Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	WC Docket No. 12- ___
AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition	)	

PETITION TO LAUNCH A PROCEEDING CONCERNING THE TDM-TO-IP TRANSITION

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AT&T respectfully asks the Commission to open a new proceeding to facilitate the "telephone" industry's continued transition from legacy transmission platforms and services to new services based fully on the Internet Protocol ("IP"). Specifically, AT&T asks the Commission to consider conducting, for select wire centers chosen by incumbent local exchange carriers ("ILECs") that elect to participate, trial runs of the transition to next-generation services, including the retirement of time-division multiplexed ("TDM") facilities and offerings and their replacement with IP-based alternatives. These trials will help the Commission understand the technological and policy dimensions of the TDM-to-IP transition and, in the process, identify the regulatory reforms needed to promote consumer interests and preserve private incentives to upgrade America's broadband infrastructure.

INTRODUCTION

With broad bipartisan support, the Commission has made expanding access to robust IP-based technologies the center of its regulatory agenda. Indeed, the Commission has authored a bold and ambitious *National Broadband Plan* that articulates in comprehensive fashion the challenges and opportunities presented by this country's broadband future. That plan

characterizes broadband deployment as "*the* great infrastructure challenge of the early 21st century."[1] At the same time, the *Plan* recognizes that "requiring an incumbent to maintain two networks . . . reduces the incentive for incumbents to deploy" next-generation facilities and "siphon[s] investments away from new networks and services." *National Broadband Plan* at 49, 59. It further recognizes that regulations that "require certain carriers to maintain POTS—a requirement that is not sustainable—[would] lead to investments in assets that could be stranded," and recommends that the Commission initiate a proceeding to "ensure that legacy regulations and services did not become a drag on the transition to a more modern and efficient use of resources." *Id.* at 59. The *Plan* concludes that the Commission should "start considering the necessary elements of this transition in parallel with efforts to accelerate broadband deployment and adoption" in order to "ensure that the transition does not dramatically disrupt communications or make it difficult to achieve certain public policy goals." *Id.* The Commission has taken critical steps to achieve the goals of the *National Broadband Plan* through its reform of universal service and intercarrier compensation in the *ICC/USF Transformation Order.*[2] It should now open a proceeding to take the next steps to "facilitate the transition" away from the legacy TDM-based network to an "all-IP network" that is capable of supporting broadband Internet access, higher-layer VoIP, and other advanced communications services for all Americans.[3]

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1 FCC, *Connecting America: The National Broadband Plan*, at 3 (2010) ("*National Broadband Plan*"), http://www.broadband.gov/.

2 *See generally* Report and Order and Further Notice of Proposed Rulemaking, *Connect America Fund et al.*, 26 FCC Rcd 17663 (2011) ("*USF/ICC Transformation Order*")

3 *Id.* at 17926 ¶ 783; *see also Notice of Proposed Rulemaking, Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, FCC No. 12-118, ¶ 2 (rel. Oct. 2, 2012) ("*Incentive Auction NPRM*") (noting desire to "accelerate the transition from circuit-switched to IP networks"); FCC Technology Advisory Council, *Status of Recommendations*, at 11, 15-16 (June 29, 2011) (proposing that the

Although the private sector has invested well over $1 trillion in broadband networks,[4] much remains to be done. As of 2010, roughly 14 million Americans, residing in rural and other high-cost areas where the broadband business case is tenuous at best, still lacked access to a broadband infrastructure capable of supporting today's applications.[5] The Commission took a historic first step toward narrowing this gap in the *ICC/USF Transformation Order.* By redirecting universal service support to broadband, the new regime will enable providers to deliver broadband Internet access and other IP-enabled services to millions of Americans in high-cost areas for which there is no business case for private investment. But even after these reforms, the private sector will continue to bear much of the financial burden for expanding access to IP-based technologies, to the tune of many billions of dollars.[6]

Carriers such as AT&T are stepping up to do their part. In fact, just today, AT&T announced a $6 billion investment plan to expand and upgrade its wireline network to bring robust IP broadband services to millions of additional locations in its legacy footprint. In addition, AT&T plans to invest $8 billion in its wireless network, *inter alia,* to deploy LTE mobile services to cover 300 million people by year-end 2014 and densify its wireless network. Based on the actions the FCC already has taken, AT&T makes this announcement with full confidence that the Commission will continue to implement the *National Broadband Plan's* vision of removing regulatory impediments to efficient, all-IP networks, including obligations

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Commission establish 2018 as a date certain for the "PSTN sunset"), http://transition.fcc.gov/oet/tac/ TACJune2011mtgfullpresentation.pdf.

4 Anna-Maria Kovacs, *U.S. Broadband Deployment: The Glass is 98% Full,* FierceTelecom (Aug. 27, 2012), *available at* http://www.fiercetelecom.com/story/us-broadband-deployment-glass-98-full/2012-08-27.

5 *National Broadband Plan* at 3.

6 *Id.* at 136 (estimating that it will require over $24 billion in additional funding to bring broadband to currently unserved areas, an amount far larger than the Commission's $4 billion universal service budget).

that could require carriers to maintain legacy facilities and services even after they have deployed new, IP-based alternatives.

Other providers are likely contemplating similar investments. But ubiquitous deployment of IP facilities and services is not inevitable. There will be many high-cost areas where the business case for broadband deployment remains highly challenging. And where that case is weakest, the regulatory environment will influence providers' future investment decisions. Consequently, if the Commission hopes to maximize private sector investment to achieve its goals of nationwide broadband, and preventing stranded investment in obsolete facilities and services, it should take further action now to "facilitate the transition" to an "all-IP network."[7] As the Commission understands, converged IP networks are more dynamic, versatile, resilient, and cost-efficient than legacy TDM networks.[8] The prospect of those efficiencies will improve the business case for broadband investment in high-cost areas, especially when providers can avoid the costs and inefficiencies of maintaining duplicative legacy networks once IP networks are enabled. Accordingly, the Commission should act to open a dialogue on these vitally important issues, with the express recognition that a twenty-first-century network will require a twenty-first-century regulatory regime.

The current industry landscape makes it even more critical that the Commission initiate the proceeding outlined here. As discussed below, ILECs have operated at a competitive disadvantage in areas where they are providing traditional TDM-based services, as shown by the

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[7] *USF/ICC Transformation Order*, 26 FCC Rcd at 17926 ¶ 783; *see also Incentive Auction NPRM* ¶ 2 (noting desire to "accelerate the transition from circuit-switched to IP networks"); FCC Technology Advisory Council, *supra* note 2, at 11, 15-16 (proposing that the Commission establish 2018 as a date certain for the "PSTN sunset").

[8] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17978 ¶ 892 (noting that "IP-based softswitches . . . are significantly less costly and more efficient than the TDM-based switches they replace").

many consumers that have switched to wireline and wireless alternatives. And because network costs in this industry decline far more slowly than the number of customers on the network, these competitive pressures have led to skyrocketing per-customer costs, even as per-customer revenues remain constant or decline. Making matters more complicated, the Commission's regulatory reforms, while necessary to achieve the *National Broadband Plan's* goals of getting broadband to all Americans, are transitioning the universal service support that many ILECs have used to fund their legacy networks to broadband enabled infrastructure. In other words, the support to maintain the legacy TDM architecture will not be available for that narrow band technology in the future.

The existing regulatory regime exacerbates these challenges by exposing ILECs to the threat of unique regulatory burdens even after they make the transition to IP-based networks. First, unlike their competitors, ILECs are subject to a variety of federal and state regulations that effectively require them to invest large sums to maintain redundant and costly TDM networks even after they have turned on replacement IP networks. As stated above, the *National Broadband Plan* observed that "requiring an incumbent to maintain two networks . . . reduces the incentive for incumbents to deploy" next-generation facilities, "siphon[s] investments away from new networks and services," and results in significant "stranded" investment. *National Broadband Plan* at 49, 59. At the margins, therefore, legacy regulation could hinder future ILEC investment in new or upgraded all-IP networks if it exposes ILECs to the risk that, after making such investments, they will still incur the substantial costs of maintaining duplicative TDM networks as well.

Second, other rules threaten to reduce ILEC incentives to invest in new or upgraded IP networks by subjecting ILECs, and them alone, to the risk of unique regulatory disadvantages in

their provision of *new* services over *IP* networks as well. As discussed below, these rules are irrational and counterproductive. It makes no sense to treat ILECs as dominant providers in an all-IP broadband marketplace that other providers currently lead.

The Commission has many tools in its toolkit to address these concerns and to manage the transition to an all-IP network infrastructure while protecting consumer interests and investment incentives. This petition identifies potential legal and regulatory impediments to the transition, and encourages the Commission to take a pragmatic and incremental approach to these challenges. In particular, the Commission should open a new proceeding to conduct, for a number of select wire centers, trial runs for a transition from legacy to next-generation services, including the retirement of TDM facilities and offerings. As part of that proceeding, the Commission would invite ILECs to propose individual wire centers for such an experiment and a detailed plan identifying the steps those carriers will take in each wire center to transition from TDM to IP-based facilities and services. Specifically, the plan would identify the modifications each carrier will make to its network to effect the transition, as well as the services it will offer in place of legacy wireline services. And it would supply a timeline for these changes. The Commission also would solicit broad public comment on how best to remove the legal and regulatory impediments to the trial itself and the ultimate transition to all-IP networks and services. The Commission would then implement these trial runs and, within a year of the proceeding's inception, assess the results while considering broader industry-wide reforms.

AT&T believes that this regulatory experiment will show that conventional public-utility-style regulation is no longer necessary or appropriate in the emerging all-IP ecosystem. But the Commission need not prejudge that issue to conclude that the experiment is well worth undertaking. To the extent that any regulation is necessary at all, the experiment will enable the

Commission to consider, from the ground up and on a competitively neutral basis, what, if any, legacy ILEC regulation remains appropriate after the IP transition.

The Commission should launch this proceeding promptly and conduct trial runs of the transitional regulatory framework as soon as possible. The Commission should resist any calls to delay this proceeding merely to accommodate business models favoring legacy technologies. As with the analog-to-digital and 2G-to-3G/4G transitions in the wireless context, a TDM-to-IP transition will require some industry participants to update their business plans or upgrade their own facilities to adjust to industry-wide technological advances.[9] But that is certainly no reason to delay a transition that will bring massive benefits to American consumers.

In short, the time is right for conducting the TDM-to-IP experiment proposed here. Like the Commission, both major political parties have placed broadband policy front and center in their national agendas. The Democratic platform promises to ensure "that America has a 21st century digital infrastructure," including "robust wired and wireless broadband capability."[10] And the Republican platform notes that lack of universal broadband coverage "hurts rural America, where farmers, ranchers, and small business manufacturers need connectivity to expand their customer base and operate in real time with the world's producers."[11] Getting broadband to all Americans is an agenda for which there will be bipartisan support. To begin

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[9] *See* Memorandum Opinion and Order, *Sunset of the Cellular Radiotelephone Service Analog Service Requirement and Related Matters*, 22 FCC Rcd 11243, 11257-64 ¶¶ 28-41 (2007) (refusing to extend the analog sunset date despite claims that some industry participants had insufficient time to upgrade to digital facilities and equipment).

[10] *2012 Democratic National Platform: Moving America Forward* 9 (2012), http://assets.dstatic.org/dnc-platform/2012-National-Platform.pdf.

[11] *2012 Republican Platform: We Believe in America* 24 (2012), http://www.gop.com/wp-content/uploads/2012/08/2012GOPPlatform.pdf.

transforming these aspirations into results, the Commission should act promptly on the incremental reform proposals set forth here.

AT&T'S INVESTMENT IN THE NETWORK OF THE FUTURE

AT&T is already playing a leading role in the transition from legacy, TDM-based services to the all-IP world of the future. Indeed, just today, AT&T announced a $14 billion strategic investment to deploy next-generation services. As explained in greater detail below, this initiative will extend the benefits of robust IP-based services to millions of Americans. AT&T anticipates that other carriers will also invest in next-generation services as each charts its own course away from the TDM-based, circuit-switched network. Especially at the margins, however, many of these future investments will likely be predicated on the expectation that the Commission will follow through on its own promise to "facilitate the transition" away from TDM-based services and permit carriers to seamlessly deploy next-generation services in their place.[12] As the *National Broadband Plan* explains, requiring carriers to maintain outdated services "siphon[s] investment[] away from *new* networks and services," and strands it in obsolete facilities.[13] Such requirements cannot be squared with the Commission's goal of "accelerat[ing] the transition from circuit-switched to IP networks, with voice ultimately one of many applications running over fixed and mobile broadband networks."[14] Below, we describe

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12 *USF/ICC Transformation Order*, 26 FCC Rcd at 17926 ¶ 783; *see also Incentive Auction NPRM* ¶ 2 (noting desire to "accelerate the transition from circuit-switched to IP networks"); FCC Technology Advisory Council, *supra* note 2, at 11, 15-16 (proposing that the Commission establish 2018 as a date certain for the "PSTN sunset").

13 *National Broadband Plan* at 59 (emphasis added).

14 *USF/ICC Transformation Order*, 26 FCC Rcd at 17670 ¶ 11; *see also* FCC Technology Advisory Council, Critical Legacy Transition Working Group, *Sun-setting the PSTN*, at 1 (Sept. 27, 2011) ("Our population is quickly migrating to voice services that are not part of the traditional PSTN, thus negating the assumption, that the current system of PSTN regulation and subsidy can continue to support our social and economic needs as a nation. Examples include:

the additional concrete steps the Commission should take to begin making that goal a reality. But first we outline the important investments that AT&T has announced it will make to hasten the transition to an all-IP future.

As its traditional DSL broadband technology approaches the end of its life cycle, AT&T is planning a $6 billion wireline investment that includes providing higher-speed, IP-based wireline broadband to 57 million customer locations (consumer and small business), representing more than 75 percent of AT&T's wireline footprint. This investment will include expanding U-Verse—AT&T's integrated voice, data, and IPTV platform—by 8.5 million additional customer locations, for a total potential U-verse market of nearly 33 million customer locations. This expansion is expected to be complete by year-end 2015. AT&T will also plan to offer U-verse IPDSLAM service (high-speed IP Internet access) to nearly 24 million customer locations in its wireline service area .

At the same time, AT&T plans to invest $8 billion in wireless network initiatives, including, but not limited to, expanding LTE deployment to reach 300 million people, by year-end 2014. As part of that initiative, AT&T will offer wireless communications alternatives to customers living in particularly high-cost areas. These alternatives will include AT&T's innovative Mobile Premises Services, which allows customers to make calls using ordinary wireline handsets connected to wireless base stations. Together with the wireline expansion and upgrades described above, AT&T's investments are projected to extend high-quality IP-based broadband services to 99 percent of all customer locations within AT&T's wireline service area.

In sum, AT&T's investment marks a key milestone in achieving the Commission's goal of bringing next-generation IP-based services to Americans who currently lack them. But future

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3G and 4G cellular; VoIP; over the top services such as Skype; and many others."), http://transition.fcc.gov/oet/tac/tacdocs/meeting92711/Sun-Setting_the__Paper_V03.docx.

investments are not inevitable. The regulatory environment influences providers' investment decisions, and it matters today more than ever. This petition proposes a series of concrete, pragmatic steps the Commission can take to encourage additional carrier investment in next-generation services.

DISCUSSION

I. ILECs Are Subject to Disproportionate Regulatory Burdens Even Though They Are No Longer Dominant in Any Relevant Market

ILECs remain subject to an array of monopoly-era regulatory obligations. As explained below in Part II, those obligations hinder carriers' ability to retire their legacy TDM networks and transition to all-IP networks. What is more, they apply only to ILECs, imposing a disparate regulatory burden that cannot be justified in today's competitive marketplace.

The recent past has seen dramatic changes in the communications industry. ILECs are at a competitive disadvantage to cable and wireless with their legacy, TDM-based offerings, as shown by the many customers that have switched to such alternatives. Meanwhile, carriers' network costs are declining far more slowly than their number of customers. Customers are abandoning obsolescent TDM services, but AT&T and other incumbent carriers still must be prepared to serve every household in their service territories on demand. Thus, the costs of maintaining those networks remain in place, and every loss of another customer increases the average cost per line of serving the customers that remain.[15] Compounding these challenges, many of the lines that ILECs have lost were the source of implicit subsidies that traditionally underwrote affordable service for the remaining customers. And at the same time, the

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[15] *See, e.g.*, Fourteenth Report & Order, *Federal-State Joint Board on Universal Service*, 16 FCC Rcd 11244, 11326 ¶ 207 (2001) ("[A]s an incumbent loses lines to a [competitor], the incumbent must recover its fixed costs from fewer lines, thus increasing its per-line costs.") (internal quotation marks omitted).

Commission has begun to eliminate the universal service support allocated to TDM-based services and is redirecting it to broadband services.[16]

The path forward is clear: ILECs must be able to retire their obsolete TDM-centric networks and invest in IP broadband facilities and services that will enable them to offer consumers more robust competitive alternatives. As detailed below, however, certain legacy rules effectively require ILECs to maintain their TDM networks except where they can obtain relief through lengthy, onerous, and piecemeal regulatory procedures. And every dollar spent on those networks is another dollar stranded in obsolete facilities and services, and which cannot be invested in deployment of next-generation services. Meanwhile, the ILECs' competitors face no such regulatory impediments to transitioning from legacy to IP technologies.

Indeed, one of the great ironies of twenty-first-century telecommunications policy is that the Commission persists in treating ILECs as though they were still monopolists even though, in today's convergent broadband environment, they have been steadily losing ground to cable and wireless operators. In the next section, we canvass the legacy requirements that place ILECs at a regulatory disadvantage and explain why they reduce ILEC incentives to upgrade their networks to robust, all-IP platforms. Then, in Section III, we propose an incremental solution for regulatory reform, under which the Commission would establish trial runs in select wire centers to assess the regulatory and other dimensions of the TDM-to-IP transition.

II. TWENTIETH CENTURY REGULATORY OBLIGATIONS NEED TO BE ELIMINATED TO ALLOW A TRANSITION TO TWENTY-FIRST CENTURY NETWORKS AND SERVICES

The *National Broadband Plan* correctly identifies one of the main obstacles to broadband investment by wireline telephone companies: continuing regulatory obligations that effectively require carriers to keep legacy TDM networks in place even after they have upgraded to all-IP

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16 *See USF/ICC Transformation Order*, 26 FCC Rcd at 17672-74 ¶¶ 17-25.

networks. As the *Plan* explains (at 49), "requiring an incumbent to maintain two networks" is "costly, possibly inefficient and reduces the incentive for incumbents to deploy" next-generation facilities. And regulations that "require certain carriers to maintain POTS—a requirement that is not sustainable . . . lead to investments in assets that could be stranded. These regulations can have a number of unintended consequences, including siphoning investments away from new networks and services." *Id.* at 59.

Maintaining a legacy TDM network—with its local, regional, and national infrastructure and back-office support systems—is an immensely expensive proposition. By one estimate, ILECs collectively have devoted approximately half of their wireline capital expenditures in recent years to the upkeep of their legacy networks.[17] In other words, an enormous percentage of ILEC capital resources are directed not towards bringing broadband to more customers, or upgrading to more efficient IP networks and services to offer a more robust competitive alternative to cable, but rather towards maintaining increasingly obsolete technologies that can no longer deliver what American consumers and policymakers demand. On the flipside, allowing carriers to retire legacy TDM-based services and networks would allow those carriers to free up billions of dollars to invest in next-generation IP services. The less regulatory uncertainty a provider faces about the application of legacy regulatory burdens to next-generation IP services, the greater the incentive it will have to build a platform to support those services. In this Section, we canvass these and related sources of investment-deterring regulatory uncertainty.

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[17] Robert C. Atkinson & Ivy E. Schultz, Columbia Inst. For Tele-Info., *Broadband in America: Where It Is and Where It Is Going*, at 29-30 (Nov. 11, 2009), http://www.broadband.gov/docs/Broadband_in_America.pdf.

Section 214 discontinuance requirements. Section 214 provides that "[n]o carrier shall discontinue, reduce, or impair service to a community, or part of a community, unless and until there shall first have been obtained from the Commission a certificate that neither the present nor future public convenience and necessity will be adversely affected thereby." 47 U.S.C. § 214(a). As an initial matter, AT&T believes that this provision is simply inapplicable where a carrier transitions from legacy TDM-based services to superior IP-based ones; in such circumstances, a provider does not "discontinue, reduce, or impair service to a community" within the meaning of section 214(a).[18] When a carrier upgrades to IP services, consumers receive all the essential functionalities as before, plus additional functionalities that can only benefit them, and substituting a superior new service for a lesser-included legacy service can hardly be said to "discontinue, reduce, or impair service." But the Commission has not yet confirmed that it agrees. And if it disagrees, section 214 would require a carrier to ask for Commission approval in each individual area where it wishes to upgrade to an all-IP platform and for each legacy interstate TDM service it seeks to replace with an IP-based substitute. The prospect of such piecemeal relief, rife with delay and regulatory uncertainty, is a deterrent to investment.

This set of concerns is currently pending before the Commission in a forbearance petition filed by USTelecom in February 2012, which seeks relief from section 214 and its implementing regulations to the extent, if any, that they require Commission approval before a provider may discontinue legacy interstate TDM offerings and replace them with IP-based alternatives.[19] As

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[18] *See* Reply Comments of AT&T, *Petition of USTelecom For Forbearance Under 47 U.S.C. § 160(c) From Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61, at 7-9 (filed Apr. 24, 2012) ("*AT&T USTelecom Petition Comments*").

[19] *See* Petition of USTelecom, *Petition of USTelecom For Forbearance Under 47 U.S.C. § 160(c) From Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61, at 59-63 (filed Feb. 16, 2012) ("*USTelecom Forbearance Petition*").

AT&T has explained in that proceeding, the Commission should grant the requested relief.[20] Here we review the issue mainly to address the anti-investment consequences of any uncertainty about the inapplicability of section 214 in this context.

As AT&T and others have explained, requiring section 214 approvals in these circumstances—where an ILEC wishes to upgrade from legacy TDM networks to next-generation IP networks—would inject delay and uncertainty into the process and could deter carriers from making that upgrade in the first place.[21] In practice, there is typically a delay, sometimes substantial, after a carrier submits a section 214 application and before the Commission issues the public notice that starts the 60-day clock for automatic grants of section 214 applications by dominant carriers. And the Commission can suspend the automatic grant of any such application at will. *See* 47 C.F.R. § 63.71(c). Thus, when ILECs consider investing in next-generation infrastructure in particular areas, they face uncertainty about when and if the Commission will authorize them to discontinue costly and redundant TDM networks they no longer wish to use in those same areas, and that uncertainty can undermine investment incentives.

Section 214 requirements are not only obstacles to a timely TDM-to-IP transition, but also unnecessary to fulfill the purposes of section 214. As AT&T has previously explained, there is simply no need for section 214 approval where a carrier seeks to *replace* legacy interstate TDM services with alternative services.[22] The historic purpose for section 214 approval was to ensure that the public was not left without adequate communications service. That historical purpose is doubly inapplicable where, as would be the case here, (1) consumers can choose

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20 *See AT&T USTelecom Petition Comments* at 6-19.

21 *See id.* at 17-18; *USTelecom Forbearance Petition* at 62; *see also* Comments of Verizon, *Petition of USTelecom For Forbearance Under 47 U.S.C. § 160(c) From Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61, at 8 (filed Apr. 9, 2012).

22 *AT&T USTelecom Petition Comments* at 6-10.

among an array of competitive alternatives to an ILEC's services, and (2) even the wireline incumbent is not exiting the market but is simply replacing a legacy service with an alternative service.

Notice-of-network-change rules. AT&T also supports USTelecom's related request for forbearance from the Commission's short-term notice-of-network-change rules to the extent they require the Commission to give duplicative notice to (previously notified) carriers affected by network changes before the clock for objections may start running.[23] The Commission's current rules require ILECs to provide notice to other carriers and the Commission before making certain "short-term" network changes. *See* 47 C.F.R. §§ 51.325(a), 51.333. Although interconnecting carriers may object to the *timing* of a short-term change, they cannot block it; instead, their only potential remedy is a delay (of no more than six months) to enable them to adapt their own networks. *Id.* § 51.333(c)(3)-(f). Under existing rules, the period for filing such timing objections is triggered not by notice to the affected carriers, but by the Commission's issuance of a Public Notice about the network change. *Id.* § 51.333(b), (c). This makes no sense. Instead, the clock for objections should begin to run immediately after a carrier receives formal notice from the ILEC. There is no need to wait for a redundant Public Notice from the Commission—a process that can (and often does) take months. Like section 214, such requirements are an unnecessary source of delay and investment-deterring uncertainty.

Federal and state service-obligation rules. State public utility commissions have traditionally imposed service obligations that require ILECs to provide on demand telecommunications services to all customers in a given geographic area, often at regulated rates, regardless of how many actually subscribe to those services. Legacy federal ETC rules create

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[23] *See id.* at 19-21; *USTelecom Forbearance Petition* at 56-59.

similar obligations. Importantly, these obligations come with no assurance that a carrier will receive any, much less sufficient, universal service support or other revenues to fulfill those service obligations.[24] And they, too, stifle investment in all-IP infrastructure.

In many states, legacy service obligations effectively preclude retirement of the TDM-based network, thereby requiring providers to maintain both legacy TDM and IP facilities. Many such obligations are defined by reference to a particular service or network architecture or include requirements that presume a carrier uses TDM technology.[25] This in effect requires a carrier to maintain a TDM network in the areas where such obligations apply, forcing ILECs to spend scarce capital dollars (which could be used to upgrade their networks to IP) to maintain an obsolete voice-centric network that customers are abandoning in droves. Again, maintaining both a TDM-based *and* an IP-based network is economically wasteful and exorbitantly expensive, and the threat of that outcome reduces carriers' financial incentives to invest in new, IP-based networks and services. These legacy service obligations therefore deter broadband investment.

The threat that regulators will impose even IP-oriented (but provider-specific) service requirements also can discourage ILEC investment in all-IP networks. For example, such requirements may be accompanied by price regulation. And it is well established that price regulation both undermines investment incentives (by limiting cost-recovery in potentially unforeseeable ways) and distorts competition with unregulated rivals.[26] The same would be true

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[24] *See generally* Comments of AT&T, *Connect America Fund et al.*, WC Docket Nos. 10-90 *et al.*, at 55-61 (filed Apr. 18, 2011) ("*AT&T April 18, 2011 Comments*").

[25] *See id.* at 56 (citing state laws requiring providers to offer local dial tone service, rotary pulse dialing operability, dual-tone multi-frequency signaling, single-party service, SS7 signaling, and single-party revertive calling and federal requirements regarding access to interexchange service and access to operator and directory services).

[26] *See* Report and Order and Further Notice of Proposed Rulemaking, *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers*, 22 FCC Rcd 15817, 15832-33 ¶¶ 39-40 (2007) (agreeing "with concerns raised in the record that rate regulation has

of other service-performance obligations—such as a requirement that ETCs provide standalone voice service—that have the effect of raising the cost of service and thus threaten the business case for additional investment in IP networks and services. What is more, these investment-deterring service obligations would provide little countervailing benefit to consumers, who can almost always choose from several different voice service providers.

For all of these reasons, AT&T has proposed that the Commission shift to a rational procurement model for ensuring universal service.[27] Under that model, compulsory service requirements would be abolished, and the sole purpose of designating a provider as an ETC would be to allow it, once it chooses to undertake voluntary service commitments in clearly defined areas, to receive the universal service funding necessary to provide supported services in those areas. Indeed, AT&T believes that this is the only lawful option for the future. As AT&T has detailed in other filings, the Commission cannot reasonably, or indeed legally, maintain its

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the potential to distort carriers' incentives and behavior with regard to pricing and investment in network buildout"); Report and Order and Notice of Proposed Rulemaking, *Appropriate Framework for Broadband Access to the Internet Over Wireless Facilities et al.*, 20 FCC Rcd 14853, 14878 ¶ 45 (2005) ("[W]e believe that we should regulate like services in a similar manner so that all potential investors in broadband network platforms, and not just a particular group of investors, are able to make market-based, rather than regulatory-driven, investment and deployment decisions."); Memorandum Opinion, *Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minn. Pub. Utils. Comm'n*, 19 FCC Rcd 22404, 22417 ¶ 21 (2004) ("*Vonage Order*") (information services should be allowed to "burgeon and flourish" free from economic regulation), *aff'd Minnesota Pub. Utils. Comm'n v. FCC*, 483 F.3d 570 (8th Cir. 2007); First Report and Order, *Price Cap Performance Review for Local Exchange Carriers*, 10 FCC Rcd 8961, 8989 ¶ 64 (1995) ("competition can be expected to carry out the purposes of the Communications Act more assuredly than regulation" ever could, and regulation is therefore appropriate "only where and to the extent that competition remain[s] absent in the marketplace").

[27] *See, e.g.*, Comments of AT&T, *Connect America Fund et al.*, WC Docket Nos. 10-90 *et al.*, at 3-9 (filed Feb. 9, 2012) ("*AT&T Feb. 9, 2012 Comments*"); Letter from Heather Zachary, Counsel to AT&T, to Marlene H. Dortch, FCC, WC Docket Nos. 10-90 *et al.* (filed Oct. 19, 2011) ("*AT&T Oct. 19, 2011 Letter*"); *AT&T April 18, 2011 Comments* at 54-82.

ETC rules in their current, often compulsory form, given the dramatic changes that it made to the universal service regime in the *USF/ICC Transformation Order.*[28]

Regulatory status of IP-enabled services. As AT&T previously has explained, IP-enabled services, including all VoIP services, are appropriately classified as interstate information services over which the Commission has exclusive jurisdiction.[29] But some CLECs and state regulators continue to attempt to assert state jurisdiction over such services, although none exists. Completing action in the IP-enabled services proceeding would put an end to such claims and drive additional investment by providers.

Remaining "equal access" obligations. These obligations, derived from the AT&T consent decree, were designed to facilitate a world in which "local" and "long-distance" services were strictly separated, and their continued application perpetuates an outdated business model in which a carrier arbitrarily and inefficiently segregates its service offerings into "local" and

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[28] *See AT&T Feb. 9, 2012 Comments* at 3-5; *see also AT&T Oct. 19, 2011 Letter* at 2-3. First, by definition, the purpose of the "eligible telecommunications carrier" designation is to identify those carriers that are, in fact, *eligible* to receive universal service funding. As 47 U.S.C. § 214(e)(1) directs, a "common carrier designated as an eligible telecommunications carrier . . . *shall be eligible to receive universal service support.*" But the new CAF regime will entitle just *one* provider to qualify for support in a given area in exchange for offering both legacy services *and* broadband. Under this new framework, many existing ETCs will not in fact be *eligible* to receive universal service funding and, in fact, will be categorically barred from receiving it. Given this, only the CAF recipient should be designated as an ETC in a particular area. Second, many ETCs will lose their existing universal service funding under the new regime. Some carriers depend heavily on that support to offset the high costs of providing service in funded areas, and the Commission cannot rationally compel these carriers to continue providing service at a loss after it withdraws that support. Indeed, such an unfunded mandate would violate section 254, which requires the Commission to design its universal service programs so that support is "sufficient" to enable providers to offer the services deemed "universal." 47 U.S.C. § 254(b)(5), (e), (f). Finally, the Commission could not lawfully force any ETC, whether funded today or not, to continue providing service in any high-cost area where it is not the CAF recipient. Forcing an unsupported competitor to provide service at a loss in competition with a CAF recipient would violate both the Takings Clause and section 254's mandate that universal service policies be "equitable and nondiscriminatory." *Id.* § 254(b)(4), (d), (f). Such a service obligation would also violate the Commission's well-established principle of "competitive neutrality."

[29] *See AT&T April 18, 2011 Comments* at 26-30.

"long-distance" components.[30] Consumers now overwhelmingly demand all-distance services, and carriers and other service providers should not be forced to segregate those services into separate inter- and intrastate components merely to preserve state regulatory authority. Moreover, providers of IP-based services may be unable, as a practical matter, to comply with such obligations, and continued uncertainty regarding their application deters IP investment.

Dialing parity. "Dialing parity" is a subset of the equal access obligations and is independently applicable to LECs through section 251(b) and the Commission's implementing regulations.[31] Continued application of the legacy dialing parity rules—which generally require a LEC to offer its local customers the opportunity to preselect a specific long-distance provider—is unnecessary and incompatible with a transition to all-IP networks.

Legacy copper loop requirements. In the "hybrid loop" context, where an ILEC retains copper in distribution facilities but upgrades to fiber-optic technology in feeder facilities, current Commission rules require ILECs either to maintain access to the otherwise unused copper infrastructure in the feeder or to provide a non-packetized transmission path between the central office and the customer's premises.[32] This in effect arguably requires an ILEC to maintain either two redundant sets of loop facilities (copper and fiber) or two redundant network technologies (TDM and IP). That requirement, too, can impair the business case for building more fiber in the feeder and upgrading to all-IP networks.

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30 *See* Comments of AT&T, *Connect America Fund et al.*, WC Docket Nos. 10-90 *et al.*, at 72-74 (filed Feb. 24, 2012).

31 *See* 47 U.S.C. § 251(b)(3); 47 C.F.R. § 51.209.

32 *See* Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers et al.*, 18 FCC Rcd 16978, 17153-54 ¶ 296 (2003).

The above discussion is not intended as a comprehensive list of the outdated regulations that create disincentives for broader investment in next-generation network architectures and result in an inefficient allocation of scarce investment dollars. Other residual obligations may have the same effects by requiring carriers to maintain TDM functionality in their networks, including requirements related to ONA/CEI, record-keeping, accounting, guidebooks, payphones, and data collection. And other legacy rules raise the specter of monopoly-style regulation even of replacement IP networks. The Commission could use the regulatory proceeding described below to identify such rules and, in the trial wire centers, could either forbear from their application or waive them as appropriate.

III. THE COMMISSION SHOULD OPEN A RULEMAKING PROCEEDING TO CONDUCT TRIAL RUNS FOR REGULATORY REFORM IN DISCRETE WIRE CENTERS

AT&T recognizes that the Commission may wish to proceed incrementally before eliminating, on a nationwide basis, all of the counterproductive regulatory burdens discussed above. Accordingly, AT&T proposes that the Commission open a proceeding to consider implementing a number of geographically limited trial runs that will help guide the Commission's nationwide efforts to facilitate the IP transition.

In its notice launching the proposed new proceeding, the Commission should elicit prompt proposals from ILECs for specific wire centers to use as part of this experiment, as well as detailed plans for conducting trials in those wire centers. Those plans should identify both the network modifications that will be necessary to transition from the legacy TDM network to IP technologies and the services carriers will offer in place of legacy wireline services. The plans should also specify the steps participating carriers will take to notify customers (including both retail and wholesale customers) of these changes and to transition them to replacement services. And they should include a timeline laying out when each of these steps will occur. The specific

steps necessary to effect the transition, and the services that will be offered in place of legacy wireline services, may vary depending on geographic and other factors (e.g., terrain, population density, and the plant in the ground).

In its notice, the Commission should also seek public comment on how best to implement specific regulatory reforms within those wire centers on a trial basis. The following summarizes how AT&T currently envisions the geographically limited reforms that would be part of these trials. Other carriers would of course be able to share their own views as part of the new proceeding.

First, the Commission would eliminate, within the trial wire centers, outdated "telephone company" regulations that may require carriers to maintain legacy TDM-based networks and services even after replacement services are in place. For example, the Commission would make clear that providers need not obtain section 214 approval from the Commission or similar approval from state authorities in order to replace TDM services with alternatives.

Second, to the extent VoIP replaces legacy circuit-switched telephony in the trial wire centers, the Commission would preclude carriers (including carrier customers) from demanding service or interconnection in TDM format in those wire centers. Hence, as VoIP replaces legacy circuit-switched telephony, no carrier would be required to provide TDM-based dedicated transmission services, which would be replaced by Ethernet or other IP services. Carriers would also have no right to demand TDM-based interconnection or services, including TDM-based tandem transit services or SS7-based signaling.

Third, in the trial wire centers, the Commission would also implement reforms to facilitate the migration of end-user customers from legacy to next-generation services. Although the telecommunications ecosystem is moving quickly to an all-IP environment, many millions of

consumers remain on TDM-based networks. And as the transition continues apace in the trial wire centers, the Commission would implement reforms designed to prevent a few customers from delaying that transition, as happened in the transition from analog to digital television and in the sunset of analog cellular services. In particular, the Commission would permit service providers to notify customers that such service providers will no longer provide them legacy services once the legacy TDM network is retired. Under this approach, customers would of course be given sufficient opportunity to establish alternative arrangements. Alternatively, if the Commission is concerned that non-migrating customers will be cut off (even temporarily) from service, it could allow those customers' existing service providers to switch them to an alternative service at the time of the technological transition.

As AT&T envisions these trial runs, the Commission would also keep IP services free of legacy regulation so that the trial may proceed without the distorting and investment-chilling effects of such regulations. As noted, AT&T believes that this regulatory experiment will show that conventional public-utility-style regulation is no longer necessary or appropriate in the emerging all-IP ecosystem. But, at a minimum, the experiment will enable the Commission to consider, from the ground up and on a competitively neutral basis, what, if any, legacy regulation remains appropriate after the IP transition. Such an approach would be far more conducive to new investment than simply carrying over regulations that were devised for different technology in a different industry.

Finally, the Commission has ample legal authority under its waiver and forbearance powers to conduct these geographically limited trial runs. Congress explicitly authorized the Commission to forbear from applying any legal provision "to a telecommunications carrier ... in any or some of its ... geographic markets." 47 U.S.C. § 160(a). Additionally, the Commission

may waive its rules in the areas identified, because "special circumstances warrant a deviation from the general rule, and such deviation will serve the public interest."[33] The Commission also has clear authority to preempt any state regulatory obligations that would interfere with these experiments or subvert the most important objective on the Commission's agenda: a smooth and rapid transition to the all-IP broadband environment of tomorrow.[34]

CONCLUSION

The legacy telephone network has provided high-quality voice service to American consumers for more than a hundred years. But that legacy infrastructure will inevitably give way to more robust and efficient IP alternatives; the only questions are how to implement that transition and how soon consumers will reap its benefits. The Commission should answer those questions through the proceeding described in this petition. That proceeding will enable the Commission to facilitate an industry-wide dialogue on the appropriate regulatory framework for the transition and to test that framework in geographically limited trial runs. The lessons learned from those trials will prove invaluable as the Commission fashions nationwide reforms intended to promote consumer interests and preserve private incentives to invest in IP technologies.

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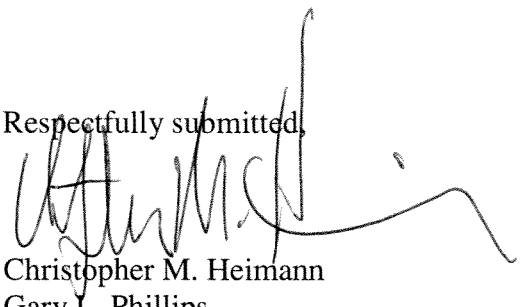
[33] Report and Order and Memorandum Opinion and Order, *Section 272(f)(1) Sunset of the BOC Separate Affiliate and Related Requirements et al.*, 22 FCC Rcd 16440, 16483-84 ¶ 88 n.256 (2007); *see generally* 47 C.F.R. § 1.3.

[34] *See generally Vonage Order,* 20 FCC Rcd 14853; *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 376 n.4 (1986).

Respectfully submitted,



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