

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

In the Matter of

Technology Transitions	)	GN Docket No. 13-5
	)	
Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers	)	RM-11358
	)	
Special Access for Price Cap Local Exchange Carriers	)	WC Docket No. 05-25
	)	
AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services	)	RM-10593
	)	

**COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

**I. INTRODUCTION AND SUMMARY**

The Telecommunications Industry Association (“TIA”)<sup>1</sup> hereby submits comments to the Federal Communications Commission (“Commission”) in the above-captioned proceedings.<sup>2</sup>

---

<sup>1</sup> TIA represents the global information and communications technology (ICT) industry through standards development, advocacy, tradeshow, business opportunities, market intelligence, and world-wide environmental regulatory analysis. Its hundreds of member companies manufacture or supply the products and services used to provide broadband and broadband-enabled applications. Since 1924, TIA has enhanced the business environment for broadband, mobile wireless, information technology, networks, cable, satellite, and unified communications. TIA’s standards committees create consensus-based voluntary standards for numerous facets of the ICT industry.

The Commission has shown foresight in previously recognizing the inevitable transition of legacy transmission platforms and technologies to Internet Protocols (“IP”) networks. TIA concurs with Chairman Wheeler’s assessment that this transition from time-division multiplexing (“TDM”) networks to IP networks can be accomplished while preserving the Commission’s “enduring values” of the “Network Compact.”<sup>3</sup> These values can be further advanced by embracing the benefits and opportunities produced by the transition.

Each year TIA’s Market Review & Forecast publication analyzes a wide range of data, weighing economic, technology and policy drivers, with specific data on industry segments, including wireless data, wireline data, conferencing services, wired internet access, network equipment and more. This data confirms the speed with which the network transition is taking place and underscores the benefits associated with enabling the network transition, as reflected by rapid customer adoption.<sup>4</sup>

- In the voice services market, circuit-switched spending fell 6.7 percent in 2013. (TIA MR&F 3-3)

---

<sup>2</sup> See, Report and Order on Reconsideration and Further Notice of Proposed Rulemaking, Technology Transitions Policies and Rules Governing Retirement Of Copper Loops by Incumbent Local Exchange Carriers Special Access for Price Cap Local Exchange Carriers AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services; GN Docket No. 13-5 RM-11358 WC Docket No. 05-25 RM-10593 (Rel. August 7, 2015) (“PN” or “NPRM”)

<sup>3</sup> See, The preservation of the “four enduring values that have always informed ...see Statement from FCC Chairman Tom Wheeler on Technology Transition Experiments, found at: [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2014/db0221/DOC-325728A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0221/DOC-325728A1.pdf) (Released on Feb. 21, 2014) (defining the Network Compact’s enduring values as “universal service, public safety, competition and consumer protection)

<sup>4</sup> This data, as well as all other projections and statistics provided in this document which are not cited to otherwise, are derived from the TIA’s 2014-2017 ICT Market Review & Forecast (TIA MR&F), a proprietary annual publication from TIA containing distilled data and analysis on information and communications technology industry trends and market forecasts through the end of 2017. This document is available for purchase at <http://www.tiaonline.org/resources/market-forecast/>.

- Circuit switched spending will decrease from \$111.6 billion in 2013 to \$95.4 billion in 2017, a 3.8 percent decline compounded annually. VoIP spending will rise from \$20.6 billion to \$30.9 billion, a 10.7 percent compound annual increase.
- In 2013, there were 79 percent as many residential VoIP subscribers as circuit-switched subscribers, triple the 28 percent share in 2009.
- By 2017, the VoIP residential subscriber base will be nearly 25 percent larger than the circuit-switched subscriber base. (TIA MR&F 3-0)

These findings are mirrored by other data:

- By 2015, the market share for ILEC switched landline will have only 16 percent of US households, as contrasted with a 93 percent market share in 2003.<sup>5</sup>

Consumers benefit from the Commission's encouraging the timely investment in the country's telecommunications network and with the transition to more advanced technologies. When considering possible inconveniences associated with the transitions, the transition's very significant benefits should also be recognized. In short, TIA supports efforts to stimulate investment and innovation in next-generation broadband deployment and adoption.

As TIA previously noted, "obsolescence continues to be a major driver of the transition. Legacy TDM platforms are typically already approaching a 40 year plus lifespan. Essential expertise and equipment spares are becoming scarce. Should an original vendor no longer be in business and if no alternative support or spares are available, then carriers can be forced to migrate from their legacy silo model to a new voice platform."<sup>6</sup>

---

<sup>5</sup> See, USTelecom Research brief , November 25, 2014, available at <http://www.ustelecom.org/sites/default/files/documents/111813-voice-comp-research-brief.pdf> (last accessed 10/26/2015)

<sup>6</sup> See, TIA Comment at 5, Technology Transitions Policy Task Force Seeks Comment on Potential Trials, Docket No. 13-5 (filed July 8, 2013) "TIA Comment".

The Commission's National Broadband Plan has previously highlighted the problems associated with the extended continuation of legacy networks. The Commission noted this not only risks stranding that ongoing investment, but that it "siphon[s] investments away from new networks and services."<sup>7</sup> The Plan highlighted the costs of "requiring an incumbent to maintain two networks," and recommended the Commission "...ensure that legacy regulations and services did not become a drag on the transition to a more modern and efficient use of resources."<sup>8</sup> Policies inhibiting investment undercut the achievement of the nation's clearly articulated broadband policy objectives.

## **II. IP Transition Is Dynamic Process Driven By Technology**

### **A. Consideration of Alternative Services**

TIA strongly concurs with the Commission's tentative conclusion that it "must evaluate the availability of alternative services from sources other than the carrier seeking section 214 discontinuance authority. It is important to note that the Commission must evaluate the adequacy of those alternative services using the same criteria as those applied to any replacement service offered by the discontinuing carrier."<sup>9</sup> This approach grounds the Commission's evaluation of IP transition proposals with an evaluation of the actual, real world impact on telecommunications consumers.

---

<sup>7</sup> See, Federal Communications Commission, *Connecting America: The National Broadband Plan*, at 49, 59 (2010).

<sup>8</sup> *Id.* at 59.

<sup>9</sup> see PN at 206

TIA notes that the IP technology transition is best understood as part of a multi-step process in which last mile copper retirement may be but one, final stage. As last mile copper can accommodate IP traffic, many households have already been transitioned to IP services, such as VoIP. In fact, some legacy network attributes may already have been lost. This is more than offset by the enhanced functionality of broadband technology.

The Commission has expressed a strong policy preference for not just deploying broadband to consumers, but also doing so at ever increasing speeds. On January 29th, the FCC issued its 2015 Broadband Progress Report finding that broadband deployment is failing to keep pace with today's advanced, high-quality voice, data, graphics and video offerings. Concluding that the 4Mbps down/1Mbps up standard set as recently as 2010 has now become inadequate, the Commission raised the benchmark to 25Mbps down/3Mbps up.<sup>10</sup> Achieving a desired more than 600percent increase in download speeds will require the telecommunications industry to maintain a very robust investment pace. Consistent with this clearly expressed policy preference, the Commission should take care to avoid inadvertently delaying the broadband infrastructure investment.

Just as the Commission considers the availability of competitive services, it is also appropriate to weigh the consumer benefits from improved broadband that may result from upgrading final mile connections.

---

<sup>10</sup> See, Fourth International Broadband Data Report (2015); FCC FINDS U.S. BROADBAND DEPLOYMENT NOT KEEPING PACE: Updates Broadband Speed Benchmark to 25Mbps/3 Mbps to Reflect Consumer Demand, Advances in Technology, Adopted January 29, 2015 (Report Rel. February 4, 2015)

## B. Service Metrics

As a standard for determining the appropriateness of continuing legacy regulatory requirements, TIA has previously advocated an approach that focuses on the “substance” of a service over the regulatory “form.” Regulatory “substance” includes requirements actually impacting an end user’s expectation regarding service availability and performance. Regulatory “form” may involve metrics of a service’s technical attributes associated with a specific technology.<sup>11</sup> The approach also reflects the Commission’s long-standing policy of technology neutrality, of identifying key service requirements in a manner that does not dictate the use of a specific technology.

However, some commenters seem to regard both the IP transition and section 214 discontinuance authority as an opportunity to expand the Commission’s jurisdiction. For example, Public Knowledge would engage in a regulatory sleight of hand in using the IP transition to inveigle the Commission to adopt new, unrelated service metrics. Public Knowledge suggests that “[w]holesale contracts for large scale users may provide a starting point in determining useful quality standards.” This would introduce an analysis completely unrelated to the essential question of service comparability of legacy TDM services with its potential replacement.<sup>12</sup>

Equipment that has exceeded its anticipated life cycle will inevitably become less reliable with age. The necessary service comparison must be whether alternative technologies can exceed the performance of these deteriorating legacy investments. Public Knowledge’s proposed approach seems better suited for a monopoly

---

<sup>11</sup> See, TIA Comment at 6-7.

<sup>12</sup> See, Letter of Phillip Berenbroick, Of Public Knowledge to Chairman Tom Wheeler, Technology Transitions, GN Docket No. 13-5, (filed July 27, 2015)

telecommunication market in which public authorities authorize tariffed offerings. But worst, it suggests that consumers would be better off if carriers spent more on patch-work solutions extending the life of decades old legacy technology, rather than upgrading their networks.

While TIA recognizes the importance of cybersecurity for IP networks, this issue is best left to other existing initiatives in which the issue is already being considered. The Commission's Section 214 discontinuance authority for TDM services offers very limited utility to address the dynamic nature of this issue.

IP transition timing should be left to the market-based economic and technology considerations of carriers. Investment decisions are appropriately left to individual companies weighing competing considerations and limited resources. The specific decisions as to when and where to transition to all-IP and away from legacy copper infrastructure is fundamentally an investment decision of resource allocation. Carriers contending with higher maintenance, electricity, and cooling costs associated with legacy equipment already have strong incentives to make appropriate technology transitions as quickly as feasible. At the most granular level, carriers routinely weigh the availability of spare parts repurposed from other equipment with the advantages cost of investment in new facilities.

### **C. Service for Individuals with Disabilities**

On the issue of alternative service options to facilitate the transition from TTY text

services, TIA encourages the Commission to limit discussion of this matter to one docket. Similar to the other commenters the Commission cites,<sup>13</sup> we believe that discussion about IP-based alternatives for TTY should be reserved for the ongoing proceeding the Commission has already initiated on this topic in the Public Notice seeking comment on AT&T's petitions.<sup>14</sup> While we recognize that the need to ensure people with disabilities continue to have access to services during the IP transition, TIA recommends the Commission consolidate the discussion on sunseting TTY and possible alternatives to docket 15-178, to ensure there is a robust public record that all stakeholders are engaged in.

However, if the Commission chooses to continue discussion of real time text (RTT) in this docket, TIA refers the Commission to our comments filed in response to the Real Time Text (RTT) PN for more information on the use of real-time text as a replacement for TTY.<sup>15</sup> We believe it is important to note that although RTT technology could serve as one alternative solution, the technology is still nascent and thus, industry is still developing various methods for replacing TTY technology. There will be challenges in incorporating RTT technology since it is still in the early stages of development and has not been used before; factors that we ask the Commission to take into consideration. Finally, we encourage the Commission to ensure any rulemaking effort has as its foundation the key principles of flexibility, technology neutrality, and feasibility, which will

---

<sup>13</sup> NPRM at ¶223.

<sup>14</sup> See Request for Comment on Petition for Rulemaking to Update the Commission's Rules for Access to Support the Transition from TTY to Real-Time Text Technology, and Petition for Waiver of Rules Requiring Support of TTY Technology, Public Notice, GN Docket No. 15-178, DA 15-858 (rel. July 24, 2015) ("RTT PN").

<sup>15</sup> See Comments of Telecommunications Industry Association, GN Docket No. 15-178 (filed Aug. 24, 2015).



enable manufacturers to have the needed regulatory space to address new concerns in a manner that is neither economically nor technically burdensome.

### **III. Reducing Future Section 214 Scrutiny**

As has been previously noted, many critical infrastructure systems rely on the PSTN for services and applications, and these essential functions need an appropriate transition path so that key safety services can continue to function and are not stranded.

Alternative services from sources other than a switched landline PSTN carrier are already performing functionally equivalent services. For example, the overwhelming majority emergency 911 are occurring on mobile phones. IP based messaging services are providing improved communications functionality to Americans with disabilities. The Commission can consider these services' availability without expecting that a precise equivalent be furnished by the carriers seeking to retire copper.

Whatever the Section 214 "copper retirement" requirements the Commission may apply in the near time, these rules are unlikely to be required permanently and can be "sunset" in the future. For example, at the point when 95percent of households in a market no longer rely switched landline communications over copper, the Commission can reasonably anticipate that sufficient alternatives will exist permitting a reduction in the necessary scrutiny carrier transitions might otherwise require. As previously noted, as recently as 2003 when ILEC switched landline market share of households was 93 percent. As this market share has already dropped to below 20percent, the Commission may anticipate that the transition to replacements services will be occurring in a relatively

seamlessly manner.<sup>16</sup> Maintaining the same level of regulatory oversight once nearly of the nation has already transitioned would be counter-productive to the Commission's goal of encouraging the introduction of advanced telecommunications services.

#### **IV. CONCLUSION**

TIA concurs with the Commission's goal promoting a tech transition, while preserving services. However we caution the Commission to be more sensitive to the inevitable "trade-offs" existing between spending required by regulation to preserve legacy technology, and investing in next-generation networks. Such spending to maintain copper infrastructure comes at the expense of new investment.

Respectfully submitted,

**TELECOMMUNICATIONS INDUSTRY  
ASSOCIATION**

Mark Uncapher  
Director, Regulatory and Government Affairs

TELECOMMUNICATIONS INDUSTRY  
ASSOCIATION  
1320 N. Courthouse Road, Suite 200  
Arlington, VA 22201  
(703) 907-7700

October 26, 2015

---

<sup>16</sup> See, USTelecom Research brief , November 25, 2014, available at <http://www.ustelecom.org/sites/default/files/documents/111813-voice-comp-research-brief.pdf> (last accessed 10/26/2015)