

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
	)	
Ensuring Customer Premises Equipment Backup Power for Continuity of Communications	)	PS Docket No. 14-174
	)	
Technology Transitions	)	GN Docket No. 13-5
	)	
Policies and Rules Governing Retirement of Copper Loops by Incumbent Local Exchange Carriers	)	RM-11358
	)	
AT&T Corporation Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services	)	RM-10593
	)	

**Reply Comments of ITIF**

March 9, 2014

## Contents

Introduction and Summary .....	2
The Encouragement of Ongoing Technology Transitions Should Guide Policy .....	3
Consumer Transition is Already Successful .....	3
Copper Retirement should be Encouraged, Not Slowed.....	4
Extensive Backup Power Requirements are Unnecessary.....	4
Conclusion.....	5

## Introduction and Summary

The Information Technology and Innovation Foundation (ITIF) is a non-partisan research and educational institute—a think tank—whose mission is to formulate and promote public policies to advance technological innovation and productivity internationally, in Washington, and in the states. Recognizing the vital role of technology in ensuring prosperity, ITIF focuses on innovation, productivity, and digital economy issues. ITIF welcomes this opportunity to comment on these important aspects of the IP transition.

While we encourage the Commission in overseeing the key principles of “competition, consumer protection, universal service, and public safety and national security,”<sup>1</sup> we note a few concerns with the notice of proposed rulemaking (NPRM).<sup>2</sup> First, as a general matter, it is important that the Commission not lose sight of the fact that, on the whole, these transitions are an overwhelming improvement for consumers, for the cost-effective deployment of next-generation communications, and the nation overall. The move to all IP networks is indeed a *transition*, a transition enabled by technological advancement and guided by market forces and consumer demand. This is not an area of collective action problems, or a one-off change in standards, but a gradual process that is already well underway. The role of the Commission should not be to construct an up-front regulatory regime to force new networks mimic all the features of the old, but to oversee and, more importantly, encourage, this transition, while ensuring none of the fundamental values are lost.

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<sup>1</sup> *Technology Transitions Order*, 29 FCC Rcd at 1435-36, paras. 2-4.

<sup>2</sup> Notice of Proposed Rulemaking and Declaratory Ruling, *Ensuring Customer Premises Equipment Backup Power for Continuity of Communications et al.*, Notice No 14-185 (rel. Nov. 25, 2014) (“NPRM”).

That said, we are particularly concerned that some of the proposed changes to the copper retirement notice process as well as the proposed CPE backup power rules may have the effect of discouraging adoption and deployment of advanced telecommunications. These concerns are already well established in the record—ITIF appreciates the opportunity to highlight and contribute our own thoughts.

## The Encouragement of Ongoing Technology Transitions Should Guide Policy

The Commission should recognize that in addition to overseeing the values of competition, consumer protection, universal service, and public safety, encouraging and easing the innovation that is the transition to all IP networks should be a key goal of this and similar proceedings. The goal should not be to account for any and all deviations from the legacy PSTN. Absolutely, steps should be taken ahead of time to ensure critical infrastructure that relies on the PSTN has a clear transition path, for example. But generally speaking, the Commission should recognize the numerous reasons for preferring next generation networks over legacy copper and err against policies that would slow retirement.

### Consumer Transition is Already Successful

It is well established that consumers have voluntarily moved off of the copper PSTN network in droves. As noted in the NPRM, over a third of all wireline telephone connections are over interconnected VoIP as of late 2013.<sup>3</sup> The NPRM also rightly notes the migration to wireless services, stating that “recent estimates suggest that 41 percent of American households rely exclusively on wireless services.”<sup>4</sup> As Verizon summarizes, “almost three-quarters of residential customers nationwide—approximately 88 million households—no longer receive telephone service over the traditional copper facilities that were the backbone of the PSTN, and this number grows with every passing day.”<sup>5</sup>

These striking numbers show that the IP transition is already well underway as a result of market forces and consumer demand. This is not a problem that requires management by the government, but a natural evolution due to advances in technology. The Commission should avoid attempting to recreate every feature of the copper network, but assist in the retirement of old networks and continued deployment of the next generation of technology. To allow the changes in technology that affect consumers, such as the lack of a powered phone line, to slow the retirement of copper and in turn slow the deployment of advanced technology, would be allowing a small, thin tail to wag a very big dog.

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<sup>3</sup> NPRM at para. 9, *citing* Local Telephone Competition Report at 3.

<sup>4</sup> NPRM at para. 9 *citing* Drew Desilver, *CDC: Two of Every Five U.S. Households Have Only Wireless Phones* (July 8, 2014).

<sup>5</sup> Verizon Comments at 4.

A remarkable shift away from the PSTN network has already occurred without changes to the regulatory framework. Furthermore, these changes can be celebrated as a definitive sign of healthy competition for voice services. Policies that potentially discourage the replacement of copper with next-generation technologies in the name of, for example, “competition” should be viewed skeptically when almost three-quarters of residential customers have moved off the copper PSTN. More importantly, competition should not be the goal; it is a means not an end. The primary goal should be continued innovation and productivity growth among network providers.

### **Copper Retirement should be Encouraged, Not Slowed**

The benefits of fiber networks are well recognized. Compared to copper networks, fiber is more reliable, more environmentally friendly, and easier and less expensive to maintain. Of course, fiber also offers significant improvement in capacity. IP networks generally, while not always compatible with existing service equipment, have the potential to offer a great deal more flexibility in available services. It should be uncontroversial to overwhelmingly prefer fiber, or hybrid fiber-coaxial for that matter, over copper.

The NPRM rightly quotes the *National Broadband Plan* in recognizing that requiring incumbent LECs to maintain two networks—one copper and one fiber—“would be costly, possibly inefficient and reduce the incentive for incumbents to deploy fiber facilities.”<sup>6</sup> ITIF would go a step further: requiring ILECs to maintain two networks would be *obviously* inefficient, raising overall production costs and reducing capital for new investment. The tradeoff between copper retirement and fiber deployment is real.

For this reason, the Commission should maintain the notice-based process for copper retirement, and avoid requiring any kind of affirmative approval process or creating any additional barriers to copper retirement.

### **Extensive Backup Power Requirements are Unnecessary**

Again, the extensive move off of copper networks that customers have already made should caution against extensive regulations. Customers are already well accustomed to technologies that are not line-powered. VoIP, fiber, and wireless, not to mention wireless CPE attached to the PSTN, are all embraced by users despite their need for independent power. With this context, it is clear that consumers are well accustomed to self-provisioning CPE backup power. There are a variety of options for doing so, and it is not clear that the Commission can find the one solution that will be right for all.

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<sup>6</sup> NPRM at 10 citing *National Broadband Plan* at 48.

The record documents a wide variety of backup power options already available to consumers. One obvious choice for many users is the mobile phone, which provides its own backup power in the form of a battery (including back up battery systems, like companies like Mophie provide) and can make essential phone calls during an emergency or power failure. NCTA's filing describes standalone "Uninterruptible Power Supply" devices that can power multiple devices during an outage.<sup>7</sup> Similarly, a small number of users may choose a generator for such circumstances. There are also several existing options for battery backup for fiber systems. Verizon describes its rollout of a "new approach that uses standard D-Cell batteries" which customers could easily stockpile themselves. Similarly, many cable VoIP providers facilitate availability of batteries or battery-supported equipment.<sup>8</sup>

For all of these reasons, it appears unnecessary to make all VoIP providers responsible for powering customer CPE during the first eight hours of a power outage.<sup>9</sup> There will, of course, be edge cases, where critical equipment depended on the PSTN and continual power. But these situations should be approached in a decentralized fashion, with end users finding the solution that best suits their needs. Some VoIP users may well be unconcerned about backup batteries, relying on their mobile phones or alternative backup sources. Mandating costly one-size-fits-all CPE batteries makes little sense.

Here, clear notice to consumers is likely to do much of the work the Commission is looking for. Providers should give notice to consumers about the effect of copper retirement, the need for an independent power source, as well as the availability of backup batteries and how long they will last.

## Conclusion

ITIF supports the Commission's goal of promoting the ongoing tech transitions while protecting the four identified fundamental values of competition, consumer protection, universal service, and public safety. But even subtle distinctions at the regulatory level can lead to big differences at the margin. Many decisions tied to the tech transition involve trade-offs between investment in, for example, maintaining legacy networks and deploying new facilities. We should be humble in our desire to design a new regulatory framework from scratch, especially when consumers are already migrating to new services. There will of course be circumstances that require special care, but general policies of public notice and flexible, decentralized solutions should be preferred over specific mandates.

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<sup>7</sup> NCTA Comments at 7.

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

<sup>9</sup> NPRM at para. 35.