

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

In the Matter of)	
)	
Preserving the Open Internet)	GN Docket No. 09-191
)	
Broadband Industry Practices)	WC Docket No. 07-52

COMMENTS OF XO COMMUNICATIONS, LLC

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January 14, 2010

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XO Communications, LLC (“XO”), through its undersigned counsel, hereby respectfully submits its comments to the Federal Communications Commission (“FCC” or “Commission”) in response to the October 22, 2009, Notice of Proposed Rulemaking proposing to codify rules preserving the open Internet.¹ XO supports adoption of the rules as proposed.

I. INTRODUCTION AND SUMMARY

XO is a leading competitive facilities-based provider of innovative broadband telecommunications and information services to business, enterprise, and carrier customers throughout the United States. Over the past decade, XO has been a leader in network investment and service innovation while building its state-of-the-art nationwide network. XO’s network presently includes over 18,000 route miles of intercity fiber extending to 75 metropolitan markets in 23 states, a robust softswitch platform, approximately one million miles of metro fiber, more than 3,000 fiber-fed buildings, nearly 1,000 central office collocations, a large-scale Internet Protocol/Multi-Protocol Label Switching (“IP/MPLS”) network, and fixed wireless spectrum assets.

¹ *In the Matter of Preserving the Open Internet*, GN Dkt. No. 09-191, Notice of Proposed Rulemaking, 24 FCC Rcd. 13064 (2009) (“NPRM”).

XO uses its nationwide IP network, inter-city fiber optic network, extensive local metropolitan networks and broadband wireless facilities to offer a broad portfolio of broadband services, in addition to legacy TDM and circuit-switched services, including Voice over Internet Protocol (“VoIP”), data transmission, Internet access, network transport, hosting, fixed wireless access, and managed services.

Customers of XO’s competitive services represent a broad cross-section of businesses. XO provides services to half of the Fortune 500 companies, and to approximately 18,000 small businesses. XO’s carrier and wholesale service provider customers include 13 of the world’s 25 largest telecommunications companies, the five largest U.S. wireless companies, the five largest U.S. cable companies, and two of the top five most popular search engine companies, as well as many smaller service, content, and application providers. XO also serves Federal, state and local governments, regulatory agencies, and educational organizations throughout the country.

The growth of XO, which first launched service in 1996, has been concurrent with the explosive growth of the Internet, and more generally with the expansion of IP-based communication services. Significantly, the unprecedented development of Internet-based services and applications has occurred hand in hand with the emergence of competitive carriers like XO, who have been able to respond to opportunities made available by these marketplace developments with the dynamic mindset that is needed in this vibrant environment, especially as entrenched service providers have failed to deploy quickly and affordably the advanced services that businesses require. As Internet services and applications have grown and gained acceptance, they have helped generate new opportunities for network providers, such as enterprise cloud computing, VoIP and other services such as video telepresence, which in turn continue to create opportunities for all. Importantly, XO’s commitment to investment and innovation has helped

push incumbent service providers to innovate and invest more, spurring them to deploy network upgrades and new services in an effort to keep up with the offerings of competitive providers.

The proposed rules address and help counter the ability and incentives of legacy last-mile providers of broadband Internet access services to discriminate and shape network and traffic practices in ways that are detrimental to the continuing open development of the Internet and the growth of competitive network services. Consumer choice should be paramount, and success or failure driven by the value of each provider's services and features in response to market demands, rather than any ability to leverage a broadband access bottleneck over captive customers. By providing consumers continued unfettered access to the Internet's vast array of applications, services and content, and ensuring that consumers are not deprived of their entitlement to competition among network providers, the proposed rules promote these goals. Codified rules will help ensure that legacy broadband providers cannot pursue a strategy of profits through customer "ownership" instead of a strategy of investment, network expansion and innovation.

Adoption of the proposed rules, together with actions the Commission should take in other proceedings to promote broadband network competition, can be expected to increase XO's incentive to invest further in its broadband facilities, as customer demand increases along with overall service expansion and growth. Likewise, the managed services that XO offers are fully complementary with the open Internet. XO uses a shared IP/MPLS network infrastructure with ample capacity and capabilities to provide its customers both best-effort Internet access service and managed services with the quality-of-service ("QoS") features required by enterprise managed services customers. Significantly, with its managed services, XO follows a policy of

nondiscrimination so that customers are not treated differently from each other based on their affiliation or service mix.

It is a reasonable and sound exercise of its authority for the Commission to act now. In the wake of constant flux in the FCC's regulatory oversight and commitment to deregulation and competition, including years of service reclassifications and predictions about the future of markets and competition, litigation, and increasing questions about permissible broadband provider practices, there is today tremendous regulatory uncertainty. Adoption of the proposed rules will bring much-needed clarity and create a solid footing for increased investment and growth by all broadband network providers, helping to stimulate even greater positive "spillover" effects created by the development of new applications and services based on IP technologies. As part of the country's strong dedication, embodied in the Recovery Act of 2009,² to ensuring that all Americans have open, fast, and ubiquitous broadband access, the rules will bring us one step closer to a broadband-based Internet that continues the country on a path of growth, investment and leadership.

II. OPEN INTERNET RULES WILL PROMOTE INVESTMENT, INNOVATION, AND COMPETITION

A. XO's Experience Demonstrates that Competition Drives Innovation and Investment

XO exemplifies what all broadband providers should strive to be: an innovative and dynamic competitor that invests in its network in order to expand its capacity to serve an increasing array of existing and potential customers "at the edge." To date, XO has invested over \$7 billion in its network to provide customers broadband Internet access and other services critical to their businesses. Codification of the proposed rules is fully consistent with XO's plans

² American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) ("Recovery Act").

to invest and innovate in order to continue to meet the needs of its customers, many of which in turn help bring Americans the myriad services and other benefits made available by the broadband-driven Internet.

XO has established a substantial record of innovation and investment. As a percentage of its revenues, XO invests a significant portion (approximately 14%) in network expansion.³ Following the Commission's *Triennial Review Order*,⁴ XO committed to new Ethernet over Copper ("EoC") technologies to fulfill the needs of business users,⁵ many of whom were unable to obtain high speed and advanced services over next-generation fiber networks. Over the past five years, XO has invested substantially in its long-haul transport and IP networks, and expanded its footprint into new markets, with new physical collocations established in incumbent local exchange carrier central offices.

At the same time, XO lit its 18,000 route-mile long-haul transport fiber optic network, and overbuilt highly utilized segments of the network with new equipment to meet demand.

³ This figure compares favorably with much larger incumbent providers with whom XO competes, such as AT&T, which spends a far lower percentage on wireline network investments. See Brad Reed, *AT&T Earmarks \$11 Billion for Wireless, Wireline Broadband in '09*, Network World, Mar. 10, 2009, available at <http://www.networkworld.com/news/2009/031009-att-expands-3g.html> (AT&T planned to spend nearly \$11 billion to improve its 3G wireless and wireline broadband network in 2009 out of \$17 billion in capital expenses). Based on trailing twelve-month revenues of \$123.24 billion (see AT&T, Inc., Yahoo Finance, available at <http://finance.yahoo.com/q/ks?s=T>), it thus appears that AT&T spends less than 10 percent of its total revenues on its wireline and wireless networks combined.

⁴ *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Dkt. 01-338, Report and Order, Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd. 16978 (2003).

⁵ For example, the 2BaseTL standard, developed by the IEEE in cooperation with other standards bodies, provides business end users "symmetric" services, up to 40 Mbps. EoC technologies using the 2BaseTL standard may be provided over almost 90 percent of all copper facilities; mid-band Ethernet presently is capable of transmission speeds up to 50 Mbps, over copper loops up to 12,000 feet in length.

During 2007 and 2008, XO invested more than \$400 million in its network, increasing its capital expenditures by nearly \$100 million to launch its EoC technology and enhance its nationwide fiber network and related systems architecture, in order to serve more customers at higher speeds. XO deployed a 400 Gbps capability in 22 large carrier hotels (and in some instances upgraded capacity to such locations to 800 Gbps).

In 2008, XO expanded its network footprint of EoC to 75 major metropolitan markets to serve businesses with Ethernet services at speeds from 10 Mbps to 88 Mbps and has demonstrated 100 Gigabits/second Ethernet (100GE) service over its long-haul transport network. XO maintained its level of investment in its network and service offerings and expanded into new markets throughout 2009, expanding its metro fiber networks in Los Angeles and Northern Virginia. XO plans to continue investing in its long-haul transport and metro fiber networks and other infrastructure in 2010.

Codification of the proposed rules will not diminish XO's incentives to continue investing in its network, or its commitment to continue to push innovation.⁶ Given the ongoing growth that is forecast for data services,⁷ the need for broadband services among rural and underserved markets and populations,⁸ and other market factors, XO anticipates that it will

⁶ See NPRM at ¶14.

⁷ See, e.g., GN Dkt. No. 09-51, Public Notice #25, Transition from Circuit-Switched Network to All IP-Network, DA 09-2517 (rel. Dec. 1, 2009). See also NPRM, Statement of Commissioner Robert McDowell at 4 (“network engineers forecast that Internet traffic will grow fivefold in the next three to four years. They also predict that when all television and video is personalized and sent over the Internet, there will be 30 times more traffic than today's network can accommodate.”).

⁸ See, e.g., Michael J. Copps, Acting Chairman, Bringing Broadband to Rural America: A Rural Broadband Strategy (May 22, 2009), at ¶¶ 15, 27-32, attached to Acting Chairman Copps Releases Report on Rural Broadband Strategy, GN Dkt. No. 09-29, Public Notice, DA 09-1211 (rel. May 29, 2009).

continue to invest in network infrastructure and expansion to meet customer demands and to compete vigorously with other service providers, including providers of broadband transmission, Internet access and other services.

In fact, in XO's experience, competition and openness bring benefits that best serve our nation's economic growth and overall investment. The growth of Internet services, applications, and traffic has created commercial opportunities for XO. XO's investments and innovation in turn have generated opportunities for others, such as its equipment vendors (comprised primarily of U.S. companies, including Cisco, Infinera, Juniper, Sonus, Broadsoft, and Hatteras), who benefit from XO's purchase of network equipment, and the many smaller companies across the U.S. that XO engages to install and repair equipment and perform other services, who also benefit from XO's capital investments. Of course, XO's many customers, including large Internet-based companies such as eBay, Microsoft, and Yahoo, and some 18,000 small businesses⁹ – as well as their users – benefit from competition and the ability to access the open Internet. XO's inter-city private line and inter-city Ethernet services allow its customers to expand their own service footprint with a branded local service offering, while eliminating capital costs, improving their services and reducing operating costs. With the move to carrier Ethernet transport on XO's metro fiber networks, both XO and its customers will benefit from the reduced costs of carrying Ethernet and IP traffic.

Not only has the emergence of the public Internet greatly increased demand for network services generally, it also has served as a platform to allow some services to gain a foothold in the marketplace before migrating to the enterprise sector. Cloud computing, social networking,

⁹ XO's small business customers include those likely to spend \$1,000 or less per month on telecom services.

and VoIP, for example, all began on the public Internet. As the productivity-enhancing, price and efficiency benefits of such services became apparent, these services spawned new market segments in the enterprise market. Cloud computing now is forecast to be an important and growing market as enterprises and governments incorporate its features.¹⁰ Likewise, best-effort VoIP services such as Skype, which have been popularized as a result of the Internet's end-to-end structure, have migrated to enterprise markets that now increasingly enjoy better features, enhanced flexibility, and lower costs due to Internet-derived technologies.¹¹

Further, the existence of competitive network providers like XO helps ensure that legacy network owners continue to innovate and invest, as they follow the lead of the competitive providers and introduce new services. For example, XO's pioneering efforts to develop EoC services has demanded competitive responses from legacy providers. While incumbents may much prefer less competition and openness, and tend to lag in innovation and services,¹² the fact

¹⁰ See, e.g., GN Dkt. No. 09-51, *Ex Parte* Filing of Microsoft, Inc. (Dec. 31, 2009) (noting that businesses, governments, and consumers will benefit from the added choice and flexibility of cloud computing); *U.S. Federal Cloud Computing Market Forecast 2010-2015*, Market Research Media, May 20, 2009, available at <http://www.marketresearchmedia.com/2009/05/20/us-federal-cloud-computing-market-forecast-2010-2015> (Federal government expenditures on cloud computing will exceed \$7 billion by 2015).

¹¹ XO's Enterprise VoIP and IP Virtual Private Network managed service offerings have a common heritage in the IP technologies developed for use on the public Internet.

¹² For example, while XO has deployed Ethernet extensively, incumbent LECs have yet to implement an Ethernet transport offering that is commercially attractive to XO and other wholesale customers, with their offerings suffering from a number of technical and operational limitations. See GN Dkt. No. 09-51, Public Notice #11, Impact of Middle and Second Mile Access on Broadband Availability and Deployment, DA 09-2186 (rel. Oct. 8, 2009), Comments of XO Communications, Inc. (filed Nov. 4, 2009) at 18. Another example is the incumbent telephone companies' failure to deploy DSL technology for many years after they had the capability to do so. They elected to stall the deployment of those services in order to avoid cannibalizing their more profitable ISDN services. Only when new entrants began to deploy DSL services did the incumbents respond with their own DSL offerings. See, e.g., Gove, Alex, "Toeing the Line," *Red Herring* (May 1999) available at

is that competition drives investment and innovation for everyone. It is for this reason that proposed rule section 8.11, ensuring that users are not deprived of their entitlement to competition among network providers, is so important for future network investment. The same focus on competition also should compel the Commission to undertake a thorough review of its incumbent LEC copper retirement rules, special access pricing rules, and incumbent unbundling and collocation standards, as XO has urged.¹³ In each case, as here, the FCC should support actions that enable competitive providers to expand the reach and possibilities of America's broadband infrastructure.

B. Investment and Competition Will Be Best Served by an Open Internet

As the NPRM recognizes, the Internet we enjoy today has emerged as a remarkable and unprecedented platform of openness and transparency, creating broad innovation and growth. Entrepreneurs can innovate and experiment easily, commerce has been transformed, and the power of the open Internet to impact health care, education, energy, and core democratic values is unquestioned.¹⁴ Almost an afterthought for network providers (it was independent Internet Service Providers, assisted by sound FCC policies encouraging competitive enhanced services,

<http://www.redherring.com/mag/issue66/news-dsl.html> (noting that CLECs forced ILECs to deploy DSL in response to competitive pressure); In the Matter of Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, CC Docket No. 02-33, Comments of WorldCom, Inc. (filed May 23, 2002) at 27-29 (same).

¹³ See GN Dkt. No. 09-51, Comments of XO Communications, LLC (filed Jun. 8, 2009) at 14-18, 28-32; Comments of XO Communications, LLC (filed Nov. 4, 2009) at 9.

¹⁴ See NPRM at ¶¶ 18-22.

that largely drove mass market Internet demand in the early dial-up era), broadband Internet access is today a \$130 billion annual business.¹⁵

Wisely, government policy has been two-pronged: targeted to prevent abuses by legacy network access providers, while simultaneously promoting the growth of information services. For this reason, the FCC historically required nondiscriminatory treatment by last-mile facilities-based network providers of enhanced services, since these providers had both the ability and incentive to interfere with the growth of innovative enhanced (information) services.¹⁶ This reasonable approach was followed by Congress in the Telecommunications Act of 1996,¹⁷ which adopted as national policy “promot[ing] the continued development of the Internet” and “preserv[ing] the vibrant and competitive free market that presently exists for the Internet,”¹⁸ while enacting extensive provisions aimed at prying open last-mile network access and other bottlenecks that limited competition and hindered the faster, more efficient use of communications infrastructure in the public interest.¹⁹

¹⁵ See Ben Piper, Strategy Analytics, Global Broadband Forecast 2008–2012 (May 2008), available at <http://www.strategyanalytics.com/default.aspx?mod=ReportAbstractViewer&a0=3978>.

¹⁶ See *Amendment of Section 64.702 of the Commission’s Rules and Regulations, Final Decision*, 77 F.C.C. 2d 384, ¶142 (1980) (subsequent history omitted); *Amendment of Section 64.702 of the Commission’s Rules and Regulations, Report and Order*, 104 F.C.C. 2d 958, ¶3 (1986) (subsequent history omitted).

¹⁷ Telecommunications Act of 1996, Pub. Law No. 104-104, 110 Stat. 56 (1996).

¹⁸ 47 U.S.C. §§ 230(b)(1), 230(b)(2). See also *NPRM* at ¶47 (“it has long been U.S. policy to promote an Internet that is both open and unregulated”).

¹⁹ See, e.g., 47 U.S.C. §§ 251, 256, 257, 271. See also *Verizon Communications, Inc. v. FCC*, 122 S. Ct. 1646, 1662, (2002) (“It is easy to see why a company that owns a local exchange (what the Act calls an ‘incumbent local exchange carrier,’ (47 U.S.C. § 251(h)), would have an almost insurmountable competitive advantage”).

Even after extensive deregulation and reclassification of services, the FCC remained committed, as it explained in the 2005 *Internet Policy Statement*, to ensuring that our nation's broadband networks "are widely deployed, open, affordable, and accessible to all consumers,"²⁰ while seeking to promote competition and stem discriminatory and anticompetitive practices through its four "open Internet" principles.²¹ Just last year, the Recovery Act echoed this approach, launching an effort to make broadband network deployment and usage ubiquitous and to do so using the principles of openness, nondiscrimination and competition embodied in the *Internet Policy Statement*.²²

²⁰ *Appropriate Framework for Broadband Access to the Internet over Wireless Facilities; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services; Computer III Further Remand Proceedings; Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements; Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities Internet Over Cable Declaratory Ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, Policy Statement*, 20 FCC Rcd. 14986, ¶4 (2005) ("*Internet Policy Statement*").

²¹ *Id.* See also *Madison River LLC and Affiliated Companies*, 20 FCC Rcd. 4295 (Enf. Bur. 2005) (Internet service provider Madison River entered into consent decree and agreed to cease blocking ports used for VoIP applications, where the blocking affecting customers' ability to use their preferred VoIP providers); *In the Matters of Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications, Memorandum Opinion and Order*, 23 FCC Rcd. 13028, ¶1 (2008) ("*Comcast-BitTorrent Order*"), *appeal pending sub. nom Comcast Corp. v. FCC*, U.S. App. LEXIS 7028 (D.C. Cir. Apr. 1, 2009) (finding that Comcast network management practices "unduly squelch the dynamic benefits of an open and accessible Internet," and requiring Comcast to end its "unreasonable network practices").

²² See Recovery Act at §6001(j) (requiring adherence to the principles contained in *Internet Policy Statement* and to a nondiscrimination requirement as a condition to receipt of stimulus funds for broadband). See also Executive Office of the President, National Economic Council, *Recovery Act Investments in Broadband: Leveraging Federal Dollars to Create Jobs and Connect America*, Dec. 17, 2009 at 3 (discussing role of Recovery Act funding to deploy broadband networks and create jobs).

Clear rules guaranteeing openness are most likely to increase overall investment and innovation throughout “the Internet ecosystem,”²³ and to promote other social benefits. As the FCC has long known (and legacy network providers frequently have argued when it suits their interests), regulatory certainty best promotes investment.²⁴ Threats by legacy network owners that they will not invest, often made when they face greater competition and the perceived threat of openness, not only have been repeatedly discredited,²⁵ but in fact underscore exactly why greater competition is needed and openness must be preserved. Where opportunity exists, forward-looking competitors like XO are eager to step in and invest. In any case, while legacy network providers may complain that they will not invest if they are required to treat all content, services and applications in a nondiscriminatory manner, their own data shows that the open Internet policies and principles implemented to date by the FCC, including the *Internet Policy Statement*, have not deterred investment.²⁶

²³ NPRM, Statement of Chairman Genachowski at 3 (“Our rules can and must promote investment and innovation throughout the Internet ecosystem.... The full potential of the Internet cannot be unleashed without robust and healthy broadband networks....”).

²⁴ See NPRM at ¶88 (“Codification will increase certainty regarding the Commission’s approach to preserving the open Internet.”). See also *1998 Biennial Regulatory Review – Spectrum Aggregation Limits for Wireless Telecommunications Carriers, Report and Order*, 15 FCC Rcd. 9219, ¶51 (“regulatory certainty is critical to providing the industry with incentives to make investments...”).

²⁵ See, e.g., *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Dkt. No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd. 3696, ¶112 (1999) (rejecting arguments that unbundling deters investment, finding instead that the availability of unbundled elements promotes investment by justifying the construction of new facilities).

²⁶ See, e.g., GN Dkt. No. 09-51, Comments of AT&T Inc. (filed Jun. 8, 2009) at n.13 (“AT&T has invested \$38 billion over the past two years to enhance our wireline and wireless networks, and we plan to spend another \$17 to \$18 billion in 2009, with approximately two-thirds of this new investment slated to support broadband.”); Comments of Verizon and Verizon Wireless (filed Jun. 8, 2009) at 18 (“Verizon has invested more in capital expenditures over the last several years – more than \$80 billion from 2004 through 2008 – than *any* other company in the

As the NPRM notes, the Internet creates “spillover” effects on jobs, including, for example, the large number of people who operate small businesses through a single auction platform, eBay, “bringing jobs and opportunity to communities throughout the nation.”²⁷ Small businesses – for whom broadband Internet access service offers low barriers to entry and access to a global market – are a key driver of technological innovation.²⁸ Among small and new businesses, the lifeblood of job growth in the U.S.,²⁹ a substantial and growing number of new

United States in *any* industry.”) (emphasis in original); Comments of United States Telecom Association (filed Jun. 8, 2009) at 3 (“By some estimates, cumulative capital expenditures by broadband providers from 2000-2008 were over half a trillion dollars. In 2008 alone, broadband providers invested at least \$64 billion to deploy and upgrade their networks.”).

²⁷ NPRM at ¶20 (citing Jessica Seid, *Secrets to Becoming an eBay Millionaire*, CNNMoney.com (Aug. 5, 2006), available at http://money.cnn.com/2006/08/04/smbusiness/ebay_entrepreneur/). See also Andrew McAfee, *Craigslist: In Praise of Primitive*, Dec. 9, 2009, available at <http://blogs.harvardbusiness.org/hbr/mcafee/2009/12/craigslist-in-praise-of-primitive.html>.

²⁸ As the U.S. Small Business Administration has noted, “small firm contribution to innovation is the most intense in new and emerging technologies. In the U.S. telecommunications sector, small businesses have become increasingly dynamic by developing new technologies based on the legacy copper network. Small telecommunications providers have been able to offer competitive packages to consumers, rivaling the cable platforms offered in their regions. These and similar offerings have created a wide range of telecom choices for small business customers.” Letter from Thomas M. Sullivan, Chief Counsel for Advocacy and Cheryl M. Johns, Assistant Chief Counsel for Telecommunications, Office of Advocacy, U.S. Small Business Administration to Chairman Kevin J. Martin, Federal Communications Commission (May 10, 2007) at 2-3.

²⁹ See <http://www.kauffman.org/newsroom/kauffman-foundation-analysis-emphasizes-importance-of-young-businesses-to-job-creation-in-the-united-states.aspx> (according to a recently released study by the Ewing Marion Kauffman Foundation, all net job creation from 1980 to 2005 came from firms that were five years old or less). See also Small Business Administration, Office of Advocacy, *Frequently Asked Questions*, at 1 (Updated Sept. 2009), available at <http://www.sba.gov/advo/stats/sbfaq/pdf> (estimating that businesses with fewer than 500 employees generated 64 percent of all net new jobs over the past 15 years). Recent actions by AT&T and Verizon confirm that, in contrast, older companies are likely to shed jobs. See Saul Hansell, *As Profit Falls 21%, Verizon Plans to Slash 8,000 Jobs*, New York Times, July 27, 2009, available at http://www.nytimes.com/2009/07/28/technology/companies/28phone.html?_r=1 (noting that in 2009, Verizon eliminated 8,000 jobs and AT&T eliminated 14,000 jobs).

jobs have been created by small software applications, content, and service firms operating “at the edge” of the Internet.³⁰

Notably, data the FCC has collected for the National Broadband Plan and the extensive experience of other nations underscore that open networks best serve consumers and create growth, opportunity and innovation.³¹ As Chairman Genachowski reiterated just last month, “As the next generation of the Internet unfolds, we should not unlearn the lessons of history. To further our goal of U.S. leadership in innovation, the Internet should not close on our watch.”³²

Enforceable rules that address choice of content, applications, services, devices, and competitive options as well as nondiscrimination and transparency also will provide network owners, investors, and consumers assurance that the Internet will continue to serve as a platform

³⁰ Chris Dannen, *The Top Jobs for 2009*, Jan. 13, 2009 available at: <http://www.fastcompany.com/articles/2009/01/top-jobs-2009.html> (“But for now, technology workers are still in high demand.... Most of the open positions will be found at small companies”).

³¹ See, e.g., GN Dkt. No. 09-51, *Next Generation Connectivity: A review of broadband Internet transitions and policy from around the world*, Berkman Center for Internet & Society, Harvard University (Draft Report, filed Oct. 2009) (“Berkman Center Draft Study”) at 75 (open access policies have contributed to the success of many of the highest performers during the first broadband transition, and as a result are now at the core of future planning processes in Europe and Japan; there is extensive evidence to support the position, adopted almost universally by other advanced economies, that open access policies, where undertaken with serious regulatory engagement, contributed to broadband penetration, capacity, and affordability in the first generation of broadband); *Next Generation Connectivity: Memorandum Describing Intended Updates to the Final Report*, Berkman Center for Internet & Society, Harvard University (filed Dec. 21, 2009) at 22, 34 (discussing research on unbundling and effects on investment, penetration and usage); Organisation for Economic Co-operation and Development, *Working Party on Communication Infrastructures and Services Policy: Network Developments in Support of Innovation and User Needs* (Dec. 9, 2009) at 4 (discussing benefits of competitive, open access fiber networks).

³² Remarks of Chairman Julius Genachowski, Federal Communications Commission, “Innovation in a Broadband World,” The Innovation Economy Conference, Washington, D.C., Dec. 1, 2009, at 5.

for investment and innovation.³³ Investors and entrepreneurs alike need confidence that they will be able to continue to obtain open and nondiscriminatory access to the end-to-end architecture of the Internet. If the FCC fails to act, however, the continued regulatory uncertainty that results from a lack of rules will chill investment and innovation, particularly by smaller businesses that make up a significant part of XO's customer base and contribute significantly to innovation and job growth throughout the entire economy.³⁴

III. MANAGED SERVICES ARE COMPLEMENTARY TO THE OPEN INTERNET

The FCC seeks comment on how it should address "managed" or "specialized" services, described as IP-based offerings, including those offered over the same networks used to provide broadband Internet access service.³⁵ As a provider of some of these "managed" services, as well as broadband Internet access, over shared infrastructure, XO agrees with Chairman Genachowski's suggestion that managed services can be complementary to, not at odds with, the open end-to-end Internet architecture.³⁶

³³ Indeed, as the Commission already has acknowledged, "[c]odification will increase certainty regarding the Commission's approach to preserving the open Internet." NPRM at ¶88. *See also* WC Dkt. 04-36, Comments of Legacy AT&T (filed May 28, 2004) at 54 ("If there is even a serious risk that ... access can be blocked by the entities that control the last mile network facilities necessary for Internet access, the capital markets will not fully fund IP-enabled services.").

³⁴ *See* "Why Startups and Web Innovation Need Net Neutrality," *BusinessWeek* (Dec. 8, 2009), available at http://www.businessweek.com/technology/content/dec2009/tc2009124_648661.htm ("From the perspective of startups and innovators, service providers need to exist and be profitable. They provide the last mile and global connectivity required by technology startups to operate at any level. They also buy products and services from those startups and often deploy them at a scale unheard-of in other end markets.")

³⁵ *See* NPRM at ¶¶ 148-153.

³⁶ Remarks of Chairman Julius Genachowski, "Preserving a Free and Open Internet: A Platform for Innovation, Opportunity, and Prosperity," Sept. 21, 2009, at 5 ("I also recognize that there may be benefits to innovation and investment of broadband providers offering managed services in limited circumstances. These services are different than traditional broadband Internet access,

Managed services are an important component of XO's package of competitive service offerings because they allow XO to meet specific needs of business and government customers. These customers often require service quality levels greater than the "best effort" Internet. For example, while Internet-based VoIP services may offer many consumers adequate service quality for their typical personal use, enterprise and other institutional customers often demand a much higher level of reliability, preferring a dedicated connection with service level assurances. While consumers may tolerate occasional delays and diminished voice quality in exchange for VoIP services that are often free or very low cost, enterprise and government customers typically will not. VoIP services for these customers must be as reliable, and ideally better than, traditional telephone service.

In XO's case, it is also important to note that many managed services are already subject to a framework barring discrimination as they are offered as Title II telecommunications transport pursuant to the Communications Act.³⁷ As such, it would make little sense for the FCC to overlay additional obligations onto the bedrock common carriage principles that already apply. Just as importantly, even with XO's managed services, treatment of customers of similar services (such as VoIP) is not determined by content or affiliation.

Moreover, XO's practices are transparent to its managed services customers. Any prioritization of traffic that occurs on XO's network is the result of a customer-defined classification that applies only to its own traffic and does not impact any other customer's traffic. For example, XO offers IP/MPLS Virtual Private Network ("VPN"), a fully managed converged

and some have argued they should be analyzed under a different framework. I believe such services can supplement – but must not supplant – free and open Internet access, and that we must ensure that ample bandwidth exists for all Internet users and innovators.”).

³⁷ See 47 U.S.C. §§ 201 *et seq.*

voice and data network service with advanced features for application traffic prioritization by class of service for router management and applications performance management. IP/MPLS VPN allows customers in multiple locations to securely connect their sites to achieve more cost-effective bandwidth (with flexible bandwidth limits), faster application deployment, lower network operating costs, and more access options.

Notably, although managed services typically share the same infrastructure with broadband Internet access services, XO's network has ample capacity for both types of services. XO does not treat basic Internet access as a managed service, and does not charge for, block, or degrade any traffic based on a source's affiliation or type of content. The reason is straightforward – XO considers the growth of applications, software, content, and services at the edge of the network not as a threat, but as likely to create additional opportunities to provide network transport and other competitive services.

When customers of managed services obtain the quality and reliability they require in addition to being able to access the public Internet without barriers imposed by legacy network providers, they are more likely to add to the development of innovative technologies and business models, consistent with the Commission's overarching goals, including innovation, investment, competition, and consumer choice. In turn, they help maximize efficient use of network resources and play a significant role in the virtuous cycle of overall growth in IP-based services, including ripple effects on the public Internet.

Indeed, even as managed services meet business customers' needs, QoS continues to improve on the public Internet. While the technology already exists, there are also hopeful signs that coordination on an end-to-end level will increasingly occur since it ultimately benefits all customers and helps maximize network resource usage. This serves the interests of all network

providers because maximizing utilization of network facilities also maximizes revenue. Experience teaches that these QoS improvements are most likely to occur in an open environment where all marketplace participants have a shared incentive to bring users an improved experience. For all of these reasons, the Commission should recognize that managed services can be complementary to the open Internet.

IV. THE FCC SHOULD ADOPT CLEAR, ENFORCEABLE RULES TO PRESERVE THE OPEN INTERNET

XO agrees that, “[a]fter four years of evaluating market developments it is appropriate to codify the four principles” announced in the *Internet Policy Statement*, and agrees with the proposed adoption of two additional principles, nondiscrimination and transparency. Codification of the proposed rules is fully consistent with national policy and the Commission’s responsibilities under the Act. XO also supports codifying the rules as obligations of broadband network owners that possess a broadband access bottleneck – *i.e.*, the last-mile facilities-based legacy broadband providers that offer Internet access service – rather than as consumer entitlements as stated in the *Internet Policy Statement*. Doing so will provide certainty as to which entities are subject to the rules, clarify those entities’ specific obligations, and target the source of the potential discrimination and anticompetitive conduct.³⁸

Not only has Congress repeatedly confirmed the importance of the Internet and broadband to the nation’s economic and civic well-being, most recently, the Recovery Act established broadband deployment and usage as a national priority, and charged the FCC with developing a comprehensive, forward-looking National Broadband Plan to serve as a catalyst for

³⁸ See NPRM at ¶90.

economic recovery.³⁹ Notably, the Recovery Act also sought to ensure that as broadband is deployed to all Americans, this upgraded infrastructure should be open and nondiscriminatory.⁴⁰

XO agrees with the Commission's determination that it has authority to adopt rules governing the network practices of broadband network providers that control the last-mile bottleneck access to the Internet.⁴¹ Where, as here, a regulation falls within the Commission's general grant of jurisdiction under Title I of the Communications Act, and the "subject of the regulation [is] 'reasonably ancillary to the effective performance of the Commission's various responsibilities,'"⁴² the Commission's authority to adopt tailored rules has been upheld.⁴³

Broadband Internet access service, whether provided by wireline, cable, or wireless facilities owners, plainly constitutes "interstate and foreign communication by wire or radio,"⁴⁴ and thus is subject to the Commission's general statutory authority under the Communications Act. Indeed, the Commission already has established (and the Supreme Court has affirmed) its

³⁹ The Recovery Act tasks the Commission with developing a national broadband plan that shall seek to ensure that all people of the United States have access to broadband capability and shall establish benchmarks for meeting that goal. Recovery Act § 6001(k)(2). *See also* Recovery Act, 123 Stat. 115 § 6001(k)(2)(D) (the "use of broadband infrastructure and services" is to "advanc[e] consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes").

⁴⁰ For example, the Recovery Act established that compliance with nondiscrimination obligations and with the principles set forth in the Commission's *Internet Policy Statement* shall be a condition of receiving Recovery Act funding for broadband projects. Recovery Act, § 6001(j).

⁴¹ *See NPRM* at ¶¶ 83-87.

⁴² *U.S. v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968).

⁴³ *Id. Accord United States v. Midwest Video Corp.*, 406 U.S. 649 (1972) ("*Midwest Video I*"); *Midwest Video Corp. v. FCC*, 571 F.2d 1025 (8th Cir. 1978), *aff'd*, *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979) ("*Midwest Video II*").

⁴⁴ 47 U.S.C. § 152(a).

Title I jurisdiction over all wireline, cable, and wireless providers of broadband Internet access service based on the service being “interstate ... communication by wire or radio.”⁴⁵

The proposed rules are necessary to the Commission’s performance of its “statutory responsibility to preserve and promote advanced communications networks that are accessible to all Americans and that serve national purposes.”⁴⁶ Here, the “growing interrelationship with voice and video services ... traditionally regulated pursuant to express statutory obligations and its general public interest mandate ... supports the Commission’s consideration of regulatory requirements for the provision of broadband Internet access service, and its ancillary jurisdiction to establish appropriate rules.”⁴⁷

Broadband Internet access service offerings significantly affect telecommunications services regulated under Title II as well as broadcasting and cable services regulated under Titles III and VI of the Communications Act. In light of the impact of VoIP, Internet video and other service offerings on the FCC’s traditional framework for regulating voice and video services under Titles II, III and VI (including aspects of service delivery, application of consumer protections, and interconnection and distribution obligations), precedent confirms the FCC may “issue ‘such rules and regulations and prescribe such restrictions and conditions, not inconsistent

⁴⁵ See *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking*, 20 FCC Rcd. 14853, ¶110 (2005); *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd. 4798, ¶33 (2002), *aff’d*, *National Cable & Telecommunications Ass’n v. Brand X Internet Services*, 545 U.S. 967 (2005) (“*Brand X*”); *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks, Declaratory Ruling*, 22 FCC Rcd. 5901, ¶28 (2007).

⁴⁶ *NPRM* at ¶5 (citing, *inter alia*, 47 U.S.C. § 254(b)(2) and 47 U.S.C. § 1302).

⁴⁷ *NPRM* at ¶85.

with law,’ as ‘public convenience, interest, or necessity requires.’”⁴⁸ Indeed, Sections 154(i) and 303(r) of the Act explicitly provide the FCC with the necessary regulatory authority to fulfill its statutory mandates.⁴⁹

Just as the courts have upheld prior assertions of FCC ancillary authority in the *Computer Inquiry* and other contexts,⁵⁰ it may do so here. In fact, in *Brand X*, the Supreme Court acknowledged the FCC’s discretion to “regulate more stringently ... certain entities that provided enhanced service” and strongly suggested that the FCC “remains free to impose special regulatory duties on facilities-based ISPs under its Title I ancillary jurisdiction.”⁵¹ Thus, any argument that last-mile broadband access service is beyond the Commission’s regulatory reach must be rejected.⁵²

Moreover, the proposed rules are reasonably ancillary to the Commission’s ability to perform numerous statutory responsibilities in addition to those cited in the NPRM. For example, the Act directs the FCC to “promote nondiscriminatory accessibility by the broadest number of users and vendors of communications products and services to public telecommunications networks used to provide telecommunications services” and to “ensure the

⁴⁸ *U.S. v. Southwestern Cable*, 392 U.S. at 178 (quoting 47 U.S.C. § 303(r)).

⁴⁹ See 47 U.S.C. § 154(i) (“the Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions”); 47 U.S.C. § 303(r).

⁵⁰ See *Computer and Communications Industry Ass’n v. FCC*, 693 F.2d 198, 213 (D.C. Cir. 1982) (“CCIA”) (finding that the Commission’s decision to exercise jurisdiction over CPE and enhanced services under its Title I authority in order to carry out its duty to assure the availability of transmission services at reasonable rates was reasonable).

⁵¹ *Brand X*, 545 U.S. at 976, 996.

⁵² Notably, in *Southwestern Cable*, the Supreme Court rejected industry arguments that cable television service, “with certain of the characteristics both of broadcasting and of common carriers, but with all of the characteristics of neither, eludes altogether the Act’s grasp.” See *U.S. v. Southwestern Cable*, 392 U.S. at 172.

ability of users and information providers to seamlessly and transparently transmit and receive information between and across telecommunications networks.”⁵³ The Act also charges the Commission with identifying and eliminating “market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services,”⁵⁴ and in doing so to promote “the policies and purposes of this Act, favoring diversity of media voices, vigorous economic competition, technological advancement, and promotion of the public interest, convenience, and necessity.”⁵⁵ And, the Commission is charged with implementing “the policy of the United States to encourage the provision of new technologies and services to the public.”⁵⁶ Finally, the Supreme Court has confirmed the Commission’s authority to implement to the fullest extent possible the pro-competitive aspects of the Act.⁵⁷

All of these statutory objectives are served by the proposed rules. By prohibiting broadband providers from blocking or otherwise preventing users from sending or receiving the lawful content, running the lawful applications or using the lawful services of the user’s choice,⁵⁸ the rules will “ensure the ability of users and information providers to seamlessly and transparently transmit and receive information between and across telecommunications

⁵³ 47 U.S.C. §§ 256(a)(1),(2). Although Section 256 does not expressly direct the FCC to adopt rules to carry out these responsibilities, it preserves other Commission authority, including ancillary jurisdiction, to do so. *See* 47 U.S.C. § 256(c).

⁵⁴ 47 U.S.C. § 257(a).

⁵⁵ 47 U.S.C. § 257(b).

⁵⁶ 47 U.S.C. § 157(a).

⁵⁷ *See Verizon Communications, Inc. v. FCC*, 122 S. Ct. 1646, 1661 (2002); *AT&T Corp. v. Iowa Utilities Bd.*, 525 U.S. 366, 384-385 (1999).

⁵⁸ *See NPRM*, proposed rule Sections 8.6, 8.7 (to be codified at 47 C.F.R. §§ 8.6, 8.7).

networks.”⁵⁹ In addition, the record shows that nondiscriminatory and transparent practices by last-mile broadband Internet access service providers help lower entry barriers in the telecommunications and information services marketplaces.⁶⁰ Moreover, in furtherance of Section 257(a), the rules will help ensure that consumers have access to their choice of small business software, content and applications companies,⁶¹ and consistent with Section 257(b), the rules will entitle broadband Internet access users to competition among network providers, as well as among application, content and service providers.⁶²

V. CONCLUSION

As Chairman Genachowski has noted, we are at a crossroads where we must determine what our future path will be. Today we enjoy the open Internet, with all its riches. Yet, there are some who would prefer to leverage their broadband access facilities to undermine the ecosystem that consumers and competitors alike have come to expect and rely upon. President Obama has reiterated, “I remain firmly committed to net neutrality so we can keep the Internet as it should be – open and free.”⁶³ Now is the time for the FCC to put in place necessary rules to preserve the open, nondiscriminatory, and competitive environment that will serve important national goals.

⁵⁹ 47 U.S.C. §§ 256(a)(1), (2).

⁶⁰ See Berkman Center Draft Study at 12 (“overall the lowest prices and highest speeds are almost all offered by firms in markets where, in addition to an incumbent telephone company and a cable company, there are also competitors who entered the market and built their presence through the use of open facilities.”).

⁶¹ See NPRM, proposed rule Sections 8.5, 8.6 (to be codified at 47 C.F.R. §§ 8.5, 8.6).

⁶² See NPRM, proposed rule Section 8.11, 8.6 (to be codified at 47 C.F.R. § 8.11).

⁶³ See *Obama Committed to Network Neutrality*, Broadcasting and Cable, May 29, 2009, available at http://www.broadcastingcable.com/article/277425-Obama_Committed_to_Network_Neutrality.php.

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January 14, 2010