

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of:

AT&T Petition to Launch a Proceeding
Concerning the TDM-to-IP Transition;

Petition of the National
Telecommunications Cooperative
Association For a Rulemaking to
Promote and Sustain the ongoing TDM-
to-IP Evolution

GN Docket No. 12-353

**COMMENTS OF THE CALIFORNIA PUBLIC UTILITIES COMMISSION
AND THE PEOPLE OF THE STATE OF CALIFORNIA**

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The California Public Utilities Commission and the People of the State of California (California or CPUC) submit these comments in response to two petitions filed with the Federal Communications Commission (FCC or Commission). Both of the petitions propose that the FCC open a rulemaking to address myriad issues raised by the transition from a TDM-based telecommunications network to a network based on Internet Protocol (IP) technology. The TDM-to-IP transition is already underway as a practical matter, and, as is so often the case, regulation of the telecommunications network, based as it has been on delivery of Plain Old Telephone Service (POTS), soon will lag behind the reality of the evolving network.

In addition, the FCC has adopted a National Broadband Plan (NBP) pursuant to which the Commission anticipates the national telecommunications network will migrate fully from a TDM-basis to an IP-basis by 2018 (or thereabouts). In light of these changes, AT&T and NTCA seek to open a national discussion about what regulations should govern the new IP-based network. The CPUC encourages the FCC to begin that discussion, but cautions that critical legal and jurisdictional questions must be addressed at the outset, as discussed below. Prior to authorizing or mandating any regulatory overhaul, the Commission must address critical issues involving the jurisdiction of the states, pursuant not only to the Communications Act, as amended, but to state authority embodied in the United States Constitution.

I. INTRODUCTION

On November 7, 2012, AT&T filed with the FCC a Petition to Launch a Proceeding Concerning the TDM-to-IP Transition (AT&T Petition).¹ Then, on November 19, 2012, the National Telecommunications Cooperative Association (NTCA) filed with the FCC its Petition for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution (NCTA Petition).² Each of the petitions proposes that the FCC open a rulemaking, but the respective proposals of the two petitions diverge in significant ways.

A. AT&T Petition

In its Petition, AT&T asserts that 1) incumbent Local Exchange Carriers (ILECs) are subject to disproportionate regulation, and ILECs are no longer dominant in any relevant market;³ 2) traditional regulations that “effectively require carriers to keep legacy TDM networks in place even after they have upgraded to all-IP networks;”⁴ should be eliminated as part of the transition to an IP-based network; and 3) the FCC should open a rulemaking as a means to consider trials in “specific wire centers” where customers would be transitioned from Time Division Multiplex (TDM) technology to Internet

¹ *AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition (AT&T Petition)*, filed November 7, 2012.

² *Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution*, filed November 19, 2012

³ *AT&T Petition*, pp. 10-11

⁴ *Id.*, pp. 11-12.

Protocol (IP) technology, a process that AT&T proposes be accompanied by regulatory reform.⁵ The gist of AT&T’s petition is a push for regulatory reform, based on its position that “the regulatory environment will influence providers’ future investment decisions,”⁶ and therefore urges the FCC to “open a dialogue ... with the express recognition that a twenty-first-century network will require a twenty-first-century regulatory regime.”⁷ Citing its extensive current and planned investments in next-generation services, IP-based wireline broadband facilities, and deployment of LTE wireless technology, AT&T argues that such investments will be stymied by continued regulation based on a common carrier TDM network.

AT&T asserts that 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.”⁸ Specifically, AT&T recommends discontinuance of a statutory requirement that carriers seeking to eliminate or reduce service to a community must first obtain permission from the FCC to the extent that discontinuing TDM offerings and replacing them with IP-based service might trigger a need for FCC approval.⁹ To further that goal, AT&T echoes the position that USTelecom advocated in a February 2012 petition to the FCC for forbearance from the § 214 service

⁵ *Id.*, p. 20.

⁶ *Id.*, p. 4.

⁷ *Id.*

⁸ *Id.*, p. 11.

⁹ *Id.*, p. 13; *see* 47 U.S.C. § 214(a): “No 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.”

termination requirement.¹⁰ In addition, AT&T supports USTelecom’s request for forbearance from the Commission’s short-term notice of network-change rules regarding notice to carriers of network changes, to the extent those rules require duplicative notice to carriers affected by network changes “before the clock for objections may start running”.¹¹

AT&T seeks elimination of state-imposed rules pertaining to “on demand telecommunications services [provided] to all customers in a given geographic area.”¹² While AT&T does not use the term, this appears to be a reference to “carrier-of-last-resort” (COLR) requirements. Claiming that continuing to meet state COLR obligations would require it to maintain two networks, AT&T argues that even the threat of COLR obligations in an all-IP world would discourage investment.¹³ AT&T advocates moving towards “a rational procurement model for ensuring universal service” based on voluntary carrier service commitments for which the carrier would receive universal service funding.¹⁴

AT&T further argues that all Voice over Internet Protocol (VoIP) services “are appropriately classified as interstate information services over which the Commission has

¹⁰ *Id.*; the FCC has not yet acted on the USTelecom petition.

¹¹ *Id.*, p. 15.

¹² *Id.*, p. 15.

¹³ *Id.*, p. 16.

¹⁴ *Id.*, p. 17.

exclusive jurisdiction.”¹⁵ In addition, AT&T proposes elimination of the following: “equal access” obligations, by which customers have competitive choice of “local” and “long-distance” carriers; “dialing parity,” which allows customers to pre-select a long-distance provider; and legacy copper loop requirements, whereby ILECs retain copper distribution facilities even where they have upgraded trunks to fiber-optic facilities.¹⁶

Finally, AT&T asks the FCC to open a rulemaking “to consider implementing a number of geographically limited trial runs” that AT&T believes would help facilitate the transition to an all IP-network.¹⁷ Specifically, AT&T urges the FCC to ask ILECs to submit proposals for specific wire centers (or rate centers) where the trials would be conducted.¹⁸ AT&T proposes first that within the designated wire centers, “outdated ‘telephone company’ regulations” that might require maintenance of legacy networks, even after replacement services are in place, be eliminated.¹⁹ Second, AT&T recommends that in the trial wire centers, the FCC “preclude carriers (including carrier customers) from demanding service or interconnection in TDM format.”²⁰ Third, AT&T proposes that in the trial wire centers, the FCC implement reforms to “facilitate the migration of end-user customer from legacy to next-generation services,” and in particular, permit service providers to notify customers that TDM services will no longer

¹⁵ *Id.*, p. 18. VoIP service is a voice service delivered using Internet Protocol. Contrary to AT&T’s claim, the FCC has not classified VoIP as an “information service.”

¹⁶ *Id.*, pp. 18-20.

¹⁷ *Id.*, p. 20

¹⁸ *Id.*

¹⁹ *Id.*, p. 21.

²⁰ *Id.*

be available after the transition to IP-based services.²¹ “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.”²²

B. NTCA Petition

The core of the NTCA approach is that the TDM-based Public Switched Telephone Network (PSTN) and the envisaged IP network of the future are not separate networks, but part of one evolving network that – under either guise – continues to use many of the same components (last-mile copper, middle mile or special access lines, pole attachments, conduits, etc.):

Rather, what is occurring already and should be promoted and sustained is an *evolution* of the PSTN – a technology shift *within* a network (or really, a series of interconnected networks) Circuit switching is already shifting to packet routing (such that it could perhaps better be said that we are moving toward a “PRCN” or a “Public Routed Communications Network,” and end-user devices have already been evolving from plain-old telephones to smarter devices of all kinds.²³

Rejecting approaches that would tear down the foundation of the current regulatory scheme, or leave the foundation standing unchanged, NTCA advocates instead a “balanced approach of ‘smart regulation’ that examines what has worked (or not) in

²¹ *Id.*, pp. 21-22.

²² *Id.*, p. 22.

²³ NCTA Petition, at 2.

protecting consumers, promoting competition, and ensuring universal service.”²⁴ More specifically, NTCA proposes that the Commission should strive for balance.

[T]he Commission should seek to maintain certainty by retaining and reasserting a firm and clear regulatory foundation, while coordinating with state counterparts to examine specific bricks for potential replacement, repair, or removal where their utility or effectiveness is in question.²⁵

NTCA then recommends three steps for the FCC:

- 1) Develop a list of specific existing regulations that may have limited or no applicability in the IP-world.
- 2) Seek comment on which of the identified regulations (a) might be eliminated to enhance the migration to an IP-world; (b) might be retained in current form to protect consumers, promote competition, or ensure universal service; and (c) might be retained but modified to further the evolution to an IP-world.
- 3) Set a firm but reasonable deadline to complete this “refreshing” of the governing regulatory framework.²⁶

NTCA also proposes that the FCC pair its proposed “smart regulation” review with near-term economic incentives that would stimulate the continuing IP evolution.

NTCA suggests, for example, that the FCC should consider an incentive-based mechanism that would allow carriers to recover costs for the exchange of communications traffic where they agree to make available IP-based interconnection in accordance with the existing statutory framework.²⁷ Specifically, NTCA urges the FCC to (a) confirm that all interconnection for the exchange of traffic is governed by

²⁴ NCTA Petition, pp. ii, 5-10.

²⁵ *Id.*, p. 10.

²⁶ *Id.*, p. 12.

²⁷ *Id.*, p. 13.

provisions of the Communications Act, regardless of the type of technology used to achieve interconnection, and (b) provide carriers with an incentive to offer IP interconnection by allowing them to recover in rates the putative costs of exchanging IP traffic.²⁸ NTCA posits that there are “sound economic and policy justifications for adopting” near-term measures to stimulate and sustain investments in IP-enabled networks.²⁹

II. DISCUSSION

The move from TDM-based telecommunications networks in the United States to IP-based networks is a transition of tremendous importance, with implications for all aspects of American business and private life. The FCC and the State of California both have adopted public policies supporting universal deployment of advanced services that ideally will provide consumers and businesses with more choice, efficiency, opportunity, and the means to achieve higher productivity. Other nations are transitioning as well, and the United States must move in the same direction to remain competitive.

All of that having been said, and while California fully supports the move to IP-based networks, a move that has been underway for more than a decade, the devil is in the details. The instant petitions highlight the different approaches to the move to an all-IP world. The AT&T approach favors elimination of regulations that are associated with a TDM-based network, on the theory that the transition to IP-based networks in and of itself obviates the need for any regulations. The NTCA petition, on the other hand, steers

²⁸ *Id.*, p. 14.

²⁹ *Id.*, p. 15

a middle course, acknowledging that some existing regulations will be (or already are) anachronistic in an IP-world, but others may remain as vital in governing an IP-based network as they have been in the TDM world. The task before the FCC is to initiate this discussion now, as the transition will be some years in the making and the sooner the discussion begins, the sooner the issues can be addressed and resolved.

A. The FCC Must Address Critical Questions of State Versus Federal Jurisdiction

The AT&T petition in particular raises broad and far-reaching questions about state jurisdiction, and the role of the states in the TDM-to-IP transition. The provision of local telephone service historically has been in the purview of the states, which approve applications to serve in specific areas as well as requests to withdraw service, which establish COLR obligations, and which, pursuant to delegated federal authority, maintain rules regarding access to rights-of-way. The AT&T proposal necessarily posits the question of whether states or the FCC can determine whether COLR obligations and concomitant withdrawal of service, as well as authority over utility poles, can be abrogated in the context of all-IP trials.

Specifically, AT&T proposes discontinuing a statutory requirement that carriers seeking to exit service in a community must first obtain permission from the FCC, and FCC forbearance from the § 214 service termination requirement where a carrier transitions from TDM-based services to IP-based ones. AT&T does not mention state requirements addressing termination of service, which are necessarily implicated by its proposal. AT&T argues that the FCC “has ample legal authority under its waiver and

forbearance powers to conduct these geographically limited trial runs.” It is unclear whether the FCC could, as AT&T suggests, forbear from these requirements. But it is certain that the FCC cannot forbear from state authority over intrastate services. Nor can the Commission assume by fiat that all traffic is interstate simply because it is provided using a transmission protocol incorporating the word “Internet.”

The AT&T petition, in recommending forced migration of customers into all-IP trials accompanied by an abandonment of regulations regarding the obligation to serve, equal access, dialing parity, and other existing requirements, raises a host of state jurisdictional issues quite apart from those implicated by the Communications Act, as amended. These regulations have ensured consumers a basic level of service and access to competitors in the TDM world. Many of the regulations may, in fact, be outdated and unnecessary in an IP-world, but removing them wholesale, even in the context of a trial should not occur without an evaluation of their utility, as NTCA proposes. As NTCA notes, its middle course “would also ensure that the authority and core competencies of state public utility commissions ... are acknowledged, respected, and incorporated within the process.”³⁰ In contrast, AT&T’s proposal puts the cart before the horse. The jurisdiction of the FCC or the federal government to consider ordering the closure of any wire center that serves an intrastate telephone service must be addressed before

³⁰ NTCA, at 10, citing 47 U.S.C. §§ 152(b) (preserving state jurisdiction over intrastate communications), 252 (defining the state role in setting rates for reciprocal compensation and approving/arbitrating interconnection agreements), and 254(a)(1) (regarding the States’ role in universal service programs).

considering the potential merits of any proposal to begin trials of all-IP networks in specific wire centers.³¹

B. The FCC Should Open a Rulemaking to Address Transition Issues

The CPUC supports the proposals of both AT&T and NTCA that the FCC open a rulemaking to begin to address and resolve the myriad issues presented by the transition from TDM-based telecommunications networks to IP-based networks, already underway. In particular, however, California supports a rulemaking consistent with what NTCA proposes, i.e., a proceeding in which the FCC examines how the existing regulatory structure might be adapted to a new all-IP world without sacrificing consumer protection, network reliability, competition, and universal service. For example, given that the FCC has yet to resolve how universal service would be funded in an IP-world, it would be detrimental for the FCC to adopt AT&T's proposal to eliminate existing regulations governing provision of universal service. Further, the FCC must consider and resolve the role of the states both in overseeing provision of universal service (in all its forms at the state level), and in ensuring that consumers are protected. Clearly, too, network reliability should not be sacrificed for technology migration; new networks must be shown to be reliable before regulations are modified to accommodate them.

Accordingly, recognizing that the TDM-to-IP transition is well underway does not mean that all regulations established in the TDM world should be eliminated, as AT&T's

³¹ The FCC also must determine whether wire centers need to be closed on a trial basis or otherwise if, as the NTCA petition suggests, the process involves merely replacing circuit-switches with routers. The latter is a process already underway with the decommissioning of circuit-switches and the rehomings of those circuits to routers or "soft switches."

petition seems to suggest, or that TDM service must entirely disappear at some date certain in every jurisdiction.³² AT&T's petition outlines regulatory changes that it proposes are necessary for migration to an all-IP network, even though investments are being made and the migration already is occurring without those regulatory changes. The FCC must now determine what regulatory changes are needed while ensuring that this network migration does not degrade the network or the services customers purchase. To that end, the FCC should resolve how, for example, any necessary regulatory changes can be effected yet still preserve consumer protection, network reliability, and affordable service. Whether classified as a telecommunications or an information network, a unitary communications network remains essential for this country – in economic, political, and socio-cultural terms.

The CPUC suggests two possible paths for conducting IP-migration trials, in light of state jurisdictional issues and constitutional questions. One would be for the FCC to hold such trials only in states that have no COLR requirements and do not require state approval for withdrawal of service. Concomitantly, the FCC could work with the states to ensure that issues of fundamental concern to state commissions are addressed in the move towards setting up trials in multiple states consistent with state jurisdiction and rules, the federal and state constitutions, the Communications Act of 1934, and other applicable federal and state statutes. The NTCA approach of examining the existing

³² The CPUC recognizes that the vast majority of the network may well migrate voluntarily to an IP-basis, but that some stage of the migration may have to be accomplished on a flash-cut basis.

regulatory scheme to see what works and what does not, or rather what likely would work and what likely would not work in an all IP-world, is a more rational approach.

Consistent with the recommendation that the FCC open a rulemaking, the CPUC identifies here clusters of issues the Commission should address in a rulemaking.

Issues raised by AT&T's proposal for all-IP trials include the following:

- 1) Does the FCC have authority to pre-empt state jurisdiction over intrastate services, such as provision of POTS, COLR obligations, rules pertaining to service quality or service withdrawal, rules pertaining to consumer protection, rights-of-way, pole attachments, and other state regulations?
- 2) Should trial wire centers be located only in states that have eliminated COLR obligations and do not require state approval for withdrawal of service?
- 3) Would customers be given a choice to migrate, or would migration be imposed? Is there practical way to allow customers to choose not to migrate for purposes of the trial?
- 4) Would those ILECs in the trial area(s) currently required to provide competitive carriers access to UNEs continue to be required to do so during the trial(s)? In what way, if any, does the technical migration to IP have a bearing on the rules governing competition access and interconnection?
- 5) Assuming that long-term maintenance of two co-existing networks could be prohibitively costly, could two networks be maintained for purposes of the trials, and, if so, what are the pros and cons of doing so? What is meant by "two networks" in this context? Does a change of protocols mean a change of networks, or of underlying facilities? Further, what does the word "network" mean in this context? In what ways do IP-networks depend upon facilities that also provide TDM services such that while the services may change and the transmission protocol be modified, the physical facilities continue to constitute the basis of the network independent of transmission protocols?
- 6) What criteria will be in place to measure the success of the trials? Who will develop those criteria? Who will judge whether they have been met in

practice? On what basis will discrimination between useful technological advances and appropriate regulatory changes be arbitrated?

Additional Issues raised by NTCA's proposal:

The CPUC supports NTCA's proposal for the FCC to confirm the status of interconnection in the all-IP world. NTCA's recommendation, however, that the FCC deem all interconnection subject to sections 251 and 252 of the Communications Act would be inconsistent with the Act, which states that only providers of "telecommunications services" are afforded the rights, duties, and protections of §§ 251 and 252.³³ While CPUC sees great value in ensuring that IP-based service providers can and should interconnect freely with TDM-based networks and with themselves, and be bound by obligations to interconnect and complete calls regardless of network protocol, the FCC to date has not determined that IP-enabled or Voice-over-Internet-Protocol (VoIP) services are, in fact, telecommunications services. As with the jurisdictional and constitutional questions, the FCC must resolve issues pertaining to interconnection before affording providers of IP-based services the rights, duties, and protections of §§ 251 and 252. The proposed trials should not provide an avenue to reinterpret or revise the Communications Act absent Congressional action.

Certain other policy issues also need to be addressed as well in any proceeding the FCC opens to guide the transition to an all-IP network, whether or not the FCC institutes trials. In comments submitted December 18, 2009, with the FCC, the CPUC outlined

³³ See 47 U.S.C. § 251 (a) General Duty of Telecommunications Carriers," which includes the duty "to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers".

various issues, including, how to define universal service, COLR obligations, service quality regulation, and numbering administration. Furthermore any rulemaking proceeding should address the manner in which the IP Transition can continue without further contributing to an “IP Divide,” or exacerbating risks to public safety.

IV. CONCLUSION

The CPUC submits these comments to support the proposals from AT&T and NTCA for the FCC to open a rulemaking to address the many and varied regulatory issues associated with the on-going move from a TDM-based network to an IP-based network. California recognizes that the transition to an IP-based network is already underway. At the same time, the CPUC deems it imperative that the FCC first address constitutional and jurisdictional questions before adopting wholesale regulatory changes to facilitate the transition for service providers. California urges the FCC to seek to continue implementing the IP-transition in a way that will preserve states’ ability to ensure universal service, protect consumers, ensure reliability of their essential communications networks, and promote competition. The sooner these issues are resolved, the smoother the transition will be.

Respectfully submitted,

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