

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Technology Transitions)	GN Docket No. 13-5
)	
AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition)	GN Docket No. 12-353
)	
Connect America Fund)	WC Docket No. 10-90
)	

To: The Commission

COMMENTS OF T-MOBILE USA, INC.

T-Mobile USA, Inc. (“T-Mobile”)¹ responds to the Commission’s request for comment on AT&T’s Proposal for Wire Center Trials.² As discussed in more detail below, T-Mobile urges the Commission to maximize the consumer and competitive benefits of AT&T’s proposed trials by avoiding unnecessary and inefficient traffic conversions between time division multiplex (“TDM”) and Internet protocol (“IP”). The Commission also should move quickly beyond these constrained trials to address important transition issues that will affect consumers and the competitive ecosystem, including IP-to-IP interconnection.

I. INTRODUCTION AND SUMMARY

As T-Mobile and most other providers consistently have observed in these proceedings, the practical aspects of the technology transitions already are being “tried” today as providers deploy IP-based wireline and wireless facilities, and consumers select those services in

¹ T-Mobile USA, Inc. is a wholly-owned subsidiary of T-Mobile US, Inc., a publicly-traded company.

² AT&T’s Proposal for Wire Center Trials, GN Docket Nos. 13-5, 12-353 (filed Feb. 27, 2014) (“Proposal”). *Commission Seeks Comment on AT&T’s Proposal for Service-Based Technology Transitions Experiments*, GN Docket Nos. 12-353, 13-5, DA 14-285 (rel. Feb. 28, 2014) (“Public Notice”).

increasing numbers.³ This widespread deployment and adoption presents broad-based opportunities to test how to maintain key values, including competition, public safety, ubiquitous and affordable access, and consumer protection.⁴ It is noteworthy that AT&T's trial proposal does not attempt to explain how its proposed trial materially differs from actions that AT&T and other carriers already have taken and are continuing to take as they transition their networks from legacy, copper-provisioned time division multiplex ("TDM") services to IP-based and wireless services,⁵ and consumers express a growing preference in the marketplace for these services. Indeed, the primary difference appears to be that over time all consumers in the selected exchanges will be forced to migrate to all IP-based services – although that consumer migration process will take a number of years. The industry and consumers cannot wait for completion of that lengthy process before the critical issues affecting competition in an all-IP environment are resolved. As a result, the Commission should not allow these limited trials to distract it from the truly critical issues ahead with regard to the technology transitions – principally how provider interconnection and competition issues will be handled in the new environment.

³ See Comments of T-Mobile, WC Docket No. 12-353 (filed Jan. 28, 2013) ("T-Mobile Initial Trials Comments") (FCC has acknowledged that technical process for IP interconnection is mature; regulatory backstop necessary to ensure reasonable terms and conditions for IP interconnection and efficient IP POIs); Reply Comment of T-Mobile, WC Docket No. 12-353 (filed Feb. 26, 2013) ("T-Mobile Initial Trials Reply") (same); Comments of T-Mobile, GN Docket No. 13-5 (filed July 9, 2013) ("T-Mobile Technology Transitions Comments"); Reply Comments of T-Mobile, GN Docket No. 13-5 (filed Aug. 7, 2013) (large ILECs question the technical feasibility of IP interconnection, demonstrating the need for a trial).

⁴ See *Technology Transitions, et al.*, Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5 (rel. Jan. 31, 2014) at ¶ 1.

⁵ See, e.g., *Comments Invited on Application of Verizon New Jersey Inc. and Verizon New York Inc. to Discontinue Domestic Telecommunications Services*, WC Docket No. 13-150, Data Request Letter, 28 FCC Rcd 12260 (WCB 2013).

The Commission can take a useful step forward in this regard by ensuring that AT&T's proposed trial does not involve unnecessary, inefficient, and consumer-impacting TDM-IP conversions or needlessly inefficient points of interconnection ("POIs"). The trial will not test important enduring values of consumer protection and competition if other carriers that already operate IP networks are required to exchange traffic with AT&T's trials in TDM format and at inefficient POIs.

II. THE COMMISSION SHOULD MOVE ON RAPIDLY FROM THESE TRIALS TO RESOLVE IMPORTANT TRANSITION-RELATED ISSUES SUCH AS IP-TO-IP INTERCONNECTION

Although the Commission can take certain steps to increase the benefits of trials such as AT&T's Proposal, ultimately these trials are of limited utility because they will not undertake a thorough examination of crucial elements of an all-IP world, such as IP-to-IP interconnection. As T-Mobile has argued, a truly useful trial would test the viability of phasing out TDM interconnection and inefficient legacy POIs based on antiquated ILEC wireline network architecture.⁶ Moreover, the data from these trials will be of limited utility given that AT&T certainly will moderate its behavior during the trial, given its desire to remove regulatory constraints post transition.⁷

The Commission should not allow the pendency of these trials to delay the Commission's resolution of central legal and policy issues. Foremost among these is the obligation of carriers to exchange traffic with one another on efficient and reasonable terms. Only through the direct exchange of traffic in IP format, and the use of fewer, regional POIs, consistent with T-Mobile's prior comments in these proceedings, will carriers – and ultimately consumers – be able to reap

⁶ See, e.g., T-Mobile Initial Trials Comments at 17-19.

⁷ See, e.g., T-Mobile Initial Trials Reply at 11.

the benefits of the efficiency of IP networks, and experience shows that recourse to a regulatory arbiter is needed for these to be achieved.

Thus, T-Mobile urges the Commission not to allow trials such as AT&T's to distract or delay it from moving ahead in this docket on resolving the legal and policy issues for the technology transitions.

III. THE CONSUMER AND COMPETITIVE BENEFITS OF AT&T'S TRIALS WILL BE MAXIMIZED BY AVOIDING UNNECESSARY IP-TDM CONVERSIONS.

The Commission's purpose in soliciting trial proposals is to "collect data that will permit service providers and their customers ... to make data-driven decisions about these technology transitions."⁸ An important benefit of the IP transition is that "[m]odernizing communications networks can dramatically reduce network costs, allowing providers to serve customers with increased efficiencies that can lead to improved and innovative product offerings and lower prices."⁹

As AT&T itself notes, calls to and from its trial-participating customers in the test wire centers (Carbon Hill, Alabama, and Kings Point, Florida) will originate and terminate in IP format.¹⁰ The Commission can maximize the extent to which AT&T's trials will show how to "advance new network technologies" *and* "protect and enhance the core statutory values of ... competition and consumer protection"¹¹ by mandating that AT&T not perform unnecessary translations between TDM and IP format, nor require interconnecting carriers to do so, and exchange IP traffic with other carriers at efficient IP POIs.

⁸ Public Notice at ¶ 1.

⁹ Public Notice at ¶ 2.

¹⁰ Proposal at 48.

¹¹ Public Notice at ¶ 37.

As T-Mobile previously has pointed out in these dockets, two of the principal benefits of a prompt transition to IP networks are (1) carriers' ability to exchange traffic in a single format (IP), eliminating the costs of protocol conversion, and (2) freeing carriers from the inefficient architecture of the PSTN by allowing carriers to use a comparatively small number of regional POIs.¹²

To protect enduring network values, the Commission must avoid unnecessary protocol conversions and promote the use of efficient regional POIs. First, these steps are necessary to the enduring value of consumer protection. Converting IP calls to TDM often results in the loss of certain features or functionalities of IP-based services, which would negatively impact consumers during the trial. Also, the efficiencies of rational IP networks substantially reduce carriers' costs, allowing consumers to benefit from lower prices and better, more innovative services. Second, these steps are necessary to protect the enduring value of competition. Guarding against unnecessary TDM-IP conversions and preventing the ILEC from dictating use of unnecessary legacy PSTN POIs reduces incumbent carriers' abilities to impose unnecessary costs and burdens on their competitors. There is no reason to exclude these benefits from the trial.

The Proposal is vague on this point, but it suggests that traffic to and from trial-participating IP-based customers will be handled in the way that AT&T handles traffic for its existing U-verse and wireless customers – which, in T-Mobile's experience typically involves unnecessary conversions to TDM format and inefficient routing.¹³

¹² See, e.g., T-Mobile Technology Transitions Comments.

¹³ Proposal at 48 (“For example, a call from a CLEC end user customer to an AT&T consumer VoIP customer would be routed through AT&T's access tandem.”).

Instead, as AT&T transitions customers in the trial wire centers to IP-based services, it should stand ready to exchange those customers' traffic with other carriers in IP format. As the Commission notes, "AT&T suggests that once it converts a wire center from legacy circuit-switched telephony to VoIP as part of an experiment, the Commission should preclude other carriers from demanding 'service or interconnection in TDM format in those wire centers.'"¹⁴ By the same token, the Commission should preclude AT&T from requiring other carriers to take interconnection in those same wire centers in TDM format.

AT&T suggests that its proposal is consistent with the Commission's directive to maintain existing interconnection arrangements and intercarrier compensation flows. But both can be maintained while also demonstrating the IP benefits of avoiding unnecessary protocol conversions and eliminating inefficient POIs. That AT&T must continue to *permit* other carriers to interconnect with it using existing PSTN arrangements, in TDM format, does not mean that it should *require* other carriers to do so. And AT&T and other IP-based carriers can exchange traffic in IP format at efficient POIs without changing existing intercarrier compensation flows.

To test the central network values of competition and consumer protection, the Commission should not allow AT&T to require other carriers to exchange traffic with it in TDM format when that traffic originates from or terminates to trial-participating customers using IP-based technology, or to exchange such traffic at inefficient locations based on legacy PSTN architecture.

CONCLUSION

T-Mobile urges the Commission not to let trials such as AT&T's proposal distract it from policy-making work that is crucial to the technology transitions, particularly tackling the

¹⁴ Public Notice at ¶ 61.

exchange of IP traffic on reasonable terms and at efficient POIs. As discussed herein, AT&T's trial can begin to test out some of these issues; if it does not do so, it will not demonstrate how crucial network values of consumer protection and competition can be protected during the technology transitions.

Respectfully submitted,

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March 31, 2014