

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

Technology Transitions Policy Task
Force Seeks Comment on Potential
Trials

GN Docket No. 13-5

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

GN Docket No. 12-353

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

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

FRANK R. LINDH
HELEN M. MICKIEWICZ
CHRISTOPHER WITTEMAN

Attorneys for the California
Public Utilities Commission and
The People of the State of California

505 Van Ness Avenue
San Francisco, CA 94102
Phone: (415) 355-5524
Fax: (415) 703-4592
wit@cpuc.ca.gov

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I. INTRODUCTION AND SUMMARY

The California Public Utilities Commission and the People of the State of California (CPUC or California) submit these comments in response to a Public Notice of the Federal Communications Commission (FCC or Commission), announcing the request for comment by the FCC's Technology Transitions Policy Task Force (Task Force).¹ The Public Notice seeks comment on trials proposed to explore the ongoing transition of the nation's communications network from a traditional wireline technology ("TDM"-based) to a network that runs on internet-protocol ("IP"-based technology).² The Task Force has proposed several varieties of trials, including interconnection for Voice over IP (VoIP) providers, public safety (E911 services), wireline-to-wireless transition for rural customers, and "geographic all-IP trials." The Task Force also asks for comment on potential "additional trials," including trials related to numbering and related databases, access for people with disabilities, and "trials that focus more specifically on the copper-to-fiber transition" and "copper retirement" questions. Finally, the FCC asks about legal issues associated with such trials, including the role of the states in these trials.³

The Task Force asserts that the "goal of any trials would be to gather a factual record to help determine what policies are appropriate to promote investment and innovation while protecting consumers, promoting competition, and ensuring that

¹ Technology Transitions Policy Task Force Seeks Comment on Potential Trials GN Docket 13-5 (DA 12-1016), released May 10, 2013. FCC May 10, 2013 Public Notice DA 13-1016, captioned "Technology Transitions Policy Task Force Seeks Comment on Potential Trials, GN Docket No. 13-5" (hereinafter "Public Notice") (available at <http://www.fcc.gov/document/technology-transitions-policy-task-force-seeks-comment-trials>).

² Time-Division Multiplexing (TDM) is a circuit-switched technology used to provide what is commonly referred to as traditional wireline telephone service or "plain old telephone service" (POTS); it is usually delivered to customers over twisted pairs of copper wires called "copper loops," which provide the final link between the service provider's network and the customer's premises. Versions of TDM are also used on wireless networks. Internet Protocol (IP)-based services are those that typically travel over fiber optic cables, co-axial cables, wireless facilities, and DSL copper wires, but use an Internet-based technology in lieu of switched circuits to deliver traffic. While TDM and IP transmissions are both digitized, IP is packetized in a way that allows the packets to travel over multiple routes to the called party or terminating address.

³ The Task Force asks separately about the "Role of State and Tribal Governments" and "Legal Issues." See Public Notice, at 12-13. These Comments address the State Role under the rubric of Legal Issues, as the question of the states' role in any transition raises issues that are largely legal.

emerging all-Internet Protocol (IP) networks remain resilient”⁴ While these goals are laudable, the CPUC assumes that any trials (with the possible exception of geographically limited all-IP trials) will be just that, trials, which assumes that the *status quo ante* could be restored at the end of the trial.

The CPUC recognizes that trials can be a useful tool for identifying technical problems, unearthing commercial realities, and testing possible solutions. If structured correctly, trials can provide a factual record that will advance the Commission’s goals of growth, innovation, competition, safety, and consumer protection.

Like many commenters, however, the CPUC believes that the FCC must address an array of legal/regulatory questions, some immediate and some long-standing, before forging ahead with any trials or “regulatory experiments,” as AT&T proposes. These legal/regulatory questions include the extent to which consumer participation in the trials will be voluntary, the role of the states (especially where the trials might conflict with state basic service, carrier-of-last-resort, and other state laws and rules), and the legal status of VoIP and other IP-enabled technologies (at least for purposes of the trials). In California, for example, the CPUC must approve any withdrawal of service, such as that implicated by a trial involving the closing of a central office, or the cessation or suspension of services presently provided to California consumers.

The CPUC recommends that consumer participation in the trials be voluntary. We urge the Commission to use such trials to collect as much data as possible about the technical issues and commercial realities surrounding the transition to IP networks, and to share all such data with the states.

As many commenters have noted, the TDM-IP transition has been happening for the last 10-15 years. Indeed, the Commission could usefully survey those customers and carriers who have already switched their service to VoIP/IP, and analyze the current status of the transition to IP-enabled services. Much of what the Commission has stated

⁴ Public Notice, *supra*, Page 1. FCC Chairman Julius Genachowski announced the formation of the Task Force, led by FCC General Counsel Sean Lev, and staffed entirely by FCC personnel, in a December 10, 2012 press release.

since the National Broadband Plan treats the IP migration as an impending development, even as the Commission recognizes that this development is underway. If the migration is in various stages of implementation, it is prudent to examine these developmental stages to determine where the migration has been seamless, where it has been eventful, where standards have already been designed and applied, and where standards or rules are needed to protect consumers, assure safety and reliability, and preserve competition.

II. DISCUSSION

A. Background

In November 2012, AT&T Inc. (AT&T) and the National Telecommunications Cooperative Association (NTCA) filed separate Petitions proposing that the Commission open a rulemaking to address a host of issues arising from the ongoing transition of the nation's communications network from TDM to IP. AT&T additionally proposed that the Commission conduct "trials." The Commission took comment on both Petitions.

In its January 28, 2013 Comments, the CPUC noted that the Petitions contained proposals that, if adopted, would dramatically affect state jurisdiction. AT&T recommended, for example, that it be authorized to close certain wire centers as part of the trials. The CPUC noted that granting such authorization, without resolving critical jurisdictional issues, was tantamount to "putting the cart before the horse."⁵ The CPUC's Comments raised a number of issues concerning the possibility of trials, and anticipated that the Commission would clarify some of these issues before ordering trials, specifically pertaining to retention of consumer protections, network reliability, competition, and universal service.⁶

The CPUC notes that numerous other commenters in the January 28th round of comments also stressed the importance of settling the many outstanding issues *before* trials are ordered. The Pennsylvania PUC urged that outstanding federal-state issues be addressed in already-open proceedings (and that the IP Petitions be denied); it worried that the proposed trials, were they to go forward without rulings on these issues, might

⁵ CPUC January 28, 2013 Comments, at 10-11.

⁶ Comments at 11.

constitute a *de facto* attempt to “rewrite federal law.”⁷ The USF Joint Board and NARUC also asked that the AT&T Petition for trials be denied, and urged the Commission to decide outstanding legal issues in the USF/Interconnection proceeding where the issues have already been framed.⁸ COMPTTEL (the competitive carriers) asserted that “any test of the transition” should be preceded by the development of a standard IP interconnection agreement which would be “compliant with sections 251 and 252, [and] which will be filed and available for opt-in by other carriers to curb further disputes ... before [the incumbent carrier is] allowed to shut down its TDM network, even for a ‘test’.”⁹ Sprint Nextel ask that the Petitions be denied, and that the Commission “immediately and explicitly re-affirm that Sections 251 and 252 apply to IP voice interconnection.”¹⁰

Rather than rule on these issues, the FCC’s Task Force released a May 10, 2013 Public Notice “propos[ing] to move forward with real-world trials” and requesting comments on “a set of potential trials to assist the Commission in ensuring that policy decisions related to ongoing technology transitions are grounded in sound data.”¹¹ The CPUC assumes that the Commission will issue an order prior to any trials; the question is how the Commission will define the scope of the trials, and how squarely the Commission will address outstanding legal issues before those trials begin.

B. Trials

1. Scope

While the Task Force suggests the trials focus on three areas primarily – VoIP interconnection, NG 911, and wireless-to-wireline – it then adds the prospect of a fourth

⁷ January 28, 2013 Comments of Pennsylvania PUC, at 2-3 (“constitutional and cooperative federalism” and “a modified form of common carriage,” *inter alia*, need to be preserved in rulings in existing proceedings, including “National Broadband Plan, the Connect America Fund proceeding, various forbearance requests, intercarrier compensation matters ... the current ICC/USF Order, and ancillary proceedings such as the pending petitions on retirement of copper”).

⁸ *See, e.g.*, January 28, 2013 Comments of NARUC, at 11-20 (discussing numerous definitional issues that would necessarily need to be decided before trials with an intrastate component could commence).

⁹ January 28, 2013 Comments of COMPTTEL, at 5.

¹⁰ February 25, 2013 Sprint Nextel Reply Comments, at 5.

¹¹ Public Notice, at 1-2.

sort of trial, a “geographic all-IP trial.”¹² This poses the question of whether an “all-IP” trial would include trials of VoIP interconnection, NG911, and wireless-to-wireline transition. If those latter are not conceived of as part of geographically delimited all-IP trials, what will be their scope? Would geographic all-IP trials be limited to designated central offices where the incumbent would replace all the relevant equipment? To what extent would a geographic all-IP trial require mandatory changes in customer premises equipment, and to what extent would consumer participation be voluntary?

From a technical perspective, successful trials have several components: a written plan; agreement of the parties; a time frame; and a methodology for resolving problems encountered. A written plan can include: entry criteria; exit criteria; success criteria; responsibilities of parties; timelines; test plans; operational notifications (including customer complaints; and a plan for maintaining quality of service. The recently Commission Order authorizing numbering trials, and the proposals of *Vonage et alia* in response to the Commission’s Order, cover some but not all of these items.¹³

2. VOIP Interconnection

The Task Force seeks “comment on a VoIP interconnection trial that would gather data to determine whether there are technical issues that need to be addressed and gather information relevant to the appropriate policy framework.”¹⁴ While the proposed trials appear to implicate technical, business, and economic issues, underlying these issues is the legal question as to what rights a VoIP carrier has to interconnect. This matter is discussed below under Legal Issues.

The Commission considers “allowing providers that participate in a trial to negotiate in good faith” for interconnection, and – failing that – to perhaps “conduct another trial where parties agree to negotiate pursuant to the existing 251/252 framework.” The CPUC is wary of committing its Administrative Law Judge Division to

¹² *Id.* at 10.

¹³ See FCC April 18, 2013 NPRM, Order, and NOI, *In re Numbering Policies for Modern Communications.*, WC Docket No. 13-97, at ¶¶ 87 *ff.* See also proposals of Vonage and other VoIP service providers, filed subsequently in that docket.

¹⁴ Public Notice, at 3-5.

any state arbitration responsibilities under section 251/252, should those responsibilities be expanded to include VoIP carriers, absent clear regulatory or statutory guidance to VoIP carriers.¹⁵ The Communications Act provides that only telecommunications carriers are entitled to interconnection under section 251, and thus to arbitration of interconnection disputes. The Commission should determine whether VoIP or IP-enabled service providers fall within the class of carriers that is entitled to interconnection and arbitration. Many states have passed laws that have eliminated or restricted state commission jurisdiction over VoIP and IP services, and these laws may impede state arbitration of interconnection disputes involving such IP-enabled service providers. Thus, at least for purposes of the proposed trials, the Commission should determine that VoIP is a “telecommunications service.” Should the requisite definitional clarity not be forthcoming, California recommends that the FCC or an independent entity the FCC identifies, not the state commissions, arbitrate any interconnection disputes emanating from the trials (or allow state commissions to opt out of the trials).

The CPUC recommends that the Commission, if and when it does go forward with trials, design them so as to obtain as much information as possible about the technical, economic, and legal aspects of interconnection today, including copies of all interconnection agreements negotiated and executed during the term of the trial (if not also IP interconnection agreements negotiated and executed in the last five years of transition to IP). Indeed, maximum information harvest should be a Commission goal in any trial.

3. Next Generation 911

The Task Force notes “as we transition away from TDM, the nation’s emergency calling (911) system must also migrate to Next Generation 9-1-1 (NG911).” The Task Force seeks comment “on a trial that will assist the Commission, state, local and Tribal governments, and Public Safety Answering Points (PSAPs) in a few geographic areas to

¹⁵ Even under the fairly detailed regimen for traditional carriers to interconnect, the CPUC and other state commissions are routinely pulled into federal court to litigate these questions. *See, e.g., Global NAPs v. CPUC*, 624 F.3d 1225 (9th Cir. 2011).

answer important technical and policy questions to accelerate the transition. Beyond NG911, we also seek comment on how a trial could elicit data on the impact of network resiliency and public safety more broadly as consumers migrate to wireless and IP-based services that are dependent on commercial power.”

Although the scope of the proposed trial is unclear, California strongly supports trials of NG 911 services. California is currently conducting five such trials.¹⁶ Here again, the Commission should share not only what it might learn from NG911 trials, but what it may already know from NG911 trials across the country.

4. Wireline to Wireless

Noting that at least one provider (AT&T) has proposed serving consumers with wireless service in place of wireline service in certain geographic areas, the Task Force seeks “comment on a trial that would analyze the impact of doing so and, in particular, focus on the consumer experience and ensure that consumers have the ability to move back to a wireline product during the trial.”¹⁷

If the Commission decides to conduct such trials, California recommends that customers in the trial areas have the option of wireline or wireless service during the trial; i.e., that there be no forced migration. In order to allow consumers to make an informed decision, providers participating in the trial should be required to fully disclose any differences between a customer’s existing wireline and new wireless service *prior* to the customer’s decision to switch or not. Participation in these trials should be voluntary, and should comply with relevant state and federal laws. California requires that COLRs offer “basic service” defined by CPUC Decision.¹⁸ That decision requires a number of service elements including voice service from the subscriber’s residence to the PSTN, access to 911/E911, 800, directory listings, and operator services, and service quality that is at least comparable to current standards, among other requirements. Today all “basic

¹⁶ See also CPUC May 13, 2013 Comments *In Re Improving 9-1-1 Reliability*, PS Docket Nos. 13-75 and 11-60 (urging the Commission to “adopt technology-neutral minimum backup requirements for 9-1-1- networks”).

¹⁷ Public Notice, at 8-9.

¹⁸ See D.12-12-038, at Appendix A (available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M039/K603/39603602.doc>).

service" in California is provided via wireline. California's basic service rules allow a COLR to petition the CPUC to allow it to provide basic service via another technology, and a carrier may do so only after CPUC approval in a noticed proceeding. Carriers should be required to maintain the existing wireline infrastructure for the period of the trial, so that consumers who have subscribed to the trial have the option of returning to their existing service at the end of the trial.

Voluntariness, however, becomes more problematic should a wireline-to-wireless transition be attempted in the context of a "geographic all-IP" trial, and thus consumer protections become even more important. Consumers should be compensated for any loss of service during the trial.

Should the trials go forward, the CPUC urges the Commission to require carriers participating in such trials to collect and submit a variety of data, including technical data on wireless call quality, as well as responses to customer satisfaction surveys, to the Commission and to the States for review and analysis.

5. Geographic All-IP Trials

As set forth elsewhere herein, the CPUC urges the Commission to make any trials fully reversible. This becomes more challenging in an all-IP trial which, the CPUC assumes, would involve replacing TDM switches with IP routers, and perhaps also replacing customer premises equipment. Because of the costs of installing this equipment, a fully reversible trial would be yet more problematic from an economic standpoint, meaning, in turn, that state and consumer buy-in become all the more critical.

The CPUC therefore asks for further information on the scope and nature of the proposed geographic all-IP trial, and would welcome the opportunity to comment on an actual trial proposal, and how consumer protection, choice, and access to emergency services might be best preserved. Any geographic all-IP trials should respect the cooperative federalism discussed below under Legal Issues, including California rules and laws regarding COLR and basic service.

6. Numbering

The Task Force notes that “the technology transition offers an opportunity to take a fresh look at the assignment of numbers.” Among other things, the Task Force seeks comment on whether a technology trial could serve as a means to test new technical proposals for assigning telephone numbers, e.g., individually instead of in blocks of 1000. As a threshold matter, any trial that involves direct assignment of numbers to VoIP providers raises legal issues, which are discussed below.

Further, the Commission has issued an *NPRM* proposing that VoIP providers obtain direct access to numbers from the NANPA.¹⁹ The CPUC will be filing extensive comments in response to the myriad issues raised in that *NPRM*. Here, though, the Task Force poses a narrower question, i.e., whether these proposed trials could test the assignment of numbers individually (individual telephone number [ITN] assignment) rather than the current assignment of 1000-blocks. Theoretically, the answer to that question is “yes,” but what is unclear from the questions posed is exactly how ITN assignment would work in the context of these proposed trials. Further, since the Commission has not yet determined whether VoIP providers should, as a broad legal matter, obtain numbers directly from the NANPA (except via the trials proposed in the Numbering *NPRM*), and if so, what rules would apply, it is similarly unclear how ITN assignment would work and what the state role would be.

The Task Force also asks if any numbering trial should be conducted in conjunction with a VoIP interconnection trial or separately.²⁰ The CPUC currently has no preference regarding whether or not they are trialed together or separately. In response to the questions whether states should be involved in selecting the geographic areas for any numbering trials, California and the CPUC wish to participate in the trials to the extent that they involve numbers currently, or proposed to be, assigned in California, assuming that the definitional issues discussed elsewhere herein are clarified.

¹⁹ April 18, 2013 *NPRM*, Order, and NOI, *In re Numbering Policies for Modern Communications.*, WC Docket No. 13-97

²⁰ Public Notice at 11.

Once again, the CPUC urges the Commission to provide states with full access to data collected during the trials. Providing access to states would facilitate analysis by subject matter experts in diverse state jurisdictions; the trial could only benefit from such analysis.

7. Copper to Fiber

The Task Force seeks “comment on whether we should have any trials that focus more specifically on the copper-to-fiber transition.”²¹ California opposes such a trial at this time. Many CLECS are dependent on the ILECs’ copper to deliver their services. The policy issues regarding CLEC access to ILEC fiber facilities should be addressed before any such trial is undertaken.²² The Commission need not wait for trials, however, to study areas where the copper-to-fiber transition has already taken place, and how this already-completed transition has affected CLEC access to customers, customer access to CLECs, and competition generally.

C. Legal Issues, including Role of the States

As a threshold matter, the CPUC seeks acknowledgement from the Commission that any trial in California affecting service offered by a state franchisee or holder of a Certificate of Public Convenience and Necessity (CPCN) must respect state law. The CPUC must retain authority to approve any withdrawal of service contemplated, proposed or implied by any trial, particularly where such withdrawal or cessation of service implicates carrier-of-last-resort (COLR) obligations, or involves closing a central office, suspension of existing service, or the forced migration of California customers to new (and potentially inferior) services. California also has rules regarding copper replacement.²³ In short, the system of cooperative federalism codified in the 1996 Telecommunications Act requires that any federal trial must respect state rules and laws,

²¹ *Id.*

²² See CPUC’s March 5, 2013 Comments on this subject in GN Docket 12-353.

²³ See D.08-11-033.

and cannot supersede California's basic service, withdrawal of service, or other laws and rules. This position is consistent with our January 28, 2013 Comments.²⁴

The Commission should be wary of carrier-initiated changes in service as part of a trial, which changes are not strictly voluntary from the consumer's point of view, or which involve mandatory change in customer premises equipment. The Commission should only allow such changes where full disclosure is required and consumer opt-out is allowed.

At the root of many of the questions described in these Comments – the Commission's authority to regulate VoIP interconnection, numbering, the role of the states, copper retirement – is the question of the regulatory classification of VoIP and other IP-enabled services. As early as 2004, the CPUC urged the Commission to “exercise its authority under Title II over voice-grade telephony service over IP ... to ensure that the fundamental policy objectives of the Act are realized.”²⁵ Among those policy objectives are universal service, competition, and a cooperative federalism that assures states a role in protecting the consumers of their state.

The Task Force's proposals for VoIP interconnection suggest why a formal Commission decision, establishing legal ground rules and regulatory parameters for the trials, is necessary before trials begin. At the same time that the Task Force proposes trials involving IP-interconnection, the largest incumbent carrier asserts that “the Commission lacks Title II authority to regulate interconnection between IP-based service

²⁴ CPUC's January 28, 2013 Comments at 9:

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.

²⁵ May 28, 2004 Comments of California and CPUC *In re IP Enabled Services*, WC Docket 04-36, at iii.

providers.”²⁶ There is arguably no reason to have a trial on VoIP interconnection if the Commission’s authority to act on the results of that trial is in doubt.

If the Commission moves forward with trials, the CPUC recommends that the Commission categorize VoIP as a “telecommunications” service to the extent necessary to conduct the trials. The rule for trials could be crafted similarly to the Proposed Rule for VoIP numbering: “For purposes of this [trial], the term ‘telecommunications carrier’ or ‘carrier’ shall include an interconnected VoIP service provider,”²⁷ as well as any other service provider engaged in the “transmission ... of information ... without change in the form or content of the information as sent and received.”²⁸ With this definitional preface to an order authorizing trials, VoIP and other IP-enabled service providers would be treated as telecommunications carriers under the 47 USC §§ 251-252 interconnection regime, and would have legal authority to request interconnection,²⁹ to obtain numbers directly for any trial involving numbering,³⁰ and standing to request pole attachments and similar access to necessary infrastructure.³¹

²⁶ Task Force Request for Comments, at fn. 23, citing AT&T’s January 28, 2013 comments in this docket.

²⁷ FCC April 18, 2013 NPRM, Order, and NOI, *In re Numbering Policies for Modern Communications.*, WC Docket No. 13-97, and related dockets, at Appendix A, Proposed Rule amending 47 CFR 52.5(i). Unfortunately, this rule was not adopted for the numbering trial authorized in the concomitant Order, but rather proposed as part of a future regime. This begs the question of how an entity not classified as a telecommunications carrier can legally participate in a system of “telecommunications numbering.” *See* 47 USC § 251(e)(1).

²⁸ 47 USC § 153(50).

²⁹ *See* 47 USC §§ 251-252; *see in particular* § 251(a) (only “telecommunications carriers” entitled to interconnect); § 251(c)(1) (only “telecommunications carriers” can request interconnection), *etc.*

³⁰ *See* 47 USC §251(e) (“telecommunications numbering”); 47 CFR § 52.9(a)(1) (FCC shall make “telecommunications numbering resources ... available to telecommunications carriers”).

³¹ *See* 47 USC 251(b)(4) (incumbents must only grant access to “poles, ducts, conduits and rights-of-way” to other “providers of telecommunications services”).

III. CONCLUSION

The above Comments walk a fine line between our belief that trials are an appropriate way to gather facts, and our concern that the Commission clarify the technical scope and legal framework of such trials before they begin.

Respectfully submitted,

FRANK R. LINDH
HELEN M. MICKIEWICZ
CHRISTOPHER WITTEMAN

By: /s/ CHRISTOPHER WITTEMAN

CHRISTOPHER WITTEMAN
Staff Counsel

Attorneys for the People of the
State of California and the
California Public Utilities
Commission