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IP Transition and Consumer Protection

AT&T's Petition is the Wrong Path Forward

Introduction

AARP is keenly interested in the technology transition from TDM- to IP-based networks. Telecommunications technologies play a growing role in the lives of older Americans, i.e., those in 50+ households. The impact of broadband technologies is only beginning to be felt. The pervasive availability of high quality and affordable broadband connections—both fixed and mobile—can enable new applications and services, including new methods of delivering healthcare and support for independent living. Video conferencing and advanced telepresence technology have the potential to empower older Americans to successfully age in place.

AT&T's petition and comments attempt to convince this Commission that unless sweeping regulatory relief is granted, including the elimination of state involvement in the oversight of issues associated with TDM retirement, investment will be stifled. However, the record in this proceeding is clear, the technology transformation is underway, and regulatory relief and pilot programs are not needed for carriers to invest in next generation technologies. As noted by NECA et al.:

It is also unclear at this point why permission or regulatory relief from the Commission would be needed to conduct a "technical" trial; many carriers are already converting their networks to IP technology via the installment of softswitches and fiber. Moreover, nothing in the current regulatory framework precludes carriers from interconnecting on an IP-enabled basis. Indeed, RLECs currently have tariff provisions in place to permit such interconnection in short order.¹

Ensuring the maximum benefits of the technology transition requires a balanced approach to any review of regulatory oversight. What is clear from the record is that AT&T's proposal would result in the demolition of the foundation upon which this Commission and state regulatory agencies pursue relevant statutory objectives, including the promotion of competition, universal service, and the protection of

¹ NECA and OPATSCO Comments, p. 11.

consumers. This foundation has resulted in the delivery of widespread benefits to consumers and businesses in the U.S., as was intended by the Communications Act. As a result, AARP does not support AT&T's pilot program approach.

With regard to the path forward, AARP agrees with the State Members of the Federal-State Joint Board that the relief that is sought by the AT&T Petition "will have direct effects on the preservation and advancement of universal service."² The preservation and advancement of universal service has statutory roots as a joint enterprise between the states and the federal government. Thus, AARP supports the State Members' proposal for a referral to the Federal-State Joint Board on Universal Service to address IP-transition issues.

Continuing Importance of Wireline Voice Services

Older Americans choose wireline voice services to a greater extent than other age demographics. According to 2012 data from the National Health Interview Survey, about 89.5% of individuals aged 65 and above live in a household with wireline voice service, and about 74.2% in the 45-64 age group purchase wireline service.³

However, older Americans *prefer to buy both wireless mobility and wireline services*. According to the most recent microdata from the NHIS, there has been a steady increase in wireless adoption across older households, with the 50-64 age range closing in on 90% adoption by 2011, and the next wave of 50+ households, those in the 40-49 age group, showing over 90% wireless mobility adoption.⁴

² State Member Comments, p. 1.

³ Stephen J. Blumberg, Ph.D., and Julian V. Luke, "Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-June 2012," Division of Health Interview Statistics, National Center for Health Statistics, December 19, 2012, Table 2, p. 8. <http://www.cdc.gov/nchs/nhis/releases.htm#wireless>

⁴ Data in Figure 1 has been compiled from the microdata associated with the NHIS, for the years 2007-2011; microdata for 2012 have not yet been released. 2007-2011 microdata available at: http://www.cdc.gov/nchs/nhis/quest_data_related_1997_forward.htm

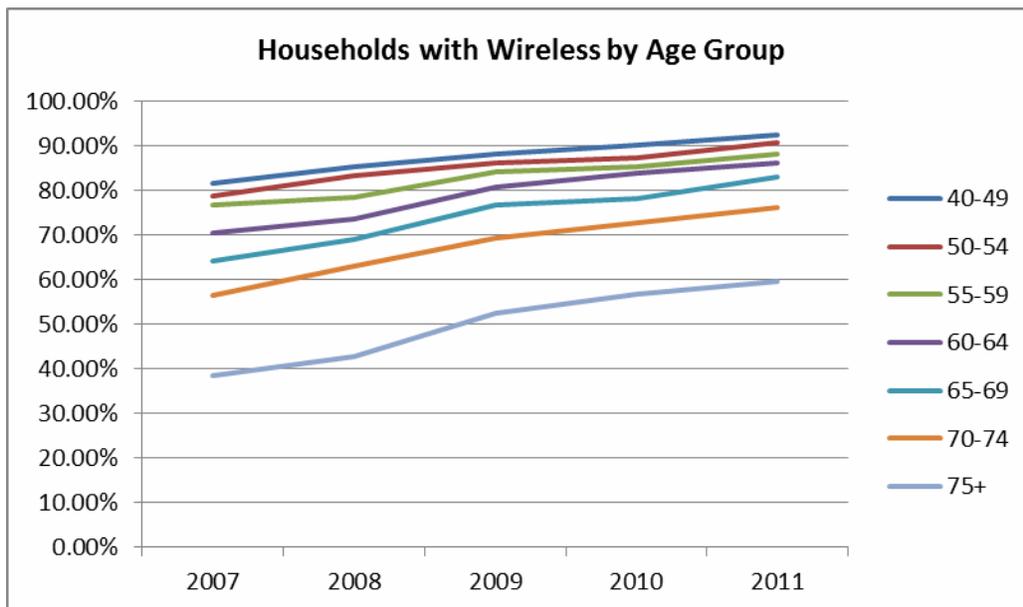


Figure 1: Wireless Phone in Household, by Householder Age

When considering policy issues associated with future networks, choices made by consumers should be carefully considered. While older households have embraced wireless mobility services, the 2012 data on wireline subscription mentioned earlier lead to the reasonable conclusion that older Americans have also expressed their preference for reliable, affordable, and high quality wireline voice services. Thus, the impact of the technology transformation on wireline voice services is also of critical concern for older households and for AARP.

Technology Transition Issues Need Regulatory Oversight

Statutory Objectives are Technology Neutral

The objectives of ubiquitous and reasonably priced communications networks apply regardless of the technology platform utilized to deliver the services. It is appropriate that the objectives of the statute direct the Commission as it oversees this latest technology transformation.

Consumer Protection Objectives Must Continue During and After the Technology Transition

AARP is deeply concerned regarding the impact on consumers of a potential forced migration from legacy TDM-based voice technologies to alternatives that do not deliver comparable quality, reliability, and affordability—especially forced migration to wireless-only alternatives. The technology transformation should not result in consumer harms and the Commission should not be a party to a forced migration of consumers to inferior and more costly alternatives. The impact of the technology transformation on

vulnerable populations—the elderly and disabled, low-income households, and those residing in disadvantaged areas—will require additional attention.

The retirement of TDM technology has far-reaching implications. The TDM-based PSTN has been incorporated into the operations of businesses and lives of individuals in ways that are not always obvious. As noted by the FCC’s Technology Advisory Council:

Network providers have huge investments in existing PSTN infrastructure including copper wire, switches, pole space, and software. Although new information services are designed for IP networks, many homes and businesses still use devices that depend on specific characteristics of the PSTN (e.g., auto-dialers, alarm systems, ATMs, PoS terminals). These services and devices will have to be replaced and the accompanying construction and inspection "codes" revised.⁵

Home security systems, personal and medical monitoring, and telehealth applications may be configured based on the ubiquitous TDM network technology. As noted in the Comments, air traffic control systems also rely on legacy technology.⁶ While these technologies will eventually need to transition to an IP-based infrastructure, great care must be exercised to ensure that vital services that rely on the TDM-based PSTN are not adversely affected through the transition. Certainly, the localized nature of many issues requires the ongoing involvement of state and local authorities.

As noted by NATOA, et al. in Reply, key public safety concerns will not be eliminated due to the technology transition:

As we have seen from the recent derecho storm in June 2012 and Superstorm Sandy, wireless services can and do fail. Regardless of the technology used, 911 services must remain available to all residential and commercial consumers. As such, we reject industry calls to preempt state regulations, such as carrier of last resort (“COLR”) service requirements, based solely on expressions that consumers have multiple service options from multiple providers. The right to depend on reliable telephone service in times of emergencies must not be abandoned along with these copper networks.⁷

Migration from TDM Services Should be Driven by Consumer Demand, Not Carrier Convenience

The potential for a forced migration to wireless-only service arrangements raises significant concerns regarding the affordability and reliability of service.⁸ This

⁵ FCC Encyclopedia, “Technological Advisory Council.” <http://www.fcc.gov/encyclopedia/technological-advisory-council>

⁶ Harris Corporation Comments, p. 2.

⁷ NATOA, et al. Comments, pp. 2-3.

⁸ AARP Comments, pp. 11-12.

Commission, and the states, must be able to carefully consider the impact of an ILEC's potential to abandon wireline voice and broadband facilities in the portion of its service area where it no longer wants to invest in wireline. Wireless voice services are not guaranteed to work anywhere, especially indoors.⁹ Wireless broadband alternatives are typically metered and more costly to consumers than wireline broadband, thus limiting the usefulness of wireless broadband for many applications, such as streaming video. Furthermore, large numbers of consumers, where they have the choice, prefer to buy both wireless and wireline voice services. Eliminating this choice would have a substantial negative impact.

State Preemption is not a Reasonable Approach

If AT&T's proposal were adopted, the ability of the states to oversee service quality, service outages, anti-consumer practices such as cramming, and other market failures would be undermined. AARP is not opposed to a reasoned review of regulation, however, this Commission should work with states during that review, and should not preempt the states as AT&T suggests.

As noted by State Members, "the States have the ultimate responsibility to ensure the preservation and existence of universal service for their citizens at reasonable and affordable rates, and to exercise appropriate regulatory oversight over the COLR obligations of such ILEC telecommunications utilities."¹⁰

NARUC also correctly points to the need for a factual basis for preemption: "AT&T provides no empirical data to back up the 'facts' alleged to justify preemption. Specifically, the carrier alleges, in a series of conclusory statements, that State 'legacy service obligations' reduce 'carriers' financial incentives to invest in new, IP-based networks and services' and 'therefore deter broadband investment.' But AT&T offers zero empirical evidence to back up this claim. The only evidence that is available indicates that incumbent local exchange carriers and the private sector have invested well over \$1.2 trillion in broadband networks and IP technology. This hardly suggests that the current regime has deterred investment in, and transition to IP technologies."¹¹

Interconnection Issues are Technology Neutral and Require Ongoing Oversight

AT&T argues that its request for unilateral authority to determine IP-based interconnection arrangements is consistent with Section 251 of the 1996 Telecommunications Act because Section 251 does not apply to IP-based information services.¹²

In the *Connect America Fund Order* the Commission noted:

⁹ AARP Comments, pp. 17-18.

¹⁰ State Members Comments, p. 4.

¹¹ NARUC Comments, p. 7.

¹² AT&T Comments, pp. 11-12.

[W]e observe that section 251 of the Act is one of the key provisions specifying interconnection requirements, and that its interconnection requirements are technology neutral—they do not vary based on whether one or both of the interconnecting providers is using TDM, IP, or another technology in their underlying networks.¹³

In that same order the Commission also stated that good faith negotiation requirements are technology neutral:

The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise.¹⁴

The Commission should reject AT&T's petition as it is based on a foundation that subverts the statutory provisions contained in Section 251 of the 1996 Act.

Regulation is not Impeding Broadband Investment

Record shows evidence of strong ILEC investment:

“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. 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.”¹⁵

“AT&T's Project Lightspeed was a multibillion-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. 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....

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.” ...

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.” ...

¹³ *Connect America Fund Order*, ¶1342.

¹⁴ *Connect America Fund Order*, ¶1011.

¹⁵ Verizon and Verizon Wireless Comments, pp. 5-6, emphasis added.

Windstream expected to incur capital 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.” ...

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.”¹⁶

With Regard to Fiber Deployment, AT&T was not willing to Pay the Price on Wall Street

AT&T couches its request for relief on alleged regulatory impediments to broadband investment.¹⁷ A better explanation of investment deterrents facing AT&T can be understood by considering Verizon’s experience with fiber investment. When Verizon pursued its fiber deployment plan, Wall Street punished Verizon shareholders:

Verizon spokesman Edward McFadden said the decision to build the FiOS network was not popular on Wall Street. “We got hammered,” he said, “and our shareholders were punished for this.”¹⁸

AT&T’s copper-based U-Verse deployment avoided the short-term downside that would have “punished” its shareholders. Focus on short-term financial results, not regulatory barriers, provides a better explanation for AT&T’s failure to pursue fiber. Consumers should not now be punished to accommodate AT&T’s business plan.

The Two “Parallel Networks” Argument is a Red Herring

The ongoing technology transformation has not resulted in carriers building two separate networks. The architecture of the legacy TDM-based PSTN has been incrementally updated to accommodate new technologies. As noted by Nebraska Rural Independent Companies, “AT&T’s claim that it is necessary for carriers to run two parallel networks operating at the same time during the conversion from TDM-to-IP evolves as further network investment and deployments take place *is inconsistent with the operational experience of NRIC’s member companies.*”¹⁹ AT&T’s technology migration approach, which utilizes legacy copper facilities to deliver its U-Verse service,

¹⁶ Verizon and Verizon Wireless Comments, pp. 8-9, emphasis added.

¹⁷ See, AT&T Petition, pp. 4; AT&T Comments, pp. 7-8.

¹⁸ “Hoping for FiOS, some cities now feel abandoned by Verizon,” *Philadelphia Inquirer*, April 29, 2012. http://articles.philly.com/2012-04-29/business/31475013_1_fios-verizon-wireless-wireless-spectrum . See also “Net Neutrality - Beware the Law of Unintended Consequences,” Bernstein Research, April 7, 2006. <http://www.nextgenweb.org/wp-content/uploads/2007/08/net-neutrality-beware-the-law-of-unintended-consequences.pdf>

¹⁹ NRIC Comments, p. 16, emphasis added.

also clearly illustrates the true nature of the technology transformation—carriers continue to operate one network as they upgrade to next generation technologies.

Conclusion

This is not the first technology transition to affect the PSTN, and it certainly will not be the last. However, the core objectives of the Act are technology neutral and this Commission must continue to work to make available, “so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nation-wide and world-wide wire and radio communication with adequate facilities at reasonable charges.” These objectives apply with equal force whether services are rendered through Class 5 TDM switches or routers or softswitches. These objectives apply equally to services delivered over copper, fiber, or using wireless transmission.

AARP believes that the Commission should reject AT&T’s petition. While the alternative approach to IP-transition issues advocated in the NTCA petition has merit and is certainly superior to AT&T’s proposal, AARP supports the approach advocated by State Members. Furthermore, to ensure that the regulatory foundation continues to deliver benefits, the Commission should address the now-overdue issue of the regulatory classification of broadband services. The Commission now stands at a crossroads with regard to its ability to ensure that its authority applies to essential broadband telecommunications services. AT&T’s petition represents the wrong path forward as it substitutes AT&T and other ILECs’ business plans for the statutory objectives, thus threatening consumer protection, universal service, and competitive outcomes. The statutory objectives can only be achieved in the post-TDM world by keeping a sharp focus on consumer protection issues and through a partnership with the states.