of 2004. Comcast recently announced that it will offer VoIP to more than 40 million homes by 2006. Cox already offers circuit-switched voice service to more than half of the 10 million homes it passes. It has begun offering VoIP in Roanoke, Virginia and has said it will offer service in additional markets later this year. And even if the cable company is not yet

[4] *See* Competition in the Provision of Voice Over IP and Other IP-Enabled Services: Prepared for and Submitted by BellSouth, Qwest, SBC, and Verizon, *In the Matter of IP Enabled Services*, WC Docket No. 04-36 (May 28, 2004) ("*VoIP Fact Report*").

offering VoIP to some customers, any customer who has access to cable modem service can get VoIP.

25. In addition, there are many other competing VoIP providers already in the market. They include IXCs, CLECs, new competitors such as Vonage, and ISPs. AT&T launched its CallVantage service in March 2004, and is targeting 1,000,000 users by the end of 2005. MCI has said that it will launch a consumer voice-over IP service in 2004. Z-Tel has told investors it is "moving to VoIP from UNE-P." *See* VoIP Fact Report.

26. Vonage, the largest of the new providers, currently offers local numbers in more than 1,900 rate centers in approximately 120 U.S. markets. Vonage claims that it is adding more than 20,000 lines per month to its network. And all of the major instant messenger software programs from Microsoft, Yahoo, and AOL offer VoIP capabilities.

27. Verizon will be competing against established providers for business customers as well. As the VoIP Fact Report notes, one recent survey reports that 45 percent of large businesses and 23 percent of medium-sized businesses are now using VoIP, with the totals expected to rise considerably (to 65 percent and 39 percent, respectively) by the end of 2004.

III. Effect of Traditional Regulation on Service Development

28. As shown above, IP technology has enabled many providers to offer a wide variety of services to consumers and business customers of all sizes. More important, the providers of these services are not dependent upon networks provided by former Bell companies. As discussed above and in the VoIP Fact Report, the network technologies the providers or their customers use typically are broadband services. The leading providers of these services are cable companies that provide cable modem service. In the largest business and government customers segment, traditional long distance providers, AT&T, MCI, and Sprint, are the leading

providers. Verizon is a new entrant in offering IP-enabled services and clearly does not have market power. As a result, the foundation for traditional regulation applied to Bell companies, such as Computer Inquiry rules – including, without restriction Open Network Architecture ("ONA") and Comparably Efficient Interconnection ("CEI") requirements – is absent, and there is no justification for the continued application of these rules and requirements or for the application of any traditional Title II economic regulation to IP-enabled services. As we explain below, application of these rules to IP-enabled services impedes the development of services and the ability to meet customer needs; as a result, it hinders competition and carrier investment.

29. The Computer Inquiry, CEI, and ONA rules impose sub-optimal design requirements on Verizon and other Bell companies. In past decades, equipment manufacturers designed central office equipment based on the needs of the Bell companies. Today, as shown above and in the VoIP Fact Report, the market leaders in IP-enabled services are other providers that do not face the regulatory constraints of separating the physical components of their services based on regulatory distinctions, and manufacturers are designing next generation equipment for them. The packets that IP technology relies on do not distinguish between various types of information such as voice or data. Moreover, as noted above, in the softswitch architecture used for IP networks, the services and network intelligence are distributed and routed among various components of the IP network, rather than being focused in central office switches. As a result, the distinctions between "basic" and "enhanced" services are not relevant in an IP services environment. For example, in VoIP offerings, disparate capabilities such as voice mail, web collaboration, instant messaging, calendar, conferencing, basic voice and custom calling features are all provided on an integrated basis via servers in the IP network. In this context, a requirement to identify a basic service makes no sense, and even if it could be done, altering the

network just to separate it as a unique network element, and creating new back-office systems to support it, destroys the cost efficiencies gained by using the technology, and increases operation costs with no corresponding benefits.

30. The delays and costs associated with tailoring the equipment that is designed for the market leaders to meet Verizon's (and other Bell companies') regulatory needs, along with the forced adoption of less-than-optimal network designs solely to meet regulatory requirements, hamper Verizon's ability to develop new services and applications. In some cases, these burdens may result in a decision not to offer the new technology at all. This harms consumers by limiting the services that these companies choose to offer and by increasing the cost of those that they do.

31. The Computer Inquiry rules also limit Verizon's ability to tailor solutions to meet customer needs. Under the Comparably Efficient Interconnection (CEI) and tariffing rules, Verizon must offer "one-size-fits-all" products and services, and cannot readily respond to ISP requests for more efficient network solutions, such as the provision of customized enhanced protocol conversion functions performed within Verizon's network on behalf of an individual ISP.

32. Similarly, the Computer Inquiry rules may require Verizon to offer mass-market solutions, even when there is no market demand for such products and services. IP networks allow certain enhanced functions to be performed closer to the end user customer, enhancing an ISP's overall service capabilities. However, under the Computer Inquiry rules, Verizon would have to develop a new generic service offering that could be made available to any other requesting ISP, and potentially create new access points within its network, even if only a limited number of ISPs are interested in the configuration, and tariffs would have to be filed in accordance with the Commission's review process. This effectively restricts Verizon to offering

a limited set of service configurations and wholesale broadband prices using the same technology for all ISPs. Alternatively, it may force Verizon to provide more enhanced functionalities through separate affiliates which adds to the overall complexity and cost of providing the service to the customer.

33. The Computer Inquiry rules also cause service offerings to become complex and confusing to the customer. While tariffs are required for services determined to be basic under the rules, other features and capabilities are not tariffed. This results in multiple rate applications (basic vs. enhanced/tariffed vs. contract) for a service the customer perceives as, and wants to purchase as, an integrated package. This disjointed approach can lead to customer confusion and frustration.

34. The ONA/CEI rules also include obligations to track and report on installation, maintenance, and repair intervals; to provide end-user access to signaling and derived channels; to impute tariffed rates for short cross-connections; and to comply with various unnecessary accounting procedures. These rules are burdensome and have long out-lived any useful purpose for which they might have been created. They should be eliminated.

35. Traditional Title II economic regulation also should not be applied to IP-enabled services. As shown above and in the VoIP Fact Report, Verizon is not a "dominant" player in the provision of IP-enabled services, and there is no reason to subject those services to traditional Title II economic regulations. The tariff and costing rules contribute significantly to the delay in introducing new IP-enabled services to consumers. Mandatory tariffs may reduce carriers' ability to respond efficiently to changes in demand and cost and impose substantial administrative costs. They limit the ability of customers to negotiate and obtain service arrangements specifically tailored to their needs. They also inhibit carriers from introducing new

services and responding to new offerings by rivals, because such competitors obtain advance notice of the tariffed carrier's services and promotions and can respond by undercutting the new offerings even before the tariff becomes effective. Consequently, tariffs should be optional, and, if filed, should become effective on one day's notice. In addition, allowing services to be offered free of Title II regulation will allow carriers to offer IP-enabled services that can better compete against their well-financed, entrenched competitors.

36. The Commission also should eliminate any requirement that rates for IP-enabled services be cost-justified or be comparable to traditional circuit-switched wireline benchmarks. Unlike its competitors, Verizon often must develop and file detailed cost support, and provide an extensive analysis of charges assessed by its competitors for similar services. Verizon also faces the prospect of third parties, including competitors, challenging its filings, and of having to devote time and effort to developing and filing rebuttals to such challenges. Eliminating such requirements will allow carriers to experiment with market-based pricing models, such as pricing based on revenue sharing or on the number of visits to a given Web site – methods already available to non-telco competitors.

Conclusion

37. IP technology offers the possibility of a wide variety of new and innovative services designed to meet the particular demands of consumers and small, medium, and large business customers. Already, numerous providers, including telephone companies (ILEC or CLEC), cable companies, wireless providers, satellite companies, powerline companies, ISPs, equipment manufacturers and others, are offering services to some or all of these customer groups, and more providers are poised to enter the market. In these circumstances, the Commission should not extend traditional Title II economic regulations and the Computer

Inquiry rules to IP-enabled services; they are not only unnecessary, but affirmatively harmful to innovation and competition, and impede the ability of Verizon and others to meet customer demands.

38. This concludes our declaration.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on May 18, 2004

Marilyn H. O'Connell

Marilyn H. O'Connell

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on May 28, 2004

Eric J. Bruno

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on May 28, 2004

Stuart D. Elby

Attachment 1

News Release

Verizon Puts New National Backbone to Work With Launch of IP-Based Virtual Private Network Service

Advanced Service Enables Customers to Integrate Voice, Data and Video Networks

May 10, 2004

Media contacts:
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NEW YORK - With its national broadband backbone in place, Verizon has launched long-haul Internet protocol virtual private network (IP-VPN) service to support its largest business, education and government customers. By offering the new service - which enables customers to economically integrate their communications over a single network - Verizon can now compete directly with other national carriers in the growing market for IP-VPN service.

Virtual private networks use packet-switching technology to transmit data and voice over a shared network while providing many of the features and benefits of a private network created specifically for a customer.

According to Veronica Pellizzi, senior vice president of sales for Verizon Enterprise Solutions Group, "Customers increasingly are looking at IP services to simplify their networks, drive cost efficiencies, support advanced applications, and improve their ability to bring products and services to market more quickly.

"Traditionally, they have relied on Verizon for local and regional networking expertise," she said. "Now, rather than turning to another national carrier, customers can count on Verizon to meet their national networking requirements and help them integrate their voice and data services."

Verizon's new network employs a technology called multiprotocol label switching (MPLS), which enables customers to use the Verizon IP-VPN service with their existing communications and avoid the expense of purchasing new systems.

The introduction of IP-VPN service is part of Enterprise Advance, Verizon's initiative to deploy advanced networks and services to meet the national communications requirements of large-business, or enterprise, customers. Since announcing Enterprise Advance in November 2002, Verizon has interconnected its local and regional networks, deployed a national IP-based backbone, and launched several national data services.

Verizon's new service is available now in select Northeast and mid-Atlantic areas and will expand through the summer to Verizon markets in the South and West.

According to Yankee Group, an industry research firm that analyzes communications trends, IP-VPN services are expected to grow at a

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compounded annual rate of 38 percent from 2003 through 2008 as customers address increasing decentralization of operations and integrate their IP-based applications on a single network.

Verizon offers IP-VPN with two service quality options - basic and premier. Customers choose the option that best meets their requirements for connecting remote offices or branches to headquarter locations or data centers. Verizon also supports IP-VPN service with service-level agreements (SLAs) for both the local and long-haul portions of the company's network. The new IP-VPN service supports standard industry routing protocols, as well as Cisco's proprietary Enhanced Interior Gateway Routing Protocol (EIGRP).

To facilitate the ordering and provisioning of IP-VPN, Verizon has invested over $15 million to deploy an automated provisioning process.

Verizon Enterprise Solutions Group manages the design, operation and maintenance of end-to-end integrated network solutions for large business, government and education customers across the United States. With over 7,200 employees in 35 states, Verizon Enterprise Solutions Group offers a complete range of basic and advanced communications products and services to meet the voice, video, data and IP-related needs of its customers. In addition, over 5,200 field operations personnel support enterprise customers nationwide. In the enterprise market, Verizon Select Services Inc. provides Verizon long-distance service, including interLATA IP-VPN service. For more information on products and services available through Verizon Enterprise Solutions Group, visit www.verizon.com/enterprisesolutions.

Verizon Communications

A Dow 30 company, Verizon Communications (NYSE:VZ) is one of the world's leading providers of communications services, with approximately $68 billion in annual revenues. Verizon companies are the largest providers of wireline and wireless communications in the United States. Verizon is also the largest directory publisher in the world, as measured by directory titles and circulation. Verizon's international presence includes wireline and wireless communications operations and investments, primarily in the Americas and Europe. For more information, visit www.verizon.com.

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Attachment 2

News Release

Verizon Outlines Leadership Strategy for Broadband Era; Announces Major New 3G Mobile Data and Wireline IP Network Expansions

Verizon Chairman and CEO Ivan Seidenberg, at the Consumer Electronics Show, Says Company Will Invest $3 Billion Over Next Two Years to Bring Broadband to Mass Market

Jan. 8, 2004

Media contacts:
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LAS VEGAS -- Verizon Chairman and CEO Ivan Seidenberg today unveiled the company's plans for leadership in the emerging broadband industry. He outlined two major new network expansions that are key to bringing the benefits of this new era to homes and businesses across America and said Verizon was committed to investing a total of $3 billion in its networks over the next two years to bring broadband to the mass market.

To illustrate Verizon's unique ability to lead in the broadband revolution, Seidenberg also announced a new service, iobi^{sm}, and new product, Verizon One, that will help families and businesses create a personal network to manage their communications devices and activities.

The network expansion initiatives involve both Verizon's wireless and wireline networks. Verizon Wireless will expand its third-generation (3G) mobile data BroadbandAccess network nationwide. In addition to its ongoing annual capital investment program to build network capacity and coverage, the company will invest $1 billion over the next two years to further deploy its broadband technology, known as EV-DO (Evolution-Data Optimized).

Verizon also will dramatically accelerate the evolution of its nationwide wireline network to packet-switching technology and, as announced yesterday, has selected Nortel Networks as its voice over Internet protocol (VoIP) equipment provider.

Both moves are major steps toward creating a new growth-market for communications services in the wireless and broadband era. Seidenberg will outline the company's plans and Verizon's vision for the future in an address scheduled for 2:30 p.m. PST today at the Consumer Electronics Show in Las Vegas.

"For the last decade, we've been steadily reinventing our networks, products and culture to be ready for the wireless and broadband era," Seidenberg said. "Verizon has invested some $55 billion in infrastructure since 2000 -- more capital than almost anyone in America -- to move toward our vision of an integrated, high-speed multimegabit network that will support applications that will fuel the growth of the entire high-tech industry in the future. The network expansions we're now announcing, along with the new products and services they will deliver, further underscore our commitment to being a broadband technology leader."

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Verizon Wireless To Expand 'BroadbandAccess' Nationwide

Verizon Wireless will begin immediately to expand its BroadbandAccess service nationally. Powered by its Evolution-Data Optimized (EV-DO) third-generation (3G) wide area network, BroadbandAccess will be phased in nationally over the next two years.

With average user speeds of 300-500 kilobits per second, BroadbandAccess is the fastest commercial wide-area wireless data technology available today and is based on CDMA technology. Proven to be the most versatile and cost-effective wireless technology in the marketplace, BroadbandAccess will be available to business and individual customers beginning in the summer of 2004 throughout significant portions of the Verizon Wireless national footprint, and in additional markets through 2005. Verizon Wireless was the first U.S. wireless carrier to launch commercial wide-area wireless data service in major markets last fall.

Unlike with Wi-Fi, BroadbandAccess users don't have to be within a few hundred feet of a hotspot to have a true wireless high-speed connection. They can connect on the road, at the job site, in a taxi, on the train, or anywhere within the BroadbandAccess coverage area.

Verizon Communications To Create Nation's Largest Converged IP Network

Verizon also plans to begin replacing many of its traditional telecom switches with Nortel's VoIP equipment in its local and long-distance voice wireline networks later this year. As deployment gets under way, the company will offer one of the industry's most comprehensive suites of VoIP and multimedia services. The company expects that its next-generation network will be the nation's largest converged network, capable of simultaneously handling voice, data and video transmissions.

Verizon began deploying similar technology in its network in 1999, with VoIP gateway switches for some long-distance companies. In 2002, Verizon began installing similar technology in parts of the company's inter-city network and a year later deployed the technology in segments of the company's long-distance network.

Verizon's iobi^{sm} Service and Verizon One Device

To more immediately deliver additional benefits of broadband-based technology convergence to the marketplace, Verizon plans to launch new products and services in 2004 that give customers simple, seamless ways to integrate all their communications. These will include:

Verizon's iobi^{sm}: The iobi (eye-OH-bee) service uses the power and intelligence of all the Verizon networks - wireline, wireless, data or IP - to link a customer's various communication devices into one seamless, customized, personal communications network. It lets customers manage phone calls, voice mails, calendars, address books, e-mails and more, using wireline and wireless phones, computers, laptops and PDAs.

By using iobi, businesses and consumers will take total control of their communications. For example, what someone sends as a voice message from a landline or cell phone can be received as an e-mail or text message on a PDA or laptop, or redirected to a different phone line. As a smart network-based system, iobi knows where customers are and how they prefer to communicate at any given time and takes advantage of the information to make communicating easier.

Verizon will begin introducing iobi in 2004, adding new capabilities with

each release. The planned capabilities include:

- Real-time call management - customers decide how, where and if they want to receive calls and messages
- Call notifications on PCs and the screens of other devices
- Programmable call-forwarding so calls can follow customers wherever they go
- Interactive call and e-mail logs
- Automated "on demand" or scheduled conference calling
- Electronic contact information-sharing that updates automatically
- Click-to-dial contact of people at the touch of a mouse
- Multi-modal communications -- no matter how a message comes to a customer, the customer can decide how to receive it, including by e-mail, voice mail, text messaging and more

Verizon One: Verizon One combines a DSL modem and wireless router with a touch-screen computer and a contemporary, cordless telephone. Verizon One clears away the clutter of multiple devices, and is configured for iobi service to put the power of Verizon's networks at users' fingertips anywhere in their homes.

Customers can use Verizon One to:

- Call with one click from their address book or online directory assistance
- View information such as weather, movie show times or news
- Scroll through Verizon SuperPages.com to look up and call phone numbers
- View maps and driving instructions
- Use a memo pad to leave notes for the family
- Manage calls as they are received
- Use voice mail more efficiently
- Forward calls in real time, or on a pre-set schedule
- Manage contact lists and calendars

Verizon plans to introduce an initial version of Verizon One later in 2004.

Verizon Key to Delivering Benefits of Convergence

Looking ahead to 2004 and beyond, Seidenberg noted that, as Verizon continues making its networks faster and more powerful and introduces technology-based products and services, the company will play a key role in delivering the benefits of convergence to the marketplace.

"In 2003, we expanded DSL capabilities to 80 percent of our lines, and we continue expanding its availability today," he said. "With our plans for EV-DO, packet technologies and fiber-optic lines, Verizon will commit some $3 billion of capital over the next two years to bring broadband to the mass market. Verizon's next-generation networks will provide a common infrastructure for voice, data and video services. They will link to all kinds of devices - anywhere, anytime. And they will enable a whole new generation of flexible, highly reliable services that can ride on our infrastructure.

"Our goal is to let users tap the intelligence in our network wherever they are and put the power of two-way multimedia communications in people's hands," he said.

A Fortune 10 company, Verizon Communications (NYSE:VZ) is one of the world's leading providers of communications services, with approximately $67 billion in revenues. Verizon companies are the largest providers of wireline and wireless communications in the United States, with more than 139 million access line equivalents and 36 million Verizon Wireless customers. Verizon is the third largest long-distance carrier for U.S. consumers, with nearly 16 million long-distance lines. The company is also the largest directory publisher in the world, as measured by directory titles and circulation. Verizon's international presence includes wireline and wireless communications operations and investments, primarily in the Americas and Europe. For more information, visit www.verizon.com.

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NOTE: This press release contains statements about expected future events and financial results that are forward-looking and subject to risks and uncertainties. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. The following important factors could affect future results and could cause those results to differ materially from those expressed in the forward-looking statements: the duration and extent of the current economic downturn; materially adverse changes in economic and industry conditions and labor matters, including workforce levels and labor negotiations, and any resulting financial and/or operational impact, in the markets served by us or by companies in which we have substantial investments; material changes in available technology; technology substitution; an adverse change in the ratings afforded our debt securities by nationally accredited ratings organizations; the final results of federal and state regulatory proceedings concerning our provision of retail and wholesale services and judicial review of those results; the effects of competition in our markets; our ability to satisfy regulatory merger conditions; the ability of Verizon Wireless to continue to obtain sufficient spectrum resources; our ability to recover insurance proceeds relating to equipment losses and other adverse financial impacts resulting from the terrorist attacks on Sept. 11, 2001; and changes in our accounting assumptions that regulatory agencies, including the SEC, may require or that result from changes in the accounting rules or their application, which could result in an impact on earnings.

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Exhibit B

THE VERIZON TELEPHONE COMPANIES

The Verizon telephone companies participating in this proceeding are the following:

Bell Atlantic Communications, Inc. d/b/a Verizon Long Distance
Contel of the South, Inc. d/b/a Verizon Mid-States
GTE Midwest Incorporated d/b/a Verizon Midwest
GTE Southwest Incorporated d/b/a Verizon Southwest
NYNEX Long Distance Company d/b/a Verizon Enterprise Solutions
The Micronesian Telecommunications Corporation
Verizon California Inc.
Verizon Delaware Inc.
Verizon Florida Inc.
Verizon Hawaii Inc.
Verizon Maryland Inc.
Verizon New England Inc.
Verizon New Jersey Inc.
Verizon New York Inc.
Verizon North Inc.
Verizon Northwest Inc.
Verizon Pennsylvania Inc.
Verizon Select Services Inc.
Verizon South Inc.
Verizon Virginia Inc.
Verizon Washington, DC Inc.
Verizon West Coast Inc.
Verizon West Virginia Inc.