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

In the Matter of AT&T Petition To Launch a Proceeding Concerning the TDM-to-IP Transition Petition of the National Telecommunications Cooperative Association for a Rulemaking To Promote and Sustain the Ongoing TDM-to-IP Evolution	GN Docket No. 12-353

COMMENTS OF VERIZON AND VERIZON WIRELESS

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COMMENTS OF VERIZON AND VERIZON WIRELESS[1]

As the Commission faces the rapidly changing communications landscape, its focus must be on "the communications platform of today and the future."[2] The Commission has recognized that this platform is premised on expansive broadband deployment and IP technology that will constitute a "world-leading broadband ecosystem for both fixed and mobile service."[3] This technology transition is already well underway, as consumers embrace the expanding range of choices that result from technological and competitive shifts in the communications marketplace. Where once communications were dominated by voice-only Plain Old Telephone Service delivered over a copper network, consumers today have a range of services made available over competitive wireline and wireless IP-based broadband technologies. In fact, in this broadband

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

[2] Chairman Julius Genachowski, FCC, Remarks at the Georgetown Center for Business and Public Policy, Washington, D.C. (Nov. 7, 2011), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-310876A1.pdf.

[3] FCC, *Connecting America: The National Broadband Plan*, at 11 (2010), http://download.broadband.gov/plan/national-broadband-plan.pdf ("*National Broadband Plan*").

world, voice is increasingly only one of many communications options travelling over these competing broadband networks. Consumers even now communicate using a wide variety of providers, allowing them to connect with one another using technologies and applications not even imagined in 1996, much less 1934. The Commission's own technical advisors stress that the "the transition to the next generation network is real, is occurring now, and is being driven by market forces."[4]

But the Commission's focus on broadband looks still further, to help the United States become "the leading user of broadband-enabled technologies that help businesses increase their productivity, help government improve its openness and efficiency, and give consumers new ways to communicate, work and entertain themselves."[5] As part of its broadband-related goals, the Commission seeks to have broadband service at 100 Mbps available to 100 million homes by 2015.[6] And more recently, the Chairman issued his "Gigabit City Challenge," in which he called for at least one Gigabit-Internet community in every state by 2015.[7]

In light of these ambitious goals and the rapid technological and competitive shifts already underway, AT&T's and NTCA's petitions present a good opportunity for the Commission to look for ways to further this pro-consumer transition.[8] While the Commission

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[4] Technical Advisory Council, FCC, *Summary of Meeting*, at 2 (Dec. 20, 2011), http://transition.fcc.gov/oet/tac/tacdocs/tac-meeting-summary-12-20-11-final.pdf.

[5] *Id.*

[6] *Id.*

[7] FCC News Release, *FCC Chairman Julius Genachowski Issues Gigabit City Challenge to Providers, Local, and State Governments to Bring at Least One Ultra-Fast Gigabit Internet Community to Every State in U.S. by 2015* (Jan. 18, 2013), http://www.fcc.gov/document/fcc-chairman-genachowski-issues-gigabit-city-challenge.

[8] AT&T, Petition To Launch a Proceeding Concerning the TDM-to-IP Transition, GN Docket No. 12-353 (FCC filed Nov. 7, 2012) ("AT&T Petition") and Petition of the National

already has taken important steps to help facilitate this transition in its universal service, intercarrier compensation, and broadband proceedings, the Commission should ensure that other legacy regulations are not hampering these pro-consumer developments. After all, the Commission's existing regulations were largely adopted to address a one-wire, monopoly world at a time when the incumbent local exchange carrier ("ILEC") "voice network" was the primary source of communications services. Given the lack of resemblance to the current realities facing consumers – much less those of the future – the Commission should consider additional steps "to respond to the ongoing technological transition of voice networks"[9] and the growing emphasis on expanded broadband deployment and access.

As the Commission approaches this important task, it should not import its legacy regulatory framework. Although there are issues – such as public safety, access for persons with disabilities, universal service, and the like – that may continue to require some regulatory involvement or backstop to protect and serve consumers even as technologies evolve, the Commission should primarily focus on maximizing the ability of market forces to drive innovation and investment in IP and broadband. The Technology Transitions Policy Task Force likewise should follow this approach as it "provide[s] recommendations to modernize the Commission's policies in a process that encourages the technological transition, empowers and protects consumers, promotes competition, and ensures network resiliency and reliability."[10]

Telecommunications Cooperative Association for a Rulemaking To Promote and Sustain the Ongoing TDM-to-IP Evolution, GN Docket No. 12-353 (FCC filed Nov. 19, 2012).

[9] Public Notice, *Pleading Cycle Established on AT&T and NTCA Petitions*, GN Docket No. 12-353, DA 12-1999, at 1 (rel. Dec. 14, 2012) ("Public Notice").

[10] FCC News Release, *FCC Chairman Julius Genachowski Announces Formation of "Technology Transitions Policy Task Force"* (Dec. 10, 2012), http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db1210/DOC-317837A1.pdf.

There are several steps that the Commission should take to encourage the ongoing transition to IP and broadband. As a start, the Commission should remove those existing regulations or ambiguities in the rules that can hamper technology transitions, distort competition, or more generally have outlived their usefulness. These include confirming that all IP-enabled services are inherently interstate; getting rid of the outdated requirement to provide a 64 kbps voice-grade channel over fiber loops in areas where copper has been retired; and getting rid of Eligible Telecommunications Carrier ("ETC") universal service requirements and parallel state requirements in areas where providers do not receive funding to provide service. As the Commission and the President have endeavored to do in recent years, the Commission also should streamline or eliminate other regulations that no longer serve a useful purpose, such as rules governing network changes, service entry and exit approval requirements, equal access obligations, and other regulations that have become nothing but underbrush. The Commission should also complete access charge reform by transitioning down originating access rates as the Commission has done with respect to terminating access.

Finally, the Commission should reject retrograde efforts to create expansive new regulation of broadband networks and services that would threaten the continued investment and innovation that the Commission seeks to encourage. For example, contrary to the urgings of some parties seeking to benefit their own business models at the expense of consumers and the larger transition, the Commission should not create regulatory obligations to interconnect in a particular format such as IP, impose new burdens on the copper retirement process, create new unbundling obligations on fiber-based services or packet-switched loops, or re-regulate enterprise broadband services by reversing forbearance grants. The Commission should instead

act to benefit consumers by removing regulation that slows the further transition to IP-based broadband networks.

I. THE COMMUNICATIONS LANDSCAPE IS DRAMATICALLY CHANGING AS CONSUMERS EMBRACE BROADBAND AND IP-BASED SERVICES

As the TDM-based circuit switches and copper wire that form the backbone of the Public Switched Telephone Network ("PSTN") approach the end of their useful lives, the Plain Old Telephone Service ("POTS") that the PSTN was engineered to provide now accounts for only a small and declining fraction of the communications services that consumers demand. As a result of their own choices, most consumers no longer rely on simple voice services delivered over copper phone lines, but instead demand access to broadband networks that offer a panoply of IP-enabled communications services. Indeed, once the combined impact of cord cutting and the move to competitive IP-based broadband networks and services is taken into account, the majority of voice connections and traffic no longer originate on the traditional copper network. *See* § I.B, *infra.*

A. Changes in Technology

The emergence and widespread deployment of broadband and IP technology has enabled a fundamental change in communications options, as the landscape expands from TDM-based POTS wireline services to feature-rich Voice over Internet Protocol ("VoIP") and other IP-enabled wireline services, and to encompass wireless networks and smartphone technology. In an environment in which there are no incumbent or historically dominant providers, companies have made massive investments to provide customers access to these new IP-based broadband networks and services.

Verizon has invested heavily in transitioning from its decades-old copper-and-TDM-based networks to new fiber-based IP networks. Verizon has spent billions of dollars to deploy a

fiber-to-the-premises network past nearly 18 million homes and businesses, offering voice, Internet, and video services.[11] More than 14.5 million premises in Verizon's footprint are open for sale, and of those, more than 37 percent subscribe to FiOS Internet service.[12] In addition, Verizon has invested billions more to make broadband wireless technology available throughout the country. Verizon Wireless has made its Long Term Evolution ("LTE") network available to nearly 90 percent of the U.S. population so far,[13] and plans to deploy 4G LTE service everywhere it currently offers 3G by mid-2013.[14]

Numerous other carriers also are investing in IP-enabled broadband networks. Beginning in the mid-1990s, cable operators began upgrading one-way video distribution networks to offer two-way voice and broadband services.[15] Cable operators have invested more than $185 billion

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[11] *See* Verizon News Release, *Verizon Ushers in New Era of Consumer Broadband; New FiOS Portfolio Features Speeds of 75, 150 and 300 Mbps* (May 30, 2012), http://newscenter2.verizon.com/press-releases/verizon/2012/verizon-ushers-in-new-era-of.html; *Verizon Communications Inc. at Barclays Capital Global Communications, Media, and Technology Conference*, FD (Fair Disclosure) Wire, Transcript 052411a4098804.704 (May 24, 2011) (Verizon Communications Inc., CFO and EVP Fran Shammo refers to "the initial $23 billion investment" in FiOS).

[12] Verizon, *4Q 2012 Investor Quarterly*, at 6 (Jan. 22, 2013), http://www22.verizon.com/idc/groups/public/documents/adacct/vz_4q_quart_bulletins_2012.pdf.

[13] Verizon Wireless, *News Center: LTE Information Center*, http://news.verizonwireless.com/LTE/Overview.html (LTE deployment to 273.5 million people in 476 markets); Tom Pica, *4G LTE: A 2013 Roadmap*, Verizon Wireless News Center (Jan. 9, 2013), http://news.verizonwireless.com/news/2013/01/verizon-4G-LTE-473-markets.html.

[14] *Verizon Communications Inc. at Wells Fargo Technology Media & Telecom Conference*, FD (Fair Disclosure) Wire, Transcript 110812a4943608.708 (Nov. 8, 2012) (statement by Verizon Communications Inc. CFO and EVP Fran Shammo); Verizon Wireless, *LTE in Rural America*, https://aboutus.vzw.com/rural/Overview.html.

[15] *See*, *e.g.*, Comments of the National Cable & Telecommunications Association ("NCTA") at 21, *Preserving the Open Internet; Broadband Industry Practices*, GN Docket No. 09-191 & WC Docket No. 07-53 (FCC filed Jan. 14, 2010) ("[W]hen most rate regulation was eliminated by the Telecommunications Act of 1996, cable operators embarked on their largest investment ever –

in this effort to date, and cable broadband services are now available to at least 93 percent of U.S. households as well as a high percentage of businesses.[16] According to the Commission's data, approximately 37 percent of U.S. households subscribed to cable broadband services as of June 2011.[17] In addition, of the approximately 64 percent of U.S. households that still obtain wireline voice service,[18] approximately one-third obtain voice service from a cable operator.[19] Cable's DOCSIS 3.0 services are now available to at least 82 percent of U.S. homes,[20] providing these households with broadband speeds in excess of more than 20 Mbps, compared to only 19 percent of U.S. households with access to these speeds in 2009.[21]

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more than $150 billion since then to upgrade and rebuild their systems in a manner that made possible . . . high-speed Internet service.").

[16] NCTA, *Data: Investments in Infrastructure*, http://www.ncta.com/StatsGroup/Investments.aspx ($185.9 billion in cable industry capital expenditures, 1996-2011 (est.)); NCTA, *Data: Availability (as of June 2012)*, http://www.ncta.com/StatsGroup/Availability.aspx.

[17] *See* Ind. Anal. & Tech. Div., Wireline Competition Bureau, FCC, *Internet Access Services: Status as of June 30, 2011*, at 32, Table 13 & 11, n.16 (June 2012), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-314630A1.pdf ("*June 2011 Internet Access Report*").

[18] *See* Stephen J. Blumberg & Julian V. Luke, Div. of Health Interview Statistics, Nat'l Ctr. for Health Statistics, Centers for Disease Control and Prevention, *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January-June 2012*, at 1, 2 (Dec. 2012), http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201212.PDF ("*CDC Wireless Substitution Report*") (data as of the first six months of 2012).

[19] *See* NCTA, *Data: Operating Metrics*, http://www.ncta.com/StatsGroup/OperatingMetric.aspx (citing SNL Kagan data as of September 2012 for 26.4 million cable telephony subscribers); *June 2011 Internet Access Report* at 11, n.16 (estimating 120.8 million U.S. households as of June 2011).

[20] NCTA, *Data: Availability*, http://www.ncta.com/StatsGroup/Availability.aspx (as of June 2012).

[21] *See* Jaison T. Blair et al., Telsey Advisory Group, *NCTA's Cable Show*, at 1 (May 29, 2012). *See also* Jessica Reif Cohen et al., Bank of America/Merrill Lynch, *Battle for the Bundle: Easier Data, Tougher Voice for Cable*, at 7 (Nov. 21, 2011) (DOCSIS 3.0 will be available to 89

Other ILECs, including AT&T, CenturyLink, and many smaller LECs, have likewise been investing in IP-based broadband networks. AT&T's Project Lightspeed was a multi-billion-dollar initiative to deploy more than 40,000 miles of new, fiber-optic facilities to enable AT&T to provide VoIP and Internet access services, as well as U-verse video service.[22] AT&T recently announced a $6 billion investment plan "to expand and upgrade its wireline network to bring robust IP broadband services" to more than 75 percent of its wireline footprint, "[a]s its traditional DSL broadband technology approaches the end of its life cycle."[23] CenturyLink "continue[s] to invest in [its] fiber to the node . . . deployment," and expected its 2012 fiber investment, which included fiber-to-the-tower connections, to be approximately $2.8 billion to $2.9 billion.[24] Frontier invested more than $2 billion in the last three years to "enhanc[e] the existing outside plant by pushing fiber deeper into the network, enhanc[e] interoffice transport and expand[] the capability of [its] data backbone."[25] Windstream expected to incur capital

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percent of cable homes by the end of 2012); Amy Lind et al., IDC, *U.S. Consumer Fixed Broadband Displacement by Mobile Broadband 2012-2016 Forecast*, IDC #238547 (Dec. 2012) ("IDC estimates that by year-end 2012, the majority of most operators' networks will be upgraded to DOCSIS 3.0.").

[22] *See* Comments of AT&T Opposing Petitions for Declaratory Ruling at 6, *Petition for Declaratory Ruling of the City of Lansing, Michigan, on Requirements for a Basic Service Tier and for PEG Channel Capacity Under Sections 543(b)(7), 531(a), and the Commission's Ancillary Jurisdiction Under Title 1*, CSR-8127, MB Docket No. 09-13 et al. (FCC filed Mar. 9, 2009); *id.*, Declaration of Paul Whitehead in Support of AT&T's Opposition to Petitions for Declaratory Ruling ¶ 11 ("AT&T expects to spend more than 8 billion dollars from 2005-2011 building the infrastructure . . . to enable U-verse TV service.").

[23] AT&T Petition at 3, 9; AT&T Press Release, *AT&T To Invest $14 Billion To Significantly Expand Wireless and Wireline Broadband Networks, Support Future IP Data Growth and New Services* (Nov. 7, 2012), http://www.att.com/gen/press-room?pid=23506&cdvn=news&newsarticleid=35661.

[24] CenturyLink Inc., Form 10-Q, at 38, 48 (SEC filed Nov. 8, 2012), http://www.sec.gov/Archives/edgar/data/18926/000104746912010265/a2211709z10-q.htm.

expenditures between $950 million and $1.05 billion in 2012, more than the $702 million spent in 2011, "due to [its] significant investments in fiber-to-the-tower and other initiatives."[26] FairPoint has exceeded the capital expenditure commitments totaling more than $260 million it was required to make in Maine and Vermont by March 31, 2011, and is on track to spend $350.4 million in New Hampshire by March 31, 2015.[27]

In addition to Verizon Wireless, all of the other major wireless carriers also are investing heavily in new IP-based broadband networks. AT&T recently announced plans to invest $8 billion in wireless network initiatives, including LTE deployment to reach 300 million people by the end of 2014.[28] Sprint has announced plans to acquire full ownership of Clearwire, which itself has been working to deploy broadband,[29] and to make use of increased capital infusion from its proposed transfer of control to Softbank to maximize its ability to offer "a more robust,

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[25] *See* Frontier Communications Corp., Form 10-K, at 4, 34 (SEC filed Feb. 23, 2012), http://www.sec.gov/Archives/edgar/data/20520/000020520120000020/form10k2011.htm.

[26] Windstream Corp., Form 10-K, at 15, F-18 (SEC filed Feb. 22, 2012), http://www.sec.gov/Archives/edgar/data/1282266/000128226612000010/a201110k.htm.

[27] FairPoint Communications, Form 10-K, at 120 (SEC filed Mar. 9, 2012), http://www.sec.gov/Archives/edgar/data/1062613/000119312512105272/d300780d10k.htm.

[28] AT&T Petition at 9; AT&T Press Release, *AT&T To Invest $14 Billion to Significantly Expand Wireless and Wireline Broadband Networks, Support Future IP Data Growth and New Services* (Nov. 7, 2012), http://www.att.com/gen/press-room?pid=23506&cdvn=news&newsarticleid=35661.

[29] *See Clearwire Management Discusses Q3 2012 Results – Earnings Call Transcript*, SeekingAlpha (Oct. 25, 2012), http://seekingalpha.com/article/952651-clearwire-management-discusses-q3-2012-results-earnings-call-transcript?part=single (according to Clearwire Corp. CEO, President & Director Erik Prusch, Clearwire expects to expand its LTE network to up to 8,000 sites, with 2,000 sites on-air by the end of June 2013); *Q2 2012 Clearwire Corporation Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 072612a4861755.755 (July 26, 2012) (Clearwire Corporation CFO & SVP Hope Cochran: "We continue to expect the total cost for the larger LTE build of up to 8,000 sites to be approximately $600 million, which will be spent in 2012 and 2013.").

higher-capacity mobile broadband network."[30] T-Mobile USA is expected to spend approximately $4 billion on its LTE network,[31] and together with parent, Deutsche Telekom, has sought to combine its efforts with that of newer entrant MetroPCS, which independently has built out its own 4G LTE network.[32] In short, all of the major mobile operators have either launched or are committed to deploying LTE.[33] One report estimated that 4G network investments across carriers between 2012 and 2016 could reach $53 billion.[34]

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[30] Applications of Sprint Nextel Corporation, Transferor, and Softbank Corp. and Starburst II, Inc., Transferees, for Consent To Transfer of Control of Licenses and Authorizations, Amendment, IB Docket No. 12-343, at 6 (FCC filed Dec. 20, 2012).

[31] *See* Deutsche Telekom Press Release, *Deutsche Telekom Invests Almost EUR 30 Billion Over Three Years in the Future of Telecommunications* (Dec. 6, 2012), http://www.telekom.com/media/company/164844 ("The focus in the U.S. is on building out the LTE network, which alone will result in capex of around USD 4 billion.").

[32] As of August 2012, MetroPCS had built out its 4G LTE network to cover roughly 90 percent of its CDMA footprint. MetroPCS Press Release, *MetroPCS Launches World's First Commercially Available Voice Over LTE Service and VoLTE-Capable 4G LTE Smartphone* (Aug. 7, 2012), http://investor.metropcs.com/phoenix.zhtml?c=177745&p=irol-newsArticle&ID=1723513&highlight=; Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc., Description of Transaction, Public Interest Showing, and Related Demonstrations, *Applications of Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc. for Consent to Transfer of Control of Licenses and Authorizations Held by MetroPCS Communications, Inc. and Its Subsidiaries and by T-Mobile USA, Inc. and Its Subsidiaries*, WT Docket No. 12-301 (FCC filed Oct. 18, 2012).

[33] *See* John Byrne et al., IDC, *U.S. LTE Subscriber 2012-2016 Forecast*, IDC #236502, at 2 (Aug. 2012).

[34] *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Eighth Broadband Progress Report , 27 FCC Rcd 10342, ¶ 33 (2012); Deloitte, *The Impact of 4G Technology on Commercial Interactions, Economic Growth, and U.S. Competitiveness*, at 7 (Aug. 2011), http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/TMT_us_tmt/us_tmt_impactof4g_081911.pdf (estimating that 4G network investments could contribute up to $151 billion in gross domestic product growth and create up to 771,000 jobs).

These massive investments in broadband wireless networks reflect the fact that wireless is no longer merely a replacement for wireline voice, but broadband data as well. As described more fully in Section I.B, consumers increasingly are using their wireless devices for broadband Internet access and other high-bandwidth data applications. In addition, broadband wireless networks are being used to extend a high-capacity connection to the home. In March 2012, for example, Verizon Wireless introduced HomeFusion broadband, which provides subscribers with a broadband connection in their home over Verizon's LTE network.[35] This service is reasonably priced (with usage-based plans starting at $59.99 for 10 GB of data), and will eventually be available everywhere that Verizon makes LTE available, which is approximately 97 percent of the U.S. population.[36]

Satellite companies have also invested heavily in new broadband services. Satellite is not only a viable competitor in urban areas, but also can reach locations where deploying wireline broadband facilities would be exceedingly costly. In January 2012, following the successful launch of its ViaSat-1 satellite, ViaSat began providing its Exede high-speed Internet service in all 50 states.[37] The service, which claims download speeds of "about six times faster than earlier

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[35] Verizon Press Release, *HomeFusion Broadband from Verizon Powers In-Home Internet Connectivity with 4G LTE* (Mar. 6, 2012), http://newscenter2.verizon.com/press-releases/verizon-wireless/2012/homefusion-broadband-from.html.

[36] *See id.*; Verizon Press Release, *Verizon Wireless' 4G LTE Network Will Be Available in More Than 100 Markets on July 21, 2011* (July 18, 2011), http://www22.verizon.com/investor/news_verizon_wireless_4g_lte_network_will_be_available_in_more_than_100_markets.htm (Verizon Wireless plans to expand its 4G LTE offering to its entire 3G coverage area); Verizon Press Release, *Verizon Wireless to Launch 4G LTE In Lehigh Valley, Pennsylvania, April 21* (Apr. 18, 2011), http://news.verizonwireless.com/news/2011/04/pr2011-04-18.html (Verizon Wireless's 3G network covers 97 percent of the U.S. population).

[37] ViaSat Press Release, *Exede High-Speed Internet To Be Offered by DIRECTV in New Video/Broadband Bundle* (May 17, 2012), http://www.viasat.com/news/exede-high-speed-internet-be-offered-directv-new-videobroadband-bundle.

satellite Internet and four times faster than average DSL," attracted more than 150,000 subscribers in its first six months.[38] In October 2012, Hughes Network Systems began providing HughesNet Gen4 satellite broadband service at "dramatically increased speeds (up to 15 Mbps, depending on the plan)."[39]

The transition to broadband networks and IP-based services has not only facilitated competition among network operators, but also has opened the door to a wide range of over-the-top services and providers that consumers are now using in place of traditional POTS. Vonage, the largest over-the-top VoIP competitor, serves more than 2.2 million subscribers in the United States.[40] Vonage's "Extensions" product allows Vonage users to "make calls from another U.S. Phone, such as a mobile phone or non-Vonage home or business phone for the same rates as [their] Vonage calling plan."[41] More than 620,000 Vonage customers have registered for this service, and Vonage has completed more than one billion minutes of mobile-originated Extensions calls since July 2011.[42] Microsoft, which acquired Skype in October 2011, reports

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[38] ViaSat Press Release, *Exede Internet Celebrates America's Space Dominance in First National TV Spot* (Jan. 4, 2013), http://www.viasat.com/news/exede-internet-celebrates-america's-space-dominance-first-national-tv-spot.

[39] EchoStar Press Release, *HughesNet Gen4 Satellite Internet Service Goes Live with Speeds Up to 15 Mbps* (Oct. 1, 2012), http://sats.client.shareholder.com/releasedetail.cfm?ReleaseID=710287.

[40] *See* Vonage Holdings Corp., Form 10-Q, at 26 (SEC filed Nov. 1, 2012), http://www.sec.gov/Archives/edgar/data/1272830/000127283012000073/a10-qq312.htm (customers in the U.S. represented 93 percent of Vonage's 2.4 million subscriber lines as of Sept. 30, 2012).

[41] Vonage, *Vonage Extensions® FAQs*, https://support.vonage.com/app/answers/detail/a_id/2689/.

[42] *Vonage Holdings Corp.'s CEO Discusses Q3 2012 Results – Earnings Call Transcript*, Seeking Alpha (Oct. 31, 2012), http://seekingalpha.com/article/965601-vonage-holdings-corp-s-ceo-discusses-q3-2012-results-earnings-call-transcript (statement by Vonage Holding Corporation CEO Marc Lefar).

that Skype "continue[s] its rapid growth and now has over 280 million users" worldwide.[43] Half of all Skype sessions last more than 30 minutes.[44] Every day, Skype users worldwide spend 700 million minutes talking for free with other Skype users, 30 million minutes on Skype calls to mobile phones and landlines, and 300 million minute of Skype video calls.[45] Facebook, which has more than 190 million active users in the U.S. and Canada as of October 2012, up from one million users worldwide in December 2004,[46] recently released two new voice services: VoIP calling to iPhone and iPod Touch users, and free voice messaging for iPhone, iPod Touch, and Android users.[47]

B. Changes in Consumer Demand

The emergence of IP-based broadband networks is both a response to and has facilitated a shift in consumer demand to high-capacity broadband services that enable Internet access, video,

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[43] Microsoft Corp., Form 10-K, at 66 (SEC filed July 26, 2012), http://www.sec.gov/Archives/edgar/data/789019/000119312512316848/d347676d10k.htm; Microsoft Press Release, *Microsoft Reports First-Quarter Results* (Oct. 18, 2012), http://www.microsoft.com/en-us/news/press/2012/oct12/10-18fy13Q1earningsPR.aspx.

[44] Microsoft Advertising, *Skype*, http://advertising.microsoft.com/skype?tab=overview.

[45] Skype, *A Day in the Life of Skype* (Sept. 6, 2011), http://blogs.skype.com/en/2011/09/a_day_in_the_life_of_skype_inf.html.

[46] *See* Facebook, *Key Facts*, http://newsroom.fb.com/Key-Facts (one billion monthly active users as of October 2012; approximately 81 percent of which are outside the U.S. and Canada); Facebook, *Timeline*, http://newsroom.fb.com/Timeline (Facebook reached one million users in December 2004).

[47] *See, e.g.*, Robert Baldwin, *Facebook Could Sink Skype with Video Call App Update*, Wired (Jan. 18, 2012), http://www.wired.co.uk/news/archive/2013-01/18/facebook-video-calling ("On 16 January, Facebook added a free voice calling feature to its iOS Messenger app in the United States."); Josh Constine, *Facebook Adds Voice Messaging To Messenger For iOS and Android, Tests Open Source VoIP in Canada*, TechCrunch (Jan. 3, 2012), http://techcrunch.com/2013/01/03/facebook-voice-messaging/ ("Today [Facebook] released an update for its standalone Messenger for iOS and Android apps that lets users send up to one-minute voice messages.").

and other communications and entertainment services in addition to voice. Consumers are leaving the legacy PSTN for other alternatives that provide voice in the same manner as consumers increasingly view it: just one of many options that is fungible with other communications services.

Verizon's own experience demonstrates the rapid transition of consumers from the PSTN to IP-enabled broadband networks and services. In 2012 alone, Verizon's copper-based services declined by more than 2 million lines, while its fiber-based and wireless voice and data services substantially increased.[48] Morgan Stanley forecasts a 65-percent decline in Verizon's consumer switched access lines from 2012 to 2017.[49] Other analysts similarly report that consumer access lines are declining at a rate of approximately 10 percent per year,[50] as "[c]ustomers are increasingly replacing their traditional phone lines with wireless and data services or switching to competing carriers."[51]

Consumers' dependence on wireline telephones has been replaced by multiple devices and applications connected to the Internet. According to one recent study, the average U.S. household owns five devices connected to the Internet via Wi-Fi, wired, or cellular networks, and more than six percent of households own *more than 15* connected devices, including

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[48] *See* Verizon Communications Inc., *Condensed Consolidated Statements of Income*, http://www22.verizon.com/idc/groups/public/documents/adacct/vz_4q_fs_pdf_2012.pdf.

[49] Simon Flannery et al., Morgan Stanley Research, *Telecom Services: Bells' Wireline Consumer Revenue Growth Looks Sustainable*, at 11-12 (Sept. 28, 2012) (also projecting a 57 percent decline in AT&T's access lines during this same period).

[50] *See, e.g.*, David Barden et al., Bank of America Merrill Lynch, *Wireline & Wireless Telecom Services: 3Q12 Results Preview & Model Book – Let's All Settle Down*, at 3 (Oct. 12, 2012).

[51] Michael Hodel, Morningstar Equity Research, *Verizon Wireless Adds to Already Strong Spectrum*, at 7 (Dec. 02, 2011).

smartphones, tablets, gaming consoles, TVs, and digital photo frames.[52] Another industry analyst estimates there are 425 million devices connected to the Internet in U.S. homes, 18 percent of which are devices other than desktops, laptops, tablets, or smartphones.[53]

Many consumers now rely entirely on wireless networks both for voice and increasingly for data and other services. There are now more than 300 million wireless subscribers, which is well more than double the number of wireline access lines.[54] According to the Centers for Disease Control and Prevention ("CDC"), approximately 36 percent of U.S. households have foregone wireline service entirely and now rely exclusively on a wireless device.[55] An additional 16 percent of households have both wireline and wireless phones but receive all or almost all calls on their wireless phones.[56] According to the Pew Internet and American Life Project, as of April 2012, 55 percent of adults with wireless phones use the Internet on their mobile phones,

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[52] Olga Kharif, *Average Household Has 5 Connected Devices, While Some Have 15-Plus*, Bloomberg (Aug. 29, 2012), http://go.bloomberg.com/tech-blog/2012-08-29-average-household-has-5-connected-devices-while-some-have-15-plus/.

[53] NPD Group Press Release, *More Than 400 Million Devices Are Connected in U.S. Homes, According to the NPD Group* (Jan. 2, 2013), https://www.npd.com/wps/portal/npd/us/news/press-releases/more-than-400-million-devices-are-connected-in-us-homes-according-to-the-npd-group/ (183.8 million desktops & laptops, 8.5 million streaming media STB, 12.9 million Blu-ray disc players, 16 million HDTVs directly connected, 31.8 million tablets, 39 million video game consoles, and 133 million smartphones).

[54] *See* Ind. Anal. & Tech. Div., Wireline Competition Bureau, FCC, *Local Telephone Competition: Status as of December 31, 2009*, at 29, Table 17 (Jan. 2011), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-304054A1.pdf; Ind. Anal. & Tech. Div., Wireline Competition Bureau, FCC, *Local Telephone Competition: Status as of December 31, 2011*, at 29, Table 18 (Jan. 2013), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-318397A1.pdf ("*December 2011 Local Competition Report*") (298 million wireless subscribers as of the end of 2011). According to CTIA, there were 321.7 million wireless subscriber connections as of June 2012. CTIA, *Wireless Quick Facts*, http://www.ctia.org/media/industry_info/index.cfm/AID/10323.

[55] *CDC Wireless Substitution Report* at 1, 4 (data for the first six months of 2012).

[56] *Id.*

twice the percentage that used Internet on their mobile phones three years earlier.[57] Nearly one-third of those wireless Internet users said they mostly go online using their cell phone rather than another device such as a desktop or laptop, which means that 17 percent of all adult cell owners are "cell-mostly Internet users" who use their phone for most of their online browsing.[58] Moreover, the widespread deployment and adoption of 4G LTE technology will further accelerate this process as it provides consumers with a wireless broadband connection that is comparable to or even faster than their wireline connection.[59]

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[57] Joanna Brenner, *Pew Internet: Mobile* (Dec. 4, 2012), http://pewinternet.org/Commentary/2012/February/Pew-Internet-Mobile.aspx ("*Pew Internet Mobile Highlights*"). *See also* eMarketer Press Release, *eMarketer: Consumers Spending More Time with Mobile as Growth Slows for Time Online* (Oct. 22, 2012), http://www.emarketer.com/newsroom/index.php/consumers-spending-time-mobile-growth-time-online-slows/ (the time spent on mobile devices – excluding talk time – was projected to grow to 82 minutes per day in 2012, a 52-percent increase from 34 minutes in 2010); Darcy Travlos, *Five Reasons Why Google Android Versus Apple iOS Market Share Numbers Don't Matter*, Forbes (Aug. 22, 2012), http://www.forbes.com/sites/darcytravlos/2012/08/22/five-reasons-why-google-android-versus-apple-ios-market-share-numbers-dont-matter/ (citing Flurry Analytics) (wireless users spend 94 minutes per day on apps and 72 minutes on the web); Dusan Belic, *Tomi Ahonen: Average Users Looks at Their Phone 150 Times a Day!*, IntoMobile (Feb. 9, 2012), http://www.intomobile.com/2012/02/09/tomi-ahonen-average-users-looks-their-phone-150-times-day/ (Nokia's report at MindTrek 2010: the average person looks at his or her wireless phone 150 times a day, or once every six-and-a-half minutes while awake).

[58] *Pew Internet Mobile Highlights*; Aaron Smith, Pew Internet & American Life Project, *17% of Cell Phone Owners Do Most of Their Online Browsing on Their Phone, Rather Than a Computer or Other Device*, at 2 (June 26, 2012), http://pewinternet.org/~/media//Files/Reports/2012/PIP_Cell_Phone_Internet_Access.pdf.

[59] Verizon Wireless 4G LTE broadband customers – working in real-world, fully-loaded network environments – have experienced typical download speeds of 5 to 12 Mbps and typical upload speeds of 2 to 5 Mbps. *See* Verizon Wireless News Release, *Verizon Wireless Introducing High-Speed 4G LTE Data Network in Redding, California* (Aug. 16, 2012), http://news.verizonwireless.com/news/2012/08/pr2012-08-16k.html. Independent testing of Verizon Wireless's 4G service in 15 cities nationwide confirmed average download speeds as high as 15.2 Mbps and upload speeds of 7.97 Mbps. Bill Moore, *Solving the LTE Puzzle: Comparing LTE Performance*, Gigaom (Apr. 14, 2012), http://gigaom.com/2012/04/14/solving-the-lte-puzzle-comparing-lte-performance/. Other third-party tests likewise showed average download speeds in excess of the Commission's threshold, and within the average range cited by Verizon Wireless. *See, e.g.*, Sascha Segan, *Fastest Mobile Networks 2012*, PCMag (June 18,

The shift away from the PSTN to alternative IP-based services also is evident from consumer usage data. According to the Commission's most recent data, for example, the number of local calls reported by large ILECs has declined from a peak of 553.9 billion calls in 1999, to just 235.4 billion calls in 2007 (a 57-percent decrease).[60] Within the last three years for which data are available, the number of local calls on the PSTN decreased by an average of 15 percent each year.[61] By contrast, Americans are using their wireless phones at a rate of 2.32 trillion minutes per year, as of June 2012, an 18-percent increase over the 1.96 trillion minutes used five years earlier.[62]

The widespread use of text messaging, e-mail, and instant messaging also has displaced the need to make wireline telephone calls. More than 184 billion text messages are sent each month – or nearly 2.3 trillion text messages annually – an 843-percent increase over the 240.8 billion text messages sent annually just five years ago.[63] By one estimate, the average e-mail

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2012), http://www.pcmag.com/article2/0,2817,2405597,00.asp ("Verizon's LTE swept the board" in 30 test cities, with an average download speed of 8.89 Mbps and an average upload speed of 6.46 Mbps); Mark Sullivan, *3G and 4G Wireless Speed Showdown: Which Networks Are Fastest?*, PCWorld (Apr. 16, 2012), http://www.pcworld.com/article/253808-5/3g_and_4g_wireless_speed_showdown_which_networks_are_fastest.html (Verizon LTE averaged 7.35 Mbps for downloads and 5.86 Mbps for uploads in 13 test cities).

[60] *See* Ind. Anal. & Tech. Div., Wireline Competition Bureau, *Trends in Telephone Service*, at Table 10.2 (Sept. 2010), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

[61] *See id.*

[62] *See* CTIA: The Wireless Association, *Wireless Quick Facts* (June 2012), http://www.ctia.org/consumer_info/service/index.cfm/AID/10323 (annualized minutes of use, June 2007 and June 2012).

[63] *See id.* (monthly and annualized text messages, June 2007 and June 2012).

user receives 147 messages per day, more than half of which do not get deleted.[64] One industry analyst estimates that 89 billion business e-mails were sent and received each day in 2012, and projects this figure to grow at an average annual rate of 13 percent over the next four years, reaching over 143 billion e-mails by the end of 2016.[65] The same report estimates there were 2.7 billion instant messaging accounts worldwide in 2012, which will grow to 3.4 billion accounts by the end of 2016.[66]

Social media have also displaced the need to make telephone calls. For example, Facebook reports that approximately 60 percent of its monthly active users use Facebook mobile products.[67] Google+, which competes with Facebook and other social media sites, now has more than 135 million monthly active users of its website and mobile app, up from 100 million in September 2012.[68] Twitter – a social networking site to which users post 140-character messages to communicate with one another – has more than 141.8 million accounts in the United

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[64] Laura Vanderkam, *Stop Checking Your Email, Now*, CNNMoney.com (Oct. 8, 2012), http://management.fortune.cnn.com/2012/10/08/stop-checking-your-email-now/ (citing an analysis by Baydin, an e-mail management service).

[65] Sara Radicati, The Radicati Group, *Email Statistics Report: 2012-2016* (Apr. 23, 2012), http://www.radicati.com/wp/wp-content/uploads/2012/04/Email-Statistics-Report-2012-2016-Executive-Summary.pdf ("*The Radicati Group Email Statistics Report*"). According to an earlier report by The Radicati Group, approximately 14 percent of worldwide email users were in North America. The Radicati Group, *Email Statistics Report: 2010-2014* (Apr. 14, 2011), http://www.radicati.com/wp/wp-content/uploads/2010/04/Email-Statistics-Report-2010-2014-Executive-Summary2.pdf.

[66] *The Radicati Group Email Statistics Report*.

[67] Facebook, *Key Facts*, http://newsroom.fb.com/Key-Facts.

[68] Amir Efrati, *Google+ Announces 135 Million Users, Debuts Instagram Competitor*, Wall St. J. Digits Blog (Dec. 6, 2012), http://blogs.wsj.com/digits/2012/12/06/google-announces-135-million-users-debuts-instagram-competitor/.

States.[69] LinkedIn, which claims to operate "the world's largest professional network on the Internet," reports 74 million users in the United States.[70]

Indeed, the multiplicity of ways that consumers now communicate demonstrates the dynamic, mix-and-match nature of competition today. The lines between networks, applications and content, and devices are becoming increasingly blurred, with consumers having a broader range of choices (and providers having a broader range of both partners and competitors) than ever before. A particular consumer interested in voice communications, for example, may be more focused on her device, her preferred application, or the network that she perceives as most robust. The result is that all members of the ecosystem increasingly collaborate *and* compete with one another in order to better attract and serve consumers. This mix-and-match competition – and the associated innovation, investment, and competition – has provided consumers more choices, new services, lower prices, and many other benefits.

C. Changes in the Competitive Landscape

The emergence of new IP and broadband technologies together with demand for new broadband services has given rise to a highly competitive and dynamic marketplace. Competition is no longer focused on offering discrete communications services (voice, video, data) over distinct single-purpose networks. Multiple providers – including device, application, and network providers – now compete to provide consumers with access to a full range of

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[69] Semiocast, *Twitter Reaches Half a Billion Accounts, More Than 140 Million in the U.S.* (July 30, 2012), http://semiocast.com/publications/2012_07_30_Twitter_reaches_half_a_billion_accounts_140m_in_the_US (141.8 million U.S. Twitter accounts were created before July 1, 2012; these users posted 25.8 percent of all public tweets in June 2012).

[70] LinkedIn Corp., Form 10-Q, at 2 (SEC filed Mar. 2, 2012), http://www.sec.gov/Archives/edgar/data/1271024/000119312512094556/d260171d10k.htm; Deep Nishar, *200 Million Members!*, LinkedIn Blog (Jan. 9, 2013), http://blog.linkedin.com/2013/01/09/linkedin-200-million/.

communications services, including voice. With no historical dominant provider of these IP-enabled services, and multiple competitors offering service over different platforms, the competitive landscape is radically different from the one that existed when the Communications Act of 1934 was enacted and that persisted for many decades thereafter.

As noted above, cable operators have invested heavily – free of the most onerous regulatory restraints that ILECs face – to deploy broadband networks that pass more than 93 percent of U.S. households. Analysts estimate that cable accounted for 89 percent of broadband net adds in 2012.[71] There are three or more wireless competitors in areas covering over 97 percent of the U.S. population, as shown by the Commission's own data.[72] Satellite broadband services recently became available "in all 50 states."[73] And other providers have begun trial deployments: for example, in July 2011, Google began laying fiber in Kansas City and is expanding its 1 Gbps service across neighborhoods in Kansas City, Kan. and Kansas City, Mo.[74]

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[71] Mike McCormack et al., Nomura Equity Research, *Wireline Broadband Capacity Concerns. . . Video Driving Rapid Data Usage Growth*, at 2, Figure 1 (Dec. 27, 2012).

[72] *See Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Fifteenth Report, 26 FCC Rcd 9664, ¶ 45, Table 5 (2011) ("*Fifteenth CMRS Report*") (as of 2010, there were three or more providers in Census Blocks covering 97.2 percent of the U.S. population, and four or more providers in Census Blocks covering 94.3 percent of the U.S. population).

[73] ViaSat Press Release, *Exede High-Speed Internet To Be Offered by DIRECTV in New Video/Broadband Bundle* (May 17, 2012), http://www.viasat.com/news/exede-high-speed-internet-be-offered-directv-new-videobroadband-bundle.

[74] Google Fiber Blog, *Boots on the Ground in Kansas City* (July 25, 2011), http://googlefiberblog.blogspot.com/2011/07/boots-on-ground-in-kansas-city.html; Google Fiber Blog, *Google Fiber Installations Kick Off Today* (Nov. 13, 2012), http://googlefiberblog.blogspot.com/2012/11/google-fiber-installations-kick-off.html; Google Fiber, *About*, https://fiber.google.com/about/; Google Fiber, *Welcome to Fiber Cities*, https://fiber.google.com/cities/#header=check.

II. REGULATION SHOULD REFLECT THE SHIFT IN THE COMMUNICATIONS LANDSCAPE AND FURTHER THE CONSUMER-LED TRANSITION TO BROADBAND AND IP-BASED SERVICES

The communications landscape has changed radically since the 1934 and 1996 Acts. Those laws and the Commission's implementing regulations were designed for a world in which the narrowband PSTN was the only option for accessing communications services. Today, as demonstrated above, myriad competitive IP-enabled broadband networks have replaced the monolithic PSTN for a large and growing majority of consumers. The Commission should ensure that legacy regulation does not hamper the market forces that have created these new consumer options and benefits.

The Commission is already familiar with the need to adapt old regulation to new marketplace realities. In the *USF-ICC Transformation Order*, the Commission replaced the "outdated" universal service and intercarrier compensation systems to "address[] the communications infrastructure challenges of today and tomorrow."[75] Those systems were "based on decades-old assumptions that fail to reflect today's networks, the evolving nature of communications services, or the current competitive landscape."[76] The Commission should take similar steps here and encourage and facilitate the transition to IP-based broadband networks by eliminating legacy regulations that would otherwise impede it.

Instead of attempting to determine which if any outmoded regulations should apply to new IP-based broadband networks and services, the Commission should take steps to further the ongoing transition to IP and broadband and get rid of regulation that serves no purpose or that, in some cases, may undermine these pro-consumer developments. The Commission should not, in

[75] *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, ¶ 1 (2011) ("*USF-ICC Transformation Order*").

[76] *Id.* ¶ 6.

other words, apply a top-down approach that first retrofits legacy regulations to new broadband and IP-based networks and services, and only then determines which regulations could be abolished. Nor should the Commission assume that regulation is the best or only way to protect consumers. As the Commission has recognized, regulation is a surrogate for competition and should be deployed judiciously only where market forces have failed.[77] Thus, the Commission's first choice should be to allow market forces to function and protect consumers.

A. The Commission Should Confirm That All IP-Enabled Services Are Inherently Interstate Services

In light of the evolving competitive and technological landscape, the Commission should reaffirm that IP-enabled services are exclusively interstate for jurisdictional purposes. As the Commission has already found in the *Vonage Order*,[78] the interstate and intrastate components of

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[77] *See, e.g., Amendment of 47 CFR § 73.658(j)(1)(i) and (ii), the Syndication and Financial Interest Rules*, Tentative Decision and Request for Further Comments, 94 FCC 2d 1019, ¶ 107 (1983) ("[T]he Commission should not intervene in the market except where there is evidence of a market failure and a regulatory solution is available that is likely to improve the net welfare of the consuming public, *i.e.*, does not impose greater costs than the evil it is intended to remedy."); *Orloff v. Vodafone AirTouch Licenses LLC, d/b/a Verizon Wireless*, Memorandum Opinion and Order, 17 FCC Rcd 8987, ¶ 22 n.69 (2002) (in absence of market failure, Commission will "rel[y] on market forces, rather than regulation"); *Implementation of Sections 3(n) and 332 of the Communications Act Regulatory Treatment of Mobile Services*, Second Report and Order, 9 FCC Rcd 1411, ¶ 173 (1994) ("[I]n a competitive market, market forces are generally sufficient to ensure the lawfulness of . . . terms and conditions of service by carriers who lack market power."); *Access Charge Reform*, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221, ¶ 256 (1999) (the Commission "strongly prefers not to intervene in the marketplace . . . unless intervention is necessary to fulfill [its] statutory obligation to ensure just and reasonable rates" and will "seek the least intrusive means possible to correct any market failures" that do occur); *Cellco Partnership v. FCC*, 357 F.3d 88, 96 (D.C. Cir. 2004) (Commission's authority to impose regulations is not unbounded; it may adopt regulations only "upon finding that they advance a legitimate regulatory objective."); *Preserving the Open Internet and Broadband Practices*, Report and Order, 25 FCC Rcd 17905, ¶ 74 (2010) (recognizing "Congress's intent that [the Commission's] rules in the Internet area should not 'fetter[]' the free market with unnecessary regulation.").

[78] *See Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404, ¶¶ 29-32 (2004) ("*Vonage Order*").

VoIP services are, as a practical matter, inseverable, and therefore inherently interstate. That is even more true today than it was at the time of the *Vonage Order*, as the web of interconnected broadband networks used to provide IP-enabled services continues to grow without regard to geography and it has become increasingly difficult and meaningless to determine the jurisdictional nature of IP traffic.

Nevertheless, even in the face of the Commission's clear intent to create regulatory certainty with the *Vonage Order*, some state commissions have continued to assert authority to regulate VoIP services. The Commission should once and for all make clear that VoIP and other IP-enabled services are interstate for jurisdictional purposes and therefore not subject to a patchwork of 50 different state regulatory regimes that would slow the transition to IP networks and add costs that would serve no purpose but to meet the ensuing disparate state regulatory requirements.

The standard for determining whether a communications service is interstate or intrastate in nature is not whether it is somehow technologically possible to carve out a purely intrastate service. Rather, the dispositive question is whether it is "economically feasible," in light of "practical and economic considerations," to separate interstate communications from intrastate communications.[79] That focus on economic and practical considerations reflects the long-standing rule that carriers are not required to expend resources or to modify their services "merely to provide state commissions with an intrastate communication they can then regulate."[80]

[79] *See California v. FCC*, 39 F.3d 919, 932-33 (9th Cir. 1994); *see also Vonage Order* ¶ 23.

[80] *Minnesota Pub. Utils. Comm'n v. FCC*, 483 F.3d 570, 578 (2007).

The Commission concluded that Vonage's VoIP service is practically inseverable for jurisdictional purposes because the characteristics of that service "preclude any practical identification of, and separation into, interstate and intrastate communications."[81] The Commission focused on the "inherent capability of IP-based services to enable subscribers to utilize multiple service features that access different websites or IP addresses during the same communication session and to perform different types of communications simultaneously."[82] Such "functionalities in all their combinations form an integrated communications service designed to overcome geography, not track it."[83] The Commission thus relied on this finding of "practical inseverability" to find that the states are preempted from imposing traditional telephone regulation on Vonage's VoIP service. The Commission expressly noted that, "[e]ven . . . if" Vonage were able to "identify[] the geographic location of a [Vonage VoIP] subscriber" at the time she placed a call, the FCC would still find that Vonage's service is inseverable.[84] And in the *USF-ICC Transformation Order*, the Commission again rejected claims that it should distinguish among types of VoIP services for regulatory purposes.[85]

The Commission did not limit its inseverability analysis to Vonage's specific service.[86] Instead, the Commission explained that the "integrated capabilities and features" that render Vonage's service inseverable – and, therefore, exclusively interstate for jurisdictional purposes –

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[81] *Vonage Order* ¶ 14.

[82] *Id*. ¶ 25.

[83] *Id.*

[84] *Id.* ¶ 23.

[85] *See USF-ICC Transformation Order* ¶ 954 n.1942.

[86] *See Vonage Order* ¶ 24.

"are not unique to [Vonage's service], but are inherent features of most, if not all, IP-based services."[87] As a result, the Commission recognized that "other types of IP-enabled services having basic characteristics similar to" Vonage's service are also "practical[ly] inseverab[le]."[88] The Commission found that "facilities-based providers," including "cable companies," offer VoIP services that share those basic characteristics and, therefore, are practically inseverable, no different from Vonage's service.[89]

B. The Commission Should Revise or Eliminate Certain Legacy Regulations That May Impede Technology Transitions

In order to further the ongoing transition in the context of the competitive broadband environment, the Commission also should take the immediate step of removing or revising legacy regulations that have outlived their usefulness and that may interfere with or slow ongoing technology transitions. Providers of all types should compete on a level playing field as they compete with new broadband networks and services. The Commission has long held that "disparate treatment of carriers providing the same or similar services is not in the public interest as it creates distortions in the marketplace that may harm consumers."[90]

1. Rules Governing Notices of Network Changes

Section 251(c)(5) of the 1996 Act creates a "duty to provide reasonable public notice of changes in the information necessary for the transmission and routing of services using that local

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[87] *Id.* ¶ 25 n.93.

[88] *Id.* ¶ 32.

[89] *Id.* ¶¶ 25 n.93, 32.

[90] *Petition of ACS of Anchorage, Inc. Pursuant to Section 10 of the Communications Act of 1934, as Amended (47 U.S.C. § 160(c)), for Forbearance from Certain Dominant Carrier Regulation of Its Interstate Access Services, and for Forbearance from Title II Regulation of Its Broadband Services, in the Anchorage, Alaska, Incumbent Local Exchange Carrier Study Area*, Memorandum Opinion and Order, 22 FCC Rcd 16304, ¶ 129 (2007).

exchange carrier's facilities or networks, as well as any other changes that would affect the interoperability of those facilities and networks." 47 U.S.C. § 251(c)(5). The Commission has interpreted this duty to obligate one class of providers – ILECs – to provide public notice of "network changes," which includes both specific activities such as "the replacement of [copper] loops with fiber-to-the-home loops," 47 C.F.R. § 51.325(a)(4), as well as broad categories like anything that "[w]ill affect a competing service provider's performance or ability to provide service."[91] These rules are highly duplicative: a carrier must provide notice directly to affected wholesale and retail customers, also provide notice of the network changes on the carrier's website, and then file with the Commission a superfluous notice announcing the same network change. 47 C.F.R. §§ 51.325-51.333. The rules also allow parties seeking to delay the replacement of copper with fiber to file objections to the notice filed with the Commission, which results in a process that can take three months or more to resolve before ILECs are allowed to retire the copper, even when they no longer use it to serve their customers. *Id.* §§ 51.333(d)-(f).

The Commission should eliminate the requirement that ILECs file with the Commission their notice regarding network changes as they replace older networks with new ones, and particularly those involving the replacement of copper with fiber facilities. A significant percentage of the network changes made today are directly related to upgrades and investment related to the rollout of new broadband networks. The extra paperwork requirements in the Commission's rules and opportunities for delay that they create inject unnecessary uncertainty as

[91] 47 C.F.R. § 51.325(a)(1). *See also* 47 C.F.R. §§ 51.329(a)(2), 51.333(a), 51.333(b)).

providers transition to newer broadband networks. The Commission should recognize that proper notice given to the customer directly and on the carrier's website is more than sufficient.[92]

The Commission should also eliminate the objection and review process that enables competing carriers to interfere with Verizon's and other ILEC's decision to retire older copper networks that are no longer needed to serve customers.[93] Competing carriers should receive reasonable notice of network changes, but should not be given the opportunity to delay such changes for their own competitive advantage or other reasons.[94]

2. Unbundling of 64 Kbps Transmission Path on FTTH Loop Where Copper Has Been Retired

In the *Triennial Review Order*, the Commission correctly concluded that providing unbundled access to newly deployed fiber-to-the-home would deter fiber investment and should not be required as a matter of law and policy. The Commission held, however, that "in fiber loop overbuild situations where the incumbent LEC elects to retire existing copper loops,"

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[92] *Biennial Regulatory Review of Regulations Administered by the Wireline Competition Bureau*, Notice of Proposed Rulemaking, 19 FCC Rcd 764, ¶ 19 (2004) (Part 51 rules "may have become unnecessarily complicated in light of carriers' ability to provide notice of changes and other information via the Internet."), *citing* Wireline Competition Bureau, *Biennial Regulatory Review 2002*, Staff Report, 18 FCC Rcd 4622, 4659 (2002).

[93] Under the current Part 51 rules, short-term network changes cannot be implemented until after a Bureau-initiated Public Notice. For example, between December 1, 2011 and April 5, 2012, the Commission issued 28 public notices, and the average gap between the carrier website notice and the related Commission public notice was over three months. *See* Comments of Verizon at 9, *Petition of USTelecom for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61 (FCC filed Apr. 9, 2012). Verizon's own experience has been similar, and not a single customer has challenged any of Verizon's network changes in this time period. There is no reason why the Commission cannot rely on the carrier's notice, instead of a Bureau-initiated notice, to act as the trigger to start any necessary waiting periods or related obligations.

[94] *See also Commission 2010 Biennial Review of Telecommunications Regulations*, Public Notice, 26 FCC Rcd 16943, 16944 (2011) ("*2010 Biennial Review Public Notice*") (recognizing "that some of the Part 51 rules . . . may no longer be necessary in the public interest as a result of meaningful economic competition.").

competing carriers should have access to a 64 kbps voice-grade channel over the fiber in order to compete for narrowband services.[95] Thus, today ILECs, and only ILECs, are required either to keep the existing copper loop connected after deploying fiber to the home, or, if the ILEC has retired the copper loop, to "provide unbundled access to a 64 kbps transmission path over its FTTH loop."[96] The Commission should now eliminate these requirements that force ILECs either to incur wasteful costs associated with maintaining two redundant networks (one of which is unnecessary to serve our customers), or provide competing carriers access to brand-new networks without having borne the substantial risks of the investments funding them. By contrast, any consumer benefits of this requirement are minimal at best, as consumers continue to transition from traditional voice services to other communications options. Nor is this path necessary to ensure customers access to service, in light of the rapid growth of competition.

3. Approval Requirements Related to the Entry and Exit of Services

Currently, the Commission's rules provide unnecessary service entrance and exit requirements, including a detailed notice and review process when a common carrier seeks to discontinue, reduce, or impair service. *See* 47 U.S.C. § 214, 47 C.F.R. §§ 63.60, 63.61, 63.62, 63.63, 63.71(a)(5), 63.71(c), 63.90(a)(8). Section 214, the statutory underpinning of these rules, was enacted in 1934, and was premised on the concern that consumers would lose the only available option for telephone service if the ILEC decided to stop offering service for whatever reason.[97] But in today's evolving communications landscape, where customers have access to

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[95] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, ¶ 277 (2003) ("*Triennial Review Order*").

[96] *Id*.

[97] *See, e.g.*, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Notice of Proposed Rulemaking, 11 FCC Rcd 14171, ¶ 4 (1996) ("In contrast to the

multiple types of communications over a variety of platforms, the current approval requirements are no longer necessary. In instances where consumers have access to other providers and services, it should be sufficient for customers to receive reasonable notice, and there should be no need of the current public notice and approval process (and attendant delays) as providers respond to consumer demand by offering new or discontinuing older services.

Of course, even under today's rules, no discontinuance requirement applies when a carrier simply changes the technology used to provide a customer's service – such as switching a voice service from a copper to a fiber platform – because the underlying "service" remains available (and in many cases will in fact include additional beneficial features). This is consistent with the general approach adopted in the *USF-ICC Transformation Order*, where the Commission took steps to "simply shift[] to a technologically neutral approach, allowing companies to provision voice service over any platform, including the PSTN and IP networks."[98] The Commission concluded that "[t]his modification will benefit both providers (as they may invest in new infrastructure and services) and consumers (who reap the benefits of the new technology and service offerings)."[99]

1996 Act, the common carrier provisions of the Communications Act of 1934 were grounded in the notion that interstate telecommunications services would be offered and regulated on a monopoly basis. . . . The monopoly paradigm was thought to further goals of universal service, service quality, and reliability."). *See also IP-Enabled Services*, Report and Order, 24 RCC Rcd 6039, ¶ 6 (2009) (The Commission "normally will authorize the proposed discontinuance 'unless it is shown that customers would be unable to receive service or a reasonable substitute from another carrier.'").

[98] *USF-ICC Transformation Order* ¶ 78.

[99] *Id.*

4. Eligible Telecommunications Carrier ("ETC") Universal Service Requirements and State Carrier of Last Resort ("COLR") Requirements (Where Still Applicable)

Legacy ETC service requirements on the federal side and state COLR requirements on the state side need to change, and in many cases be eliminated. In competitive markets these requirements do not make sense. ETC and COLR service requirements often force just one provider to offer supported services throughout large designated areas, even where that provider receives no universal service support. *See, e.g.*, 47 U.S.C. § 214, 47 C.F.R. § 54.201, *et seq*. Particularly where consumers have multiple options from different providers and technologies, it is unnecessary to maintain legacy service requirements designed for a monopoly environment that is long gone. There are increasingly fewer areas where the market would not reach but for universal service fund ("USF") support.[100] In those few remaining areas, clearly defined service requirements that are narrowly tailored to meet the Commission's revamped, broadband-focused universal service goals are appropriate. Elsewhere, the Commission should free up providers' resources to upgrade their networks and deliver faster services to their customers.

There is no legitimate policy reason to require carriers to serve areas where it is not profitable to do so and where consumers have other alternatives. To address these issues the Commission should take action on its pending Further Notice of Proposed Rulemaking,[101] and at a minimum establish a federal policy for ETC requirements that applies service obligations in places and to providers only in exchange for actual receipt of USF funding to satisfy those

[100] *See December 2011 Local Competition Report* at 1-8; *see also June 2011 Internet Access Report* at 1-13.

[101] *See Connect America Fund, et al.,* Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, ¶¶ 1089-1102 (2011).

obligations. The Commission should also confirm that any inconsistent state regulations such as continuing COLR obligations in certain areas are preempted.[102]

With respect to important services offered to low-income consumers through the Lifeline program the Commission should, likewise, take a hard look at what service requirements make the most sense for consumers. Lifeline is rapidly becoming a predominantly wireless program.[103] Many prepaid wireless providers (providers that are not traditional ETCs) with business models tailored to the needs of low-income consumers have emerged to serve Lifeline participants. And like many households that have cut the cord entirely or are relying predominantly on wireless voice services, Lifeline beneficiaries are rapidly switching to wireless providers.[104] In fact, low-income households are among the most likely to cut the cord.[105] Given these clear trends, the Commission should separate the Lifeline program from other universal service programs, removing Lifeline as a condition of ETC status, and moving away from the current focus on Lifeline serviced provided by ILECs.

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[102] *See Vonage Holdings Corp. v. Minnesota Pub. Utils. Comm'n*, 290 F. Supp. 2d 993, 997, 1001-03 (D. Minn. 2003); *see also Geier v. American Honda Motor Co.*, 529 U.S. 861, 873 (2000) (state law is preempted if it "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress").

[103] *See, e.g.*, Federal Communications Commission Response to United States House of Representatives Committee on Energy and Commerce Universal Service Fund Data Request of July 9, 2012, Request 3, at 3-1 to 3-13, http://transition.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/2012responses.pdf (2012).

[104] *See id.*

[105] *See CDC Wireless Substitution Report* at 3 ("Adults living in poverty (51.8%) were more likely than adults living near poverty (42.3%) and higher income adults (30.7%) to be living in households with only wireless telephones.").

5. Equal Access Obligations

The 1996 Act carried forward the equal access requirements (including the scripting requirements) that were first imposed in the 1984 AT&T Consent Decree, which were designed to promote competition in what was then a distinct interexchange market. *See* 47 U.S.C. § 251(g).[106] The 1996 Act required ILECs to continue to provide equal access "until such restrictions are superseded by regulations prescribed by the Commission after February 8, 1996." 47 U.S.C. § 251(g).

Equal access obligations no longer serve a useful purpose, and, to be clear, do not apply to IP-based services. On wireline and wireless networks alike, all-distance services have replaced once-separate markets for local and long-distance services.[107] Next-generation networks do not have physical divisions between Class 5 (local) switches and long-distance POPs; any attempt to impose equal access is therefore highly artificial, and requires carriers to undertake efforts that are not necessary to protect consumers or competition.

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[106] *See, e.g.*, *Notice of Inquiry Concerning a Review of the Equal Access and Nondiscrimination Obligations Applicable to Local Exchange Carriers*, Notice of Inquiry, 17 FCC Rcd 4015, ¶ 3 (2002) ("[S]ection 251(g) imports the obligations of the Modification of Final Judgment (MFJ), the consent decree that settled the Department of Justice's antitrust suit against AT&T and required divestiture of the BOCs, as well as Commission equal access requirements. . . . The MFJ, and the court cases that interpreted it . . . reflect concerns that existed at a time when [the BOCs] were the monopoly providers of local services and were prohibited from offering interexchange services."); *2010 Biennial Review Public Notice* ("WCB recommends that the Commission: (1) consider revising the carry-over equal access obligations preserved by section 251(g) in its *Equal Access Notice of Inquiry* proceeding," citing the Notice of Inquiry in CC Docket No. 02-39).

[107] *See, e.g.*, *USF-ICC Transformation Order* ¶ 76 ("[T]he telecommunications marketplace has changed significantly since 1997. For example, the 'distinction between local and long distance calling is becoming irrelevant in light of flat rate service offerings that do not distinguish between local and toll calls.'"); *Fifteenth CMRS Report* ¶ 81 ("Today, all of the nationwide service providers, and many smaller operators, offer some version of a national flat-rate pricing plan in which customers can purchase a 'bucket' of minutes to use on a nationwide or nearly nationwide network without incurring roaming or long-distance charges.").

6. Other Regulations

As set forth in Appendix A, there are a number of other regulations that also should be eliminated because they no longer make sense or serve a useful purpose in light of the transition to a competitive IP-based broadband environment. As the Commission and the President have repeatedly recognized in recent years, basic tenets of good government require the removal of regulations that have outlived their usefulness and that impose unnecessary burdens on parties.

C. The Commission Should Complete Access Charge Reform and Transition Down Originating Access Rates

The Commission has undertaken important, fundamental reform and modernization of the intercarrier compensation system, including reductions in terminating access charges. Now, the Commission should take additional steps to complete the job and achieve fully its goal of "an incentive-based, market-driven approach that can reduce arbitrage" and "enable carriers to invest modern, IP networks."[108] Specifically, the Commission should transition originating switched access rates down using a framework similar to that now in place for terminating rates.

Originating access charges remain too high in many cases and should be reduced just as the Commission required for terminating access.[109] And like switched access terminating rates, originating access rates vary to an illogical extreme for performing the same function. The Commission has acknowledged that, although a "permanent regime for section 251(b)(5) traffic" cannot govern origination charges, the Commission can address such charges as part of its transition regime.[110] The Commission should – at a minimum – set a schedule for transitioning down originating access rates.

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[108] *USF-ICC Transformation Order* ¶ 9.

[109] *See USF-ICC Transformation Order*, ¶¶ 1297-1304.

[110] *Id.* ¶ 961 n.1976.

Moreover, as a first step, the Commission should act immediately to reduce originating access charges on toll-free, 8YY-dialed traffic. While consumers are able to choose all-distance services from the same provider for most originating calls, the same is not true of toll-free traffic, where the carrier that serves the toll-free customer pays originating access charges to the carrier that delivers the traffic to it. Verizon continues to experience inflated invoices for 8YY database dip charges, involving similar scenarios to terminating access charge traffic pumping. These autodialer fraud schemes involving 8YY numbers, like other types of traffic pumping, have recently been the subject of litigation in federal court.[111]

Several CLECs, for example, have engaged in an autodialer scheme that not only costs carriers and their customers, but also results in harassing hang-up calls at all hours to the carriers' 8YY customers. The 8YY callers use autodialer machines that sequentially dial 8YY numbers, even though Section 227(b) of the Communications Act explicitly prohibits using an automatic dialing system to place calls to a service for which the called party is charged for the call.[112] The callers make no attempt to speak with the call recipient; the calls are either hang-up calls lasting only a few seconds or are fax machine calls. The CLECs generate revenue from the 8YY database dip charges, which they charge to the carriers.

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[111] *See Connect Insured Telephone, Inc. v. Qwest Long Distance, Inc.*, No. 3:10–CV–1897–D, 2012 WL 2995063, *10 (N.D. Tex. July 23, 2012) (opinion describing Qwest's allegations of "toll-free origination traffic generated by autodialing"); Second Amended Counterclaim, *1st United Telecom, Inc. v. MCI Communications Services*, No. 3:10-CV-02255-B, 2012 WL 2339778 (N.D. Tex. filed Apr. 16, 2012) (pleading alleging similar activity). For a less recent example, see *David v. Lappin*, Nos. CR 02-0062 SI et al., 2008 WL 2705019, *1 (N.D. Cal. July 9, 2008) (denying a writ of habeas corpus to a prisoner convicted of mail fraud as a result of a scheme involving autodialers).

[112] *See* 47 U.S.C. § 227(b).

Verizon uncovered the existence of these fraudulent schemes by analyzing unusual invoices submitted by CLECs.[113] In the case of one CLEC, for example, the last invoice a carrier had submitted in approximately 18 months was approximately $3,000, and then after this long period of inactivity Verizon received an invoice for approximately $95,000. Verizon conducted an audit of the CLEC's call detail records in which it identified call volumes, patterns, and durations. This audit determined that the calls had been fraudulently made for the purpose of incurring interstate and intrastate switched access charges that were then billed to Verizon.

Other carriers have reported similar frauds. For example, Qwest filed suit against a CLEC that tried to bill Qwest for over 3 million interstate 8xx database dips in one month alone, a much higher total than previous months.[114] On investigating, Qwest determined that these calls had a median duration of less than two seconds, and that once the phone call was picked up, there was a fax-like tone, and the call disconnected. Qwest traced the origin of the short-duration calls to a facility at which one computer was connected to approximately 120 telephone lines.

Thus, the sensible place to start to implement originating access reform is with this 8YY traffic, which is more similar to terminating access than originating access charges on 1+ dialed traffic.

III. THE COMMISSION SHOULD REJECT EFFORTS TO ADOPT NEW REGULATION ON BROADBAND NETWORKS AND SERVICES

In addition to these steps that the Commission should take to further the pro-consumer technology transition, it also should reject some parties' efforts to replace consumer-driven

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[113] *See* Second Amended Counterclaim, *1st United Telecom, Inc. v. MCI Communications Services*, No. 3:10-CV-02255-B, ¶¶ 3-6.

[114] *See* Qwest's Brief in Support of Partial Motion for Summary Judgment on Qwest Counterclaims and Motion for Summary Judgment on All of Plaintiff's Claims, *Connect Insured Telephone, Inc. v. Qwest Long Distance Inc.*, No. 10CV01897 (N.D. Tex. filed Feb. 28, 2012), 2012 WL 2148212.

market and technological forces with expansive, new regulation of broadband networks and services that would undermine continued innovation and investment.

A. Commercially Negotiated Agreements Will Lead to Efficient IP Interconnection for Voice

As Verizon has demonstrated at length elsewhere, current interconnection options for VoIP have allowed VoIP to flourish.[115] As VoIP grows more popular, existing business incentives to interconnect in IP format will only grow stronger. Negotiated commercial agreements will ensure that IP interconnection for voice continues to develop efficiently. And not only does the Communications Act not require interconnection in any particular format, a regulatory mandate for IP interconnection could have perilous unintended consequences, including spillover to the Internet backbone and encouraging international regulators to regulate the Internet.

The market-based transition to IP interconnection for voice is already starting to occur, in a manner consistent with the Commission's longstanding hands-off policy towards regulating interconnection of Internet networks. Carriers today have an obligation to accept IP-originated traffic,[116] and that obligation is not at issue in the interconnection debate. In part because carriers

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[115] *See, e.g.*, Comments of the Verizon Telephone Companies, *IP-Enabled Services*, WC Docket No. 04-36 et al. (FCC filed May 28, 2004); 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).

[116] *See Petition of CRC Communications of Maine, Inc. and Time Warner Cable Inc. for Preemption Pursuant to Section 253 of the Communications Act, As Amended*, Declaratory Ruling, 26 FCC Rcd 8259, ¶ 11 (2011); *Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection Under Section 251 of the Communications Act of 1934, As Amended, To Provide Wholesale Telecommunications Services to VoIP Providers*, Memorandum Opinion and Order, 22 FCC Rcd 3513, ¶ 8 (2007); *MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 FCC 2d 682, ¶¶ 75-76 (1984); *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, As Amended*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, ¶ 251 n.625 (1996) (describing prior orders).

have these existing duties, current TDM-based interconnection arrangements have not impeded VoIP's development in the least. To the contrary, VoIP has flourished.

As more and more customers move to VoIP, more and more voice traffic will have IP on both ends of a call, instead of just one end. As the number of VoIP subscribers grows, so will VoIP providers' incentives to interconnect in IP. And as this occurs, terminating providers will have increasing incentives to interconnect in IP.

Companies today already are connecting with one another and sending each other IP voice traffic over IP connections. As a logical matter, the place to start this transition to IP interconnection for voice was with interexchange traffic, because many companies transport interexchange traffic in their own networks today using IP format and have natural incentives to exchange that traffic with others in IP. Likewise, any-distance wireless traffic in many instances is being transported and exchanged between carriers in IP format today. These exchanges frequently take advantage of services that allow VoIP providers to connect with their networks in IP. In addition to Verizon, providers like Level 3,[117] AT&T,[118] CenturyLink,[119] and XO[120] all offer services that provide an IP-based connection to a VoIP provider and route VoIP traffic to whatever destination it needs to reach.

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[117] Level 3, *Voice Termination*, http://www.level3.com/en/products-and-services/voice/wholesale-voice/voice-termination/.

[118] AT&T, *VOIP*, http://www.business.att.com/wholesale/Family/ip-solutions-wholesale/voip-wholesale/.

[119] CenturyLink, *IP Voice Solutions*, http://www.centurylink.com/wholesale/national/ipvoice.html.

[120] XO Communications, *VoIP Termination*, http://www.xo.com/services/carrier/voip1/Pages/termination.aspx.

As more and more customers switch to VoIP services, companies will have natural incentives to explore interconnecting in IP to exchange IP-originated traffic. As with any transition to new technologies and network architectures, this process naturally will be iterative. Verizon currently has one agreement in place covering its FiOS Digital Voice VoIP traffic, and has been negotiating with close to a dozen other providers. As more and more services become IP, providers will naturally expand their IP interconnections for voice efficiently, through negotiated agreements by which two willing parties find a match and work out the technical details.

The Commission should not interfere with this natural process and require interconnection in any particular format. Verizon and other providers are pursuing efficient IP interconnection arrangements and IP-based networks on their own, without a regulatory requirement. IP interconnection for voice services offers efficiencies that result from the vast differences between the legacy circuit-switched TDM network architecture and an IP-based network architecture. To maximize those efficiencies, IP voice interconnection efforts should focus on maximizing the efficiencies of IP technology.

Relying upon commercially negotiated voluntary agreements for IP interconnection has an important precedent. The Internet, itself, is a series of individual networks owned and operated by many different entities that entered into purely voluntary interconnection agreements over time, without a regulatory mandate.[121] Those agreements may contain different terms, depending on the various networks' needs, but each assumes a perceived equitable value exchange between the interconnecting parties. These negotiated, commercial agreements have been tremendously successful, and they have fueled the rapid growth in the Internet's capacity.

[121] *See* Comments of Verizon, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, at Exhibit A, Declaration of Lyman Chapin ¶¶ 5-8 (FCC filed May 23, 2005).

They have created a flexible framework for networks to evolve in order to address new demands quickly. While some networks interconnect directly, others interconnect via other forms of arrangements through third parties. But whether two networks are directly or indirectly interconnected, the Internet has remained interconnected. At the same time, the market-driven nature of these arrangements has encouraged innovation and investment and has allowed the Internet to evolve in an efficient, pro-consumer manner.

The negotiated commercial agreements that underpin the Internet resulted from networks' strong incentives to interconnect efficiently. If allowed to develop through similar, industry-led commercial arrangements, IP interconnection for voice traffic will develop in economically efficient ways that provide opportunities for new applications and services that cannot run over existing narrowband connections. And the Internet experience demonstrates that negotiated agreements are the most effective way to ensure efficient interconnection arrangements and efficient network development.

Regulation of IP interconnection for voice traffic is not only unnecessary, but the threat that an IP interconnection obligation could spill over to the Internet backbone is real. The Commission and Congress have consistently promoted growth and innovation through an Internet unfettered by federal or state regulation. But a regulatory mandate for voice IP interconnection leads to a regulatory slippery slope that the Commission should avoid.

Moreover, a regulatory mandate for IP voice interconnection would only encourage ongoing international efforts to regulate the Internet – efforts that the United States has consistently opposed.[122] Most recently the United States opposed these efforts at the World

[122] *See* Chairman Julius Genachowski, FCC, Remarks as Prepared for Delivery, GSMA Mobile World Congress, Barcelona, at 8 (Feb. 27, 2012), http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0227/DOC-312667A1.pdf.

Conference on International Telecommunications in Dubai, when the United States refused to sign a proposed International Telecommunications Union treaty that would have permitted Internet regulation. With the potential of such consequences, the Commission should not take any steps that could encourage this activity internationally. The push to IP interconnection for voice is just such a step.

B. The Commission Should Not Impose New Burdens That Would Foreclose or Impede Copper Retirement

The Commission should reject the requests of some parties to interfere with the deployment of next-generation fiber networks by forcing providers to maintain redundant and costly copper networks that they no longer need to serve their customers. Critically, the Commission should not impose obligations for ILECs to maintain their copper networks in areas where they have deployed fiber. As the Commission has recognized, imposing such regulations would harm consumers and undermine Commission goals by impeding the deployment of fiber in the first instance. In the National Broadband Plan, for example, the Commission stated that:

> Incumbent deployment of fiber offers consumers much greater potential speeds and service offerings that are not generally possible over copper loops. In addition, fiber is generally less expensive to maintain than copper. As a result, requiring an incumbent to maintain two networks – one copper and one fiber – would be costly, possibly inefficient and reduce the incentive for incumbents to deploy fiber facilities.[123]

In reliance on the Commission's policies aimed at encouraging investment in next-generation broadband networks, Verizon has spent billions deploying fiber to millions of U.S.

[123] *National Broadband Plan* at 48-49. *See also Triennial Review Order* ¶¶ 219, 243 ("FTTH is essentially a broad replacement of the existing loop plant. The use of fiber optic cable requires the deployment of network equipment with different features and capabilities from comparable equipment used for copper cable. . . . Upgrading telecommunications loop plant is a central and critical component of ensuring that deployment of advanced telecommunications capability to all Americans is done on a reasonable and timely basis and, therefore, where directly implicated, our policies must encourage such modifications. . . . The replacement of copper loops with fiber will permit far greater and more flexible broadband capabilities.").

homes, making the U.S. one of the leading countries in terms of fiber-to-the-home. Verizon made this decision to invest at a time when the Commission's policies recognized that requiring providers to maintain duplicate networks that they no longer needed in order to serve their customers would increase the cost and eliminate the efficiencies of deploying advanced fiber networks, and therefore permitted providers the flexibility to retire any copper facilities that they no longer need.[124] Any policy shift that would impede or prevent copper retirement would be patently unfair and unlawful, and it would directly undermine the Commission's goal of encouraging investment in next-generation broadband networks.[125]

Preventing copper retirement also would have a chilling effect on future broadband investment. Such a policy would short-circuit fiber investment and competitively disadvantage one set of broadband providers over all others. Such a policy shift would be inconsistent with the Commission's goal of achieving more widespread deployment, including the goal of 100 million U.S. homes having access to download speeds of at least 100 Mbps by 2020. Most importantly, restricting copper retirement would hurt consumers. The added costs of maintaining a duplicate copper network, beyond when it makes business sense to do so, would ultimately be

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[124] *See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, ¶ 277 (2003).

[125] *See, e.g., National Broadband Plan* at 121 ("The private sector continues to invest in high-speed networks. . . . [T]hese efforts aim to accelerate the pace of innovation by placing next-generation technology in the hands of individuals and entrepreneurs, and allowing them to discover the best uses for it. Very fast networks may lead to unanticipated discoveries that will change how people connect, work, learn, play and contribute online."); Commissioner Ajit Pai, FCC, *Unlocking Investment and Innovation in the Digital Age: The Path to a 21st-Century FCC*, Remarks before Carnegie Mellon University, Pittsburgh, PA (July 18, 2012), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-315268A1.pdf ("We need a modern communications infrastructure. The copper-wire networks of the past must become the fiber networks of the future; the 2G voice networks of yesteryear must evolve into 4G data networks. We need modern infrastructure to compete in the global economy. And we need it to create American jobs.").

borne by consumers – both the diminishing base of customers still served by the copper as well as the customers served over other platforms but forced to subsidize the copper network. As providers have fewer incentives to invest in fiber networks, consumers will have less access to the innovative, new services that fiber enables.

Similarly, the Commission should be careful to monitor state level requirements that might impede fiber deployment or discourage copper retirement. State policies or regulations that could impede such transition necessarily conflict with the established national priorities supporting rapid deployment of next generation networks. Therefore, any such state regulations should be preempted in light of the significant federal interest in encouraging investment and innovation in IP and broadband networks and services.

C. The Commission Should Not Expand Unbundling Obligations or Impose Them on New Technologies

For the same reasons set forth above, the Commission also should reject any efforts to create unbundling obligations on fiber-based services or packet-switched loops. The Commission has repeatedly recognized that forbearance from unbundling obligations on fiber and packet-switched facilities "will provide an increased incentive for the BOCs to deploy broadband services and compete with cable providers, which will in turn increase competition and benefit consumers."[126] Conversely, imposing such requirements on such facilities would deter investment and competition, contrary to the Act's and the Commission's objectives.[127]

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[126] *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c); SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c); Qwest Communications International Inc. Petition for Forbearance Under 47 U.S.C. § 160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c),* Memorandum Opinion and Order, 19 FCC Rcd 21496, ¶ 31 (2004) ("*Section 271 Broadband Forbearance Order"*), *aff'd sub nom. EarthLink, Inc. v. FCC*, 462 F.3d 1 (D.C. Cir. 2006) ("*EarthLink v. FCC*").

[127] *See, e.g.*, Chairman Julius Genachowski, FCC, *Winning the Global Bandwidth Race:*

Recognizing the investment-deterring investment effects of unbundling on new broadband facilities, the Commission in a series of orders eliminated unbundling requirements for fiber loops and packetized hybrid loops.[128] These decisions not to require unbundling of the new networks have been a success, promoting billions in investment as described above. It would therefore be patently unfair and unlawful to change the rules of the game at this stage. It also would be unlawful under the 1996 Act, as no impairment could be found in this competitive marketplace.

D. The Commission Should Not Reverse Forbearance Previously Granted

As demonstrated above, the Commission should remove a number of legacy regulations that impede broadband deployment and the TDM-to-IP transition, and should not adopt any new regulations that would likewise have a deleterious effect on broadband investment and competition. As the industry moves toward new platforms and ever more competitive markets,

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Opportunities and Challenges for U.S. Broadband Economy, Remarks on Broadband at Vox Media Headquarters, Washington, D.C. (Sept. 25, 2012), http://www.fcc.gov/document/chairman-genachowski-remarks-broadband-vox-media ("We must drive massive private investment in both networks and applications – a virtuous circle where innovative applications drive user demand for bandwidth, which generates returns and incentives for network providers to invest in speed, capacity and ubiquity, which in turn enables further innovation, more demand, more network investment, and on we go."); Commissioner Robert M. McDowell, FCC, *The Siren Call of Please 'Regulate My Rival': A Recipe for Regulatory Failure*, Remarks before the Italian Parliament, Rome, Italy (June 28, 2012), http://www.fcc.gov/document/commr-mcdowells-speech-possible-itu-regulation-internet ("History teaches us that profitability and investment tend to *increase* once the weight of regulation is lifted from the collective chest of industry." Among the examples Commissioner McDowell cited was the enactment of deregulatory laws in 1976 and 1980, after which "the rail and trucking industries respectively began to grow and prosper. Consumers were immediate beneficiaries of deregulation with rates falling by 30 percent and transit time reduced by at least 20 percent by 1988. . . . [I]nvestment was stoked by deregulation – railroads invested U.S. $480 billion into network upgrades, or 40 percent of revenue, between 1980 and 2010.").

[128] *Triennial Review Order* ¶ 26; *Section 271 Broadband Forbearance Order* ¶ 31.

the Commission should also not reverse prior forbearance for enterprise broadband services. To the contrary, it should continue to explore further forbearance.

In the wake of prior forbearance decisions, there have been no claims that consumers have been harmed. To the contrary, competition is flourishing across the board for every type of communications service. Maintaining a market-driven approach for enterprise broadband services will benefit consumers and competition, thereby ensuring that market forces, rather than regulation, are driving consumer preferences and investment decisions.

Respectfully submitted,

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APPENDIX A:
Additional Legacy Regulations the Commission Should Eliminate

Prepaid Calling Card Reports. The Commission for six years has required carriers to exchange prepaid calling card data and file quarterly reporting and certifications to the Commission. *See* 47 C.F.R. § 64.5001. These "interim" requirements were adopted out of an abundance of caution "[t]o reduce further the incentive for carriers to report false or misleading information" amongst themselves.[1] With the precipitous decline of prepaid calling cards and erosion of the distinction between interstate and intrastate usage, this regulation imposes burdens without any corresponding benefit.

International Traffic and Circuit Status Reporting. Common carriers that provide international service are required to submit reports regarding their international traffic and international circuits. *See* 47 C.F.R. §§ 43.61, 43.82. The Commission has stated that these data, which are compiled in annual reports, are "useful for international planning, facility authorization, monitoring emerging developments in communications services, analyzing market structures, tracking the balance of payments in international communications services, and market analysis purposes."[2] Although some streamlining has occurred,[3] these reports and requirements remain unhelpful as industry markers given the substantial growth in competition on international routes and competitive alternatives to placing a traditional international call.

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[1] *Regulation of Prepaid Calling Card Services*, Declaratory Ruling and Report and Order, 21 FCC Rcd 7290, ¶ 38 (2006).

[2] FCC, *Manual for Filing Section 43.61 Data in Accordance with the FCC's Rules and Regulations*, at 1 (June 1995), http://transition.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Intl/filingmanual.pdf.

[3] *See Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, Second Report and Order, IB Docket No. 04-112, FCC 13-6 (rel. Jan. 15, 2013).

Part 32 Regulatory Accounting and Property Record Requirements and Part 42 Recordkeeping Requirements. The Commission's rules require ILECs to maintain "regulatory" books separate and apart from normal financial recordkeeping. *See* 47 U.S.C. § 220(a)(2), 47 C.F.R. §§ 32.1-32.9000. These accounting and recordkeeping requirements were adopted for various outdated regulatory purposes associated with traditional narrowband voice networks, such as jurisdictional separations, interstate access charges, and calculating universal support. *See, e.g., AT&T Cost Assignment Forbearance Order*[4] ¶ 3 (the Uniform System of Accounts ("USOA") was established "[t]o record company investment, expense, cost and revenue for rate-of-return rate regulation."). The USOA serves no federal regulatory purpose in the IP world, and the associated costs and regulatory lag of the USOA have real-world consequences that can delay efficiencies and innovation as carriers invest in next-generation networks and systems. This is particularly true in light of universal service and intercarrier compensation reform, which abolished potential Commission needs for Part 32 information for price cap carriers. *USF-ICC Transformation Order*[5] ¶ 151 (freezing all price cap carrier universal service support, and determining that such support will "no longer [be] calculated based on embedded costs."). Moreover, carriers are subject to many other governmental protections (such as Generally Accepted Accounting Principles ("GAAP") or a successor standardized accounting regime, SEC scrutiny, and the Sarbanes-Oxley Act and Foreign Corrupt Practices Act) that ensure the integrity of financial records through financial transparency or accountability.[6]

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[4] *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160 from Enforcement of Certain of the Commission's Cost Assignment Rules*, Memorandum Opinion and Order, 23 FCC Rcd 7302 (2008) ("*AT&T Cost Assignment Forbearance Order*").

[5] *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663 (2011) ("*USF-ICC Transformation Order*").

[6] *AT&T Cost Assignment Forbearance Order* ¶ 38.

The Commission also should eliminate the Part 32 property records rules, which require ILECs to generate unnecessary, detailed information for all plant accounts such as descriptions of property, location information, date of placement into service, and original cost data. *See* 47 C.F.R. § 32.2000. The Commission already concluded more than a decade ago that continuing property records rules and reports should be eliminated, yet these requirements persist.[7] Indeed, these requirements go well beyond the detail required by modern accounting procedures such as GAAP, and "impose substantial burdens on incumbent LECs."[8] These rules serve no valid regulatory purpose and distort competition by imposing costs on a small subset of competitors. Consumers are adequately protected by compliance with GAAP and other applicable safeguards and controls.

The Commission should also eliminate the Part 42 recordkeeping requirements, which require ILECs to maintain physical records or copies in obsolete formats. *See* 47 C.F.R. §§ 42.4, 42.5, 42.7, 42.10(a). These rules were largely adopted in 1986 when the state of electronic recordkeeping and Internet access was very different.

ONA/CEI Rules. The Commission has already eliminated the *Computer Inquiry* requirements for broadband Internet access and enterprise broadband services, and should now follow through with its proposal to eliminate the remaining open network architecture ("ONA") and comparably efficient interconnection ("CEI") rules for narrowband services as well.[9] These

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[7] *See 2000 Biennial Regulatory Review – Comprehensive Review of the Accounting Requirements and ARMIS Reporting Requirements for Incumbent Local Exchange Carriers: Phase 2*, Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 19911, 19987 ¶ 212 (2001) ("[W]e tentatively conclude that we should eliminate our detailed [continuing property records] rules in three years.").

[8] *Id.* (footnote omitted).

[9] *See Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) ("*Wireline*

rules date back decades, when ILEC networks were the "primary, if not sole, facilities-based platform available for the provision of 'information services' to consumers," and the CEI and ONA requirements were based on the "implicit, if not explicit, assumption that the incumbent LEC wireline platform would remain the only network platform available to enhanced service providers."[10] The narrowband obligations serve no purpose in the modern IP marketplace and distort competition. While other competitors are free to go from the drawing board to the marketing of a new service, Verizon and other ILECs are forced to take the additional time and expense to evaluate every new service to determine if, and how, it is subject to the *Computer Inquiry* requirements: what is "enhanced" versus "basic," and what functions must be offered separately under tariff.

Rules Governing Extension of Unsecured Credit for Interstate and Foreign Communications Services to Candidates for Federal Office. These rules, which require carriers to file periodic reports with the Commission detailing the terms of any unsecured credit that a carrier extends to a candidate of federal office, *see* 47 C.F.R. §§ 64.801, 64.804, are unnecessary in light of other federal and state laws that already regulate this behavior.

"Cash Working Capital Allowance" Requirement. This rule requires carriers to calculate their "cash working capital allowance," 47 C.F.R. § 65.820(d), which is an exercise that serves no regulatory purpose but is time consuming and resource-intensive.

Broadband Order"), *aff'd Time Warner Telecom v. FCC*, 507 F.3d 205 (3rd Cir. 2007). The Commission has suspended the reporting requirements associated with narrowband services. *Review of Wireline Competition Bureau Data Practices*, Order, 26 FCC Rcd 11280 (2011). *See also Commission 2010 Biennial Review of Telecommunications Regulations*, Public Notice, 26 FCC Rcd 16943, 16945 (2011) (recommending that "the Commission consider repealing or modifying the CEI/ONA rules in the CEI/ONA NPRM proceeding.").

[10] *Wireline Broadband Order* ¶¶ 3, 43.

Rules Governing Furnishing of Facilities to Foreign Governments for International Communications. This rule, which was last revised in 1963, was intended to ensure the U.S. government access to communications overseas. *See* 47 C.F.R. § 64.301.[11] Particularly now that the government has access to global satellite networks and other dedicated communications links that are outside the control of foreign governments, this requirement is unnecessary.

Rules Governing Recording of Telephone Conversations with Telephone Companies. This rule (47 C.F.R. § 64.501) was adopted more than 40 years ago long before a slew of federal and state privacy laws that render it unnecessary and obsolete.

Annual Revenue and Total Communications Plant Reporting Requirement. With the elimination of rate-of-return regulation, this rule, which requires large common carriers to file their year-end operating revenues and total communications plant, *see* 47 C.F.R. § 43.21(c), serves no regulatory purpose and is time-consuming and costly to carriers.

Reporting of Equal Employment Opportunities Complaints. The Commission should eliminate the Section 22.321(c) requirement that each public mobile service licensee submit an annual report to the Commission regarding all alleged violations of federal or state equal employment opportunity law filed against the licensee. 47 C.F.R. § 22.321(c).[12] Requiring substantial time and effort to compile, Form 395 seeks data about matters over which the Equal Employment Opportunity Commission, and federal and state courts, have jurisdiction. Moreover, since this requirement applies only to some – but not to all – Commission licensees, this requirement creates an unnecessary competitive parity issue and is inconsistent with the

[11] *See Federal Communications Commission Biennial Regulatory Review 2000 Staff Report* (Sept. 18, 2000), http://transition.fcc.gov/Reports/biennial2000report.pdf.

[12] In addition, all common carriers have certain additional equal employment opportunity reporting requirements. *See, e.g.*, 47 C.F.R. §§ 1.815, 101.311.

Act's goal of symmetrical regulation. *See* FCC Form 395, at 2; 47 C.F.R. §§ 23.55(d), 90.168(c).

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