



**HOW THE FCC CAN LEAD THE WAY TO
INTERNET EVERYWHERE BY ENABLING THE IP TRANSITION**

Reply Comments of

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In the Matter of the Technological Transition
of the Nation's Communications Infrastructure

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How the FCC Can Lead the Way to Internet Everywhere by Enabling the IP Transition

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Introduction

AT&T's petition presents the FCC with a stark choice: Bootstrap the regulations of a dying 20th century technology platform onto the networks of the future, to ever-diminishing consumer benefits, or take the lead in coordinating the transition to "Internet Everywhere"—Internet analyst Larry Downes' term for a single IP-based networking standard built into all next-generation infrastructure and equipment.

A wide range of disparate, private wired and wireless networks using a variety of different hardware and software protocols are now converging on native IP technologies—sometimes by accident but increasingly by design. Once doubted, IP has now been embraced by traditional wireline, mobile, cable and satellite providers, as well as incumbent and next-generation content providers. Data, voice, and video are all converging onto a single standard, available wherever and whenever consumers want it.

Internet Everywhere in the near future is within our grasp—if only the Commission does what is necessary to allow and encourage it.

While we believe the FCC has a crucial, long-term role to play in shepherding the IP Transition, as outlined in TechFreedom's Comment,¹ this Reply Comment argues that the FCC should resist the urging of many commenters in this docket to erect regulatory barriers, however well-meaning, to protect consumers from harms that have not materialized and are unlikely ever to do so.

Instead, the Commission should adopt a clear program to facilitate the successful transition to an all-IP network by ensuring that it is unencumbered by inappropriate, legacy regulations. To start, the FCC should approve AT&T's petition. While the resulting trials are carried out, the agency should move to identify a date certain for concluding the IP Transition. And at the same time, the agency should make clear its intention to refrain from applying interconnection mandates and the apparatus of Title II to the IP network, thereby preempting conflicting state regulations that would otherwise derail the agency's efforts.

The IP Transition's Opportunity: Enabling Big Bang Disruption

In *Big Bang Disruption*, authors Larry Downes and Paul F. Nunes describe the emerging model of technology-based innovation, which is dramatically remaking every sector of the global economy.² This new ecosystem is emerging organically from the deployment of robust, global broadband IP

¹ Comments of TechFreedom, *In re* AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition and Petition of National Telecommunication Cooperatives Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution ("*In re* AT&T Petition"), GN Docket No. 12-353 ("TechFreedom Comments"), available at <http://apps.fcc.gov/ecfs/document/view?id=7022113680>

² Larry Downes & Paul F. Nunes, *Big Bang Disruption*, HARVARD BUSINESS REVIEW, March, 2013, at 44, available at <http://hbr.org/2013/03/big-bang-disruption/ar/1>.

networks, a dividend from over \$1 trillion invested in IP-based technologies in the first decade of the commercial Internet.³

The IP-based ecosystem reduces economic friction to dramatic effect. In information industries more than anywhere else, entrepreneurs now develop new products and services in real-time. Indeed, early users are increasingly co-developers, participating in product design, financing, marketing and even customer service. The result is a new kind of technology disruptor, the “big bang disruptor”: one that enters the market as a cheaper, higher-quality, and more customizable substitute for existing products offered by incumbent providers.

In many cases, incumbents fail to adapt, unable to accept the death of the generation of core technologies on which their companies were built. Photography pioneer Kodak, for example, was simply unable (or unwilling) to make the leap to all-digital imaging in time, and went bankrupt. Adding insult to injury, the company’s only remaining assets of any value proved to be a rapidly-declining portfolio of patents, which was sold for \$500 million.⁴

Challenging much of the conventional wisdom of strategy and competition, the authors argue that incumbents, if they are to survive, must learn to see disruption coming much sooner and react decisively and quickly.

Big bang disruption is nowhere more visible than it is in the communications industry. Yet many commenters in this docket assume—or simply wish—the future will look much like the past. They grossly underestimate—or at least pretend to, when it serves their interests—the magnitude of the shift taking place in our technology infrastructure.

They also fail to see the challenges faced by ILECs determined to avoid the fate of Kodak and other former industry giants who waited too long to retire obsolete technologies—TDM networks, in this case. Worst of all, these commenters downplay the potential benefits to consumers and the economy more broadly that a swift transition to an all-IP network presents.⁵

We see things differently. This is the moment of truth. The IP Transition is inevitable, but even the inevitable advance of technological progress can be delayed significantly by over-regulation, denying consumers the full benefits of living in the Internet Everywhere world. The FCC should immediately grant AT&T’s petition. And, while the trials are underway, the FCC should use that time to begin planning a pro-transition agenda that can be enacted swiftly upon successful completion of the trials—or modified as necessary to adjust for any lessons learned.

Specifically, the Commission should:

³ See Reed Hundt & Blair Levin, *THE POLITICS OF ABUNDANCE: HOW TECHNOLOGY CAN FIX THE BUDGET, REVIVE THE AMERICAN DREAM, AND ESTABLISH OBAMA’S LEGACY* 9 (2012).

⁴ Downes and Nunes at 54.

⁵ See *Connecting America: The National Broadband Plan*, § 4.5 at p. 59 (2010) (“National Broadband Plan”), available at <http://download.broadband.gov/plan/national-broadband-plan.pdf>. See also Larry Downes, *Creating a “Politics of Abundance” to Match Technology Innovation*, *Forbes* (Jan. 3, 2013), <http://www.forbes.com/sites/larrydownes/2013/01/03/creating-a-politics-of-abundance-to-match-technology-innovation/>; Larry Downes, *Telcos Race Toward an all-IP Future*, *CNET News* (Jan. 8, 2013), http://ces.cnet.com/8301-34435_1-57562644/telcos-race-toward-an-all-ip-future/.

1. Clearly define the IP Transition as a central Federal policy objective and make clear its intentions that VoIP be left unregulated. By doing so, the FCC would preempt state regulators' short-sighted efforts to preserve TDM networks beyond their useful lives to the long-term detriment of ratepayers.
2. Plan, and set a date certain for, complete IP Transition and TDM retirement, based on lessons learned in the successful transition from analog to digital television.
3. Rapidly retire legacy federal regulations that are unintentionally slowing the transition to all-IP networks and retarding the adoption of broadband, especially among rural and low-income populations.
4. Make clear that Title II regulations will never apply to IP networks, because the Communications Act as written does not allow this and such regulations are counter-productive in a competitive communications market.
5. Refrain from asserting Title I ancillary authority to impose mandated interconnection requirements on any IP networks, and instead leave interconnection in the hands of market competition and antitrust law.

The FCC has already started down the right path: The National Broadband Plan showed vision in urging the Commission to move immediately to accelerate the transition away from circuit-switched networks to native IP.⁶ As the Plan noted, “[r]egulations require certain carriers to maintain [legacy TDM networks]—a requirement that is not sustainable—and lead to investments in assets that could be stranded.”⁷

In creating the Technology Transitions Policy Task Force, the FCC took another important step to encourage the rapid transition “from special purpose to general purpose, from circuit-switched to packet-switched, and from copper to fiber and wireless-based networks.”⁸ Chairman Genachowski noted at the time:

Technological transitions don’t change the basic mission of the FCC. But technology changes can drive changes in markets and competition. And many of the Commission’s existing rules draw technology-based distinctions. So the ongoing changes in our nation’s communications networks require a hard look at many rules that were written for a different technological and market landscape.⁹

The point of these farsighted statements is both clear and accurate: Regulators should not pick winners and losers in the broadband ecosystem. But that truism does not mean the Commission should take no action to advance new technologies that are clearly superior.¹⁰ It is absurd to argue,

⁶ See National Broadband Plan, 59.

⁷ Id.

⁸ FCC, *FCC Chairman Announces Formation of “Technology Transitions Policy Task Force”*, (Dec. 10, 2012), <http://www.fcc.gov/document/fcc-chairman-announces-technology-transitions-policy-task-force>.

⁹ Id.

¹⁰ In nearly every government provision of spectrum in the last hundred years, Congress has clearly picked what it felt were “better” technologies and used policy levers to promote their adoption. Similarly, by excluding broadband Internet access from Title II regulations in the 1996 Communications Act, Congress affirmatively and wisely promoted an

as AARP has, that the FCC should ignore the unchallenged reality that IP networks, in design and implementation, are in every relevant measure exponentially better than TDM.¹¹ Rather, the Commission should continue to hasten their adoption, focus on making the transition as smooth as possible for all consumers (including the elderly) and refrain from placing regulatory impediments in the way of their success.

In general, the Commission fulfills its mission to promote “rapid, efficient, Nation-wide, and world-wide wire and radio communication service”¹² by encouraging—not delaying—rapid adoption of better technologies. Given the remarkable, on-going evolution in computing and communications, that mission requires that the agency continually revisit existing regulations to identify and expunge those that have been rendered redundant or even counter-productive by changes in the ecosystem.

Though AT&T wisely requests only modest forbearance to conduct geographically limited trials of the TDM-to-IP Transition, the full retirement of legacy switched network technologies is inevitable; it is not a question of whether, but when. The consumer benefits from the transition will depend on how the FCC handles what will prove the greatest challenge and opportunity in the agency’s long history.

Some critics of AT&T’s proposal have argued for the continued application of existing regulations (particularly interconnection mandates under Sections 251 and 252 of the Communications Act), arguing that these provisions should apply in a “technology neutral” fashion.¹³ According to these critics, “the policy justifications for requiring ILECs to provide interconnection and to submit to arbitration—namely, the ubiquity of ILECs’ telecommunications networks and market power that these pervasive networks confer—arise regardless of the technology used by those networks to transmit and exchange telecommunications traffic.”¹⁴

Not only are these critics’ complaints irrelevant to the proposed trials at issue here (which are small steps aimed at determining precisely *whether* such constraints as Sections 251 and 252 are appropriate), but their alleged policy justification is not, in fact, “technology neutral.” Instead, it would apply barnacled rules, crafted over decades specifically for the technology and business realities of the TDM-based PSTN, to a new ecosystem that shares few, if any, of the same characteristics.

unregulated market for IP-based services, and mandated the FCC to do the same. See, e.g., Communications Act of 1996, 47 U.S.C. §§ 153(24), 230, 706 (1996). See also *NCTA v. Brand X Internet Services*, 545 U.S. 967 (2005).

¹¹ See AARP, Comments to FCC, *In re AT&T Petition*, GN Docket No. 12-353, 1, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113482>. (“AARP Comments”). AARP essentially argues that because Americans over 65 still use wireline telephones, ILECs must continue to provide them with that option indefinitely.

¹² Communications Act of 1934, 47 USC § 151 (1934).

¹³ See, e.g., Comments of Competitive Carriers Association, *In re AT&T Petition*, GN Docket No. 12-353 (Filed Jan. 28, 2013), available at <http://apps.fcc.gov/ecfs/document/view?id=7022113646>. See also AARP Comments, *supra* note 11, at 25 (“To the extent that certain bricks in that foundation are in need of repair, need to be removed, or whether there are other bricks that are missing and need to be added, a collaborative effort between this Commission, state commissions, and other interested parties will ensure that statutory and policy objectives are fulfilled.”).

¹⁴ Comments of Competitive Carriers Association at 3.

Technology neutrality does not mean blindly implementing design principles suited for rope bridges as buildings codes for steel suspension spans. Modern structures are clearly better. They require entirely different rules, and different kinds of enforcement. Applying TDM rules to IP networks is bad business and bad public policy. It is these critics' unsupported claims—and the FCC's tentative efforts to impose interconnection mandates on IP networks¹⁵—that AT&T's proposal is intended to assess.¹⁶

Getting the transition right will not only save the ILECs from irrelevance. It will likely bolster the U.S. economy, accelerate the technological empowerment of Americans as both citizens and consumers, and sustain global competitiveness for U.S. technology companies. As the National Broadband Plan put it,

[B]roadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize, and disseminate knowledge.¹⁷

In *The Politics of Abundance*, former FCC Chairman Reed Hundt and his one-time chief of staff Blair Levin make a persuasive case that the shift to “connected computing”—broadband Internet, cloud-based services, and widespread mobile devices—is essential to jumpstart the U.S. economy. Hundt and Levin urge all levels of government to take immediate steps to support what they call the “knowledge platform”—ultra high-speed broadband with high reliability and low latency, able to support high-bandwidth, video-intensive applications and cloud-based services.

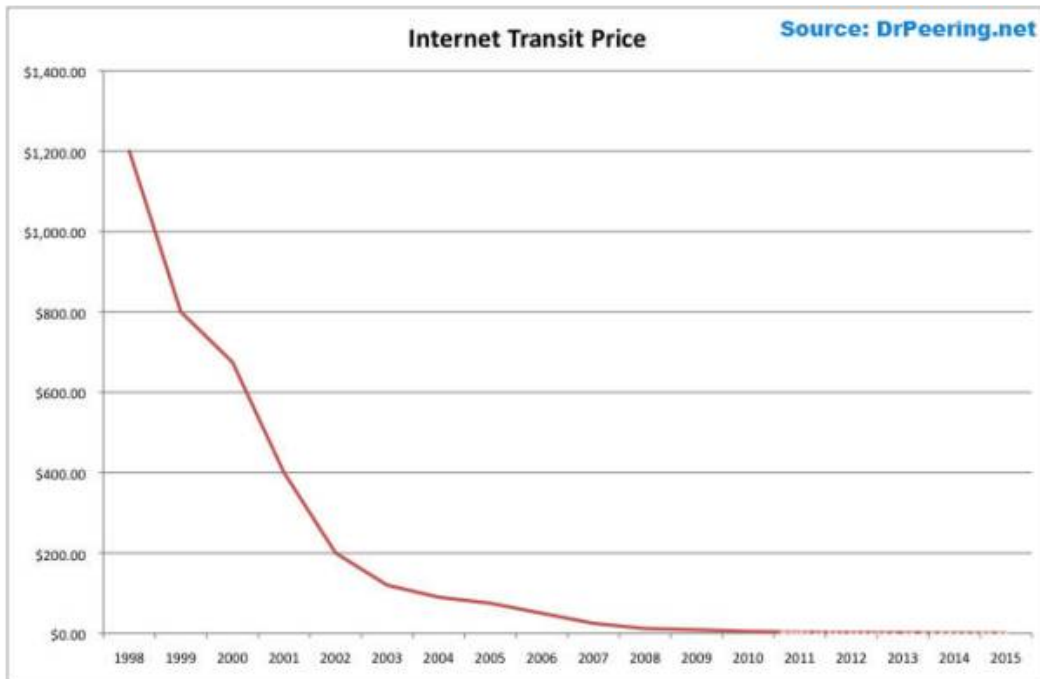
We agree. An all-IP-infrastructure is clearly better for everyone. The sooner we can complete the transition, the sooner we will reap the full dividends of continuing private and public investments in this new infrastructure. The transition to all-IP networks will bring our infrastructure considerably closer to a broadband ecosystem that adheres to the better-cheaper-faster trajectory of Moore's Law, which predicts computing power will continue to double every twelve to eighteen months, even as price holds constant. As Hundt and Levin write, “[t]o increase growth, job creation, productivity gains, and exports at a faster rate, government should double down on what is already doubling in the Internet sector.”¹⁸

¹⁵ See, e.g., Petition of CRC Communications of Maine, Inc. and Time Warner Cable Inc. for Preemption Pursuant to Section 253 of the Communications Act, as amended, Declaratory Ruling, 26 FCC Rcd 8259 (2011).

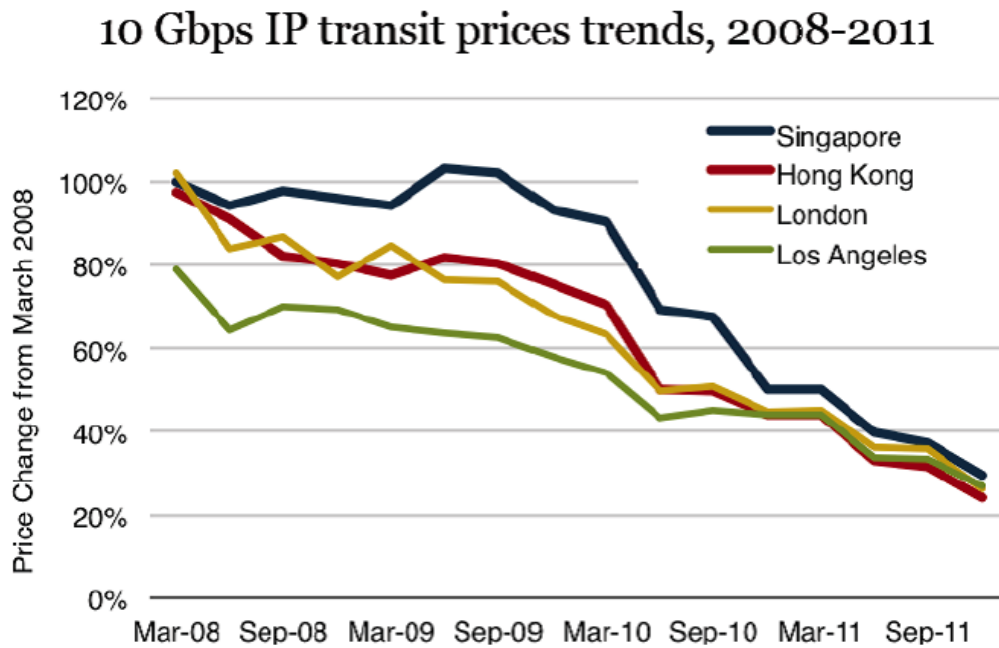
¹⁶ Comments of TechFreedom, *supra* note 1.

¹⁷ National Broadband Plan, *supra* note 5, at xi. See also chapters 10-16. And see Robert E. Litan and Hal Singer, *THE NEED FOR SPEED: A NEW FRAMEWORK FOR TELECOMMUNICATIONS POLICY IN THE 21ST CENTURY* (Brookings Institution Press 2013).

¹⁸ *Id.*, at 16-17.



(Hundt & Levin, *supra* note 3, Figure 2.1, p. 105)



(Hundt & Levin, *supra* note 3, Figure 2.2, p. 106)

Deflating the Myths of IP Transition

High-speed, widely accessible and affordable broadband provides the ecosystem of development and deployment at the heart of Big Bang Disruption. All-IP networks will vastly expand the possibilities of the next generation of cloud services like Google, Facebook, Twitter and Salesforce. These services and others that will follow will be superior in ways both easily imaginable (instant, more reliable interaction with richer media like video, streaming presentations, and more robust tools) but also in ways that we cannot yet imagine. Developers will aim higher in their products and services confident that consumers will be able to make use of them.

While it is impossible to predict precisely what new applications, products and services will emerge from the primordial ooze of next generation broadband networks, we can say with confidence that investments in such networks will more than pay for themselves in the form of new economic activity.

In short, the IP Transition will accelerate the ongoing transformation of our digital experiences that could be as revolutionary as the introduction of the Internet itself.¹⁹

Many commenters missed this essential point. The IP Transition's discontents fall into four main—and largely predictable—camps:

1. **CLECs with vested economic interests** bent on forcing the ILECs to maintain TDM networks despite the fact that they are worse on every strategic dimension. Though they try unconvincingly to shoehorn their objections into legitimate public interest concerns, their real motivation is straightforward rent-seeking. They would rather spend their energy slowing the inevitable than adapting to a better technology that consumers already overwhelmingly, and wisely, prefer.²⁰
2. **Self-styled public interest groups** who express vague and hypothetical concerns about competition in the post-transition period. These warmed-over and largely manufactured, purely theoretical problems are irrelevant to AT&T's petition for trials—indeed, those trials would help clarify which of these concerns are real and which mere phantasms.²¹

¹⁹ See Harold Feld, *Shutting Down the Phone System Gets Real: The Implications of AT&T Upgrading to an All IP Network*, Public Knowledge (November 13, 2012), available at <http://publicknowledge.org/blog/shutting-down-phone-system-gets-real-implicat> (“I believe AT&T’s announcement last week about its plans to upgrade its network and replace its rural copper lines with wireless is the single most important development in telecom since passage of the Telecommunications Act of 1996. It impacts just about every aspect of wireline and wireless policy.”).

²⁰ See Comments of Bandwidth.com, Inc., *In re AT&T Petition*, GN Docket No. 12-353, 4, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113709>; Comments of Cbeyond, Earthlink, Integra, Level 3, and TW Telecom, *In re AT&T Petition*, GN Docket No. 12-353, 6-15, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113656>; Comments of Comptel, *In re AT&T Petition*, GN Docket No. 12-353, 17-18, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113657>; Comments of General Communications, Inc., *In re AT&T Petition*, GN Docket No. 12-353, 5, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113626>; Comments of Granite Telecommunications LLC, *In re AT&T Petition*, GN Docket No. 12-353, 12, 20, 37-44, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113684>; Comments of TelePacific Communications, *In re AT&T Petition*, GN Docket No. 12-353, 9-11, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113703>.

²¹ See AARP Comments, *supra* note 11, at 2, 23-24; Comments of Free Press, *In re AT&T Petition*, GN Docket No. 12-353, 5-7, 13-23, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113670>; Comments of Public Knowledge, *In re AT&T Petition*, GN Docket No. 12-353, 17-19, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113562>.

3. **Mobile and other special access customers** who are not saddled with legacy TDM networks and who seek to rely on FCC intervention to manipulate pricing for access to those networks for backhaul and other middle-mile transit. They see the IP Transition as harmful to their own interests in leveling the playing field for ILEC competitors. But their true motivation is to slow the inevitable transition to “Internet Everywhere” networks that would force them to make long-deferred investments in their own obsolete infrastructure.²²
4. **State Public Utilities Commissions** who argue against federal preemption in a desperate attempt to maintain their own jurisdiction and who use public safety and consumer protection as human shields to defend their true—parochial and bureaucratic—self-interests.²³

These commenters together promote a series of self-interested fallacies, hoping to confuse the agency into believing the transition to Internet Everywhere is something far more complex and controversial than it actually is. Their real hope is simply to slow down a process that is inevitable, buying more time to resist the forces requiring their own adaptation—a common symptom among weaker industry participants and regulators facing a big bang disruption. The FCC should reject each of these myths outright:

- **Myth:** Ensuring effective interconnection requires a special legal regime to mandate interconnection among competitors.
- **Reality:** Market forces and antitrust (looming behind all market transactions) work so effectively that, as the OECD has found, even without special regulations, over 99% of interconnection agreements in IP world are settlement-free and often done on a handshake basis).²⁴
- **Myth:** Requiring the maintenance of, and backwards compatibility for, TDM networks is

²² See Comments of Sprint Nextel, *In re* AT&T Petition, GN Docket No. 12-353, 6-7, 19-20, 29-30, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113602>; Comments of T-Mobile USA, Inc., *In re* AT&T Petition, GN Docket No. 12-353, 9-11, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113702>.

²³ See Comments of the National Association of Regulatory Utility Commissioners, *In re* AT&T Petition, GN Docket No. 12-353, 5-20 (“NARUC Comments”), available at <http://apps.fcc.gov/ecfs/document/view?id=7022113735>; Initial Comments of the National Association of State Utility Consumer Advocates, *In re* AT&T Petition, GN Docket No. 12-353, 15-19, 22-26, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113102>; Comments of The Indiana Utility Regulatory Commission, *In re* AT&T Petition, GN Docket No. 12-353, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113494>; Comments of The Pennsylvania Public Utility Commission, *In re* AT&T Petition, GN Docket No. 12-353, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113573>; Comments of the California Public Utilities Commission and the People of the State of California, *In re* AT&T Petition, GN Docket No. 12-353, 9-11, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113717>; Comments of the Massachusetts Department of Telecommunications and Cable, *In re* AT&T Petition, GN Docket No. 12-353, available at <http://apps.fcc.gov/ecfs/document/view?id=7022113756>; Reply Comments of the New Jersey Board of Public Utilities, *In re* AT&T Petition, GN Docket No. 12-353, available at <http://apps.fcc.gov/ecfs/document/view?id=7022123788>.

²⁴ OECD, Committee for Information, Computer and Information Policy, Internet Traffic Exchange: Market Developments and Policy Changes, 3 (June, 2011), available at [http://search.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2011\)2/FINAL&docLanguage=En](http://search.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2011)2/FINAL&docLanguage=En). See also The Internet Society, *Proposals for New Interconnection Model Comes Up Short*, 4, available at <http://www.internetsociety.org/sites/default/files/Internet%20Interconnections%20Proposals%20For%20New%20Interconnection%20Model%20Comes%20Up%20Short.pdf>.

both valuable and inexpensive.

- **Reality:** Mandating TDM maintenance and compatibility unnecessarily limits investment in, and the potential of, technologically-superior IP networks.
- **Myth:** The FCC has the authority and the obligation to port Title II regulations over to IP networks.
- **Reality:** Congress has not granted the FCC the authority to regulate these networks, and there is no sense in imposing costly regulations intended for a completely different technology, and a completely different competitive environment, on IP networks.
- **Myth:** Technological neutrality requires imposing the identical regulations (particularly Sections 251 and 252) on all networks, regardless of the technology employed.
- **Reality:** If technological neutrality means anything, it means that the intended aims of regulation should apply to identical functions, regardless of the technology employed. But IP networks do not offer identical functions to switched networks, and different competitive conditions mean that identical rules are not required to, and will not in fact, ensure identical results.
- **Myth:** Unless the FCC has Title II jurisdiction over IP networks, the Federal government will be powerless to protect consumers.
- **Reality:** The FCC can exercise its Title I authority over IP networks to protect public safety, while the Federal Trade Commission already has authority to address concerns about market power and consumer protection under Section 5 of the FTC Act, which prohibits unfair and deceptive acts and practices and allows the FTC to enforce the antitrust laws, except against common carriers.
- **Myth:** No major regulatory changes are needed to ensure that ILECs complete the IP Transition for all customers.
- **Reality:** Faced with the needless and burdensome constraints of legacy regulation, the IP Transition will occur more slowly, less effectively and be less widespread unless the regulatory mindset borne of the now-defunct competitive environment of the last few decades is significantly shifted.

Commenters offering up these objections either don't see, or simply ignore the inconvenient reality of, the fundamental transformation in communications already in progress. This technological shift is changing the nature of strategy and competition. Consumers, for example, now enjoy what Downes and Nunes call "near perfect market information"—the ability to compare price, quality, service, specifications on any product or service and choose the best from among many competitive choices. And unlike the ILEC's once-protected legacy networks, IP network competition—as well as the competition to offer the services that run on top of it—is open to all, and competition abounds.

More to the point, consumers have demonstrated their ability to use social networks and other advanced communications technology to enforce market discipline on providers more efficiently and more effectively than regulators—particularly regulators trying to apply the only toolkit the law affords them: Title II of the Communications Act.

But Title II regulations are hard-coded for both the technology and the artificial competitive environment of a dying TDM universe. They should not, and legally may not, be applied “as is” to IP networks.²⁵ Nor can they simply be “adapted” to a new and more dynamic ecosystem.

While market forces may not always ensure the perfect alignment of industry conduct with the best interests of consumers, it does not follow that any particular regulatory solution—least of all regulation intended for entirely different circumstances—is preferable.²⁶ In the face of significant non government constraints, the case for blunt, prophylactic regulations like interconnection mandates to protect against future problems that may never arise is extremely weak.

Marketplace and reputational incentives drive interconnection and consumer protections in the market, and networks have little incentive to harm their own customers. These forces are bolstered by various multistakeholder processes that continue to evolve to regulate industry practices and to supplement direct company-to-company dispute resolution.²⁷ At the same time, the FCC retains authority under Title I of the Communications Act to regulate for public safety, and antitrust and consumer protection laws govern IP services precisely because they are not regulated as common carriers (which are excluded from the FTC’s otherwise general jurisdiction over the economy).²⁸

Finally, if significant issues do arise that escape these multiple layers of regulatory and governance constraints, Congress can of course enact legislation appropriately targeted to address clear consumer harms. But narrowly tailored legislation from Congress after the IP Transition has evolved of its own accord is the proper mechanism for addressing such issues—not broad, prophylactic regulation from the FCC adapted from previous legislation targeted at entirely different circumstances.

Recognition of these constraints does not inform the approach suggested by comments from industry participants already struggling to make the transition. Instead of adapting, they urge the FCC to protect their privileged positions in the PSTN world by bringing the dead weight of old regulatory baggage to new markets.

In every major industry transformation midwived by disruptive technologies, those trying to slow, skew or stall the transformation always rely on the law as their weapon of final resort. This has

²⁵ TechFreedom Comments, *supra* note 1, at 5-8.

²⁶ See Harold Demsetz, *Information and Efficiency: Another Viewpoint*, 12 J. L. & ECON. 1, 1–3 (1969) (“The view that now pervades much public policy economics implicitly presents the relevant choice as between an ideal norm and an existing ‘imperfect’ institutional arrangement. This *nirvana* approach differs considerably from a *comparative institution* approach in which the relevant choice is between alternative real institutional arrangements.”).

²⁷ Most notable among these is the Broadband Internet Technical Advisory Group (BITAG), “a technical advisory group to discuss and opine on technical issues pertaining to the operation of the Internet, as a means of bringing transparency and clarity to network management processes as well as the interaction among networks, applications, devices and content.” BITAG History, http://www.bitag.org/bitag_organization.php?action=history (last visited February 25, 2013).

²⁸ See Federal Trade Commission, Broadband Connectivity Competition Policy, 3 (2007), *available at* <http://www.ftc.gov/reports/broadband/v070000report.pdf> (“[FTC] jurisdiction [over broadband Internet access services] had once been regarded as limited to the extent that the FTC’s general enforcement authority under the FTC Act did not extend to entities that were ‘common carriers’ under the Communications Act. The regulatory and judicial decisions at issue, however, confirmed that the larger categories of broadband Internet access services, as information services, are not exempt from FTC enforcement of the FTC Act.”).

already happened in the entertainment industry, where incumbents have struggled to make the leap to digital distribution. It happened in the DTV transition. It has happened in proceedings to abandon little- or unused-sections of railroad.²⁹ It even continues to happen in the process of the most basic modernization of POTS.³⁰ Such efforts are as predictable as they are imprudent.

Preemption

As TechFreedom said in our initial comments in this proceeding, the FCC should eliminate legacy regulations that require ILECs to maintain their TDM networks.³¹ Removing the burden of operating obsolete technology will allow consumers to enjoy the benefits of the IP Transition as soon as possible.

The FCC has undisputed authority to forbear from applying sections of the Communications Act when doing so “will promote competitive market conditions.”³² This same authority clearly gives it power to forbear from applying sections of the Act that hinder or deter the IP Transition. But the Communications Act is only one small piece of the equation. Many of the most stringent regulations requiring ILECs to continue to operate their TDM networks, even after replacement networks have been constructed, rest not on federal law but on the states’ Carrier of Last Resort (COLR) requirements.

The FCC’s ability to preempt these state regulations was a major topic of controversy in the first round of comments. A number of commenters (mostly state public utility commissions) claimed that the FCC has no authority to preempt COLR requirements.³³ However, a thorough examination of the Communications Act and federal-state preemption law reveals a different answer: the FCC may indeed preempt state regulations when they conflict with a federal policy.

The debate hinges on Section 2(b) of the Communications Act, which defines the limits of the FCC’s jurisdiction and specifically excludes “charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier.”³⁴ States cite this provision in opposing preemption of COLR mandates, but COLR requirements do not affect only “intrastate communication.” They also have a considerable impact on interstate communications, which is squarely within the jurisdiction of the FCC. COLR regulations prevent companies from investing as much money as they would like (and from which consumers would benefit) into deploying IP networks because they have to maintain their TDM networks. Since many of these ILECs operate in multiple states, COLR requirements in one state may prevent them from investing in IP networks in other states. Additionally, TDM facilities are

²⁹ See, e.g., *Redden v. ICC*, 956 F.2d 302 (D.C. Cir. 1992); SURFACE TRANSPORTATION BOARD FY 2011 ANNUAL REPORT, available at http://www.stb.dot.gov/stb/docs/AnnualReports/STB_FY2011_Annual_Report.pdf.

³⁰ Associated Press, *Woman Paid Thousands to Rent Rotary Phone*, USA Today, Sept. 14, 2006, available at http://usatoday30.usatoday.com/news/offbeat/2006-09-14-phone_x.htm (reporting on a woman who was still renting a rotary phone from the phone company for \$10 a month until 2006, and had totaled \$14,000 in rental fees over 42 years.)

³¹ Comments of TechFreedom, *supra* note 1.

³² 47 U.S.C. § 160 (2006).

³³ See, e.g., Comments of Pennsylvania Public Utility Commission, Comments of NATOA, NACo, NLC, USCM, Comments of Federal-State Joint Board on Universal Service, and Comments of National Association of Regulatory Utility Commissioners, *In re AT&T Petition*, GN Docket No. 12-353.

³⁴ 47 U.S.C. § 253(b) (2006).

used to carry both intrastate and interstate services, so COLR requirements directly impact interstate services on these networks. Section 2(b) is simply a red herring.

The states' COLR requirements also impair the goals of federal universal service policy. As fewer and fewer customers subscribe to services delivered over TDM networks, it has become increasingly expensive, on a per-customer basis, to provide services over TDM networks to remote areas.³⁵ The capital devoted to maintaining those obsolete networks could instead be used to deploy broadband services in these very same areas. COLR requirements also require only ILECs to serve all of the customers in an area when there are now other services, such as wireless and cable, that can accomplish the same goal. This makes it difficult for ILECs to compete with new entrants and reduces their incentives to invest because ILECs' costs are artificially high—and only increasing.

All the Commission needs to justify preemption of state COLR requirements is to establish, as clear Federal policy, the goal of making the IP Transition a priority by clearing regulatory barriers. The FCC has already started down this path. The Commission's National Broadband Plan acknowledged that "requiring an incumbent to maintain two networks—one copper and one fiber—would be costly, possibly inefficient and reduce the incentive for incumbents to deploy fiber facilities."³⁶ Thus the Commission has conceded the key premise on which preemption must rest: state COLR requirements deter investment in IP networks.

Under the time-tested doctrine of conflict preemption, when it is impossible to comply with both state and federal laws, federal law prevails.³⁷ The FCC has repeatedly asserted its ability to preempt state regulations, such as in a 2010 Order, citing numerous D.C. Circuit cases, saying that, "[w]here state regulation conflicts with a federal regulatory objective, and that conflict impinges upon the Commission's exercise of its own lawful authority, the Commission may preempt."³⁸ Executive Order 13132 lays out guidelines for federal agencies implementing policies that may preempt state laws, and says that, "Where a Federal statute does not preempt State law . . . agencies shall construe any authorization in the statute for the issuance of regulations as authorizing preemption of State law by rulemaking only when the exercise of State authority directly conflicts with the exercise of Federal authority under the Federal statute or there is clear evidence to conclude that the Congress intended the agency to have the authority to preempt State law."³⁹

³⁵ National Broadband Plan, *supra* note 5, at 59 ("Consumers benefit from the options that broadband provides, such as Voice over internet Protocol. But as customers leave the PSTN, the typical cost per line for Plain Old Telephone Service (POTS) increases, given the high fixed costs of providing such service. Between 2003 and 2009, the average cost per line increased almost 20 percent."). See also Fourteenth Report and Order, Federal-State Joint Board on Universal Service, 16 F.C.C.R. 11244, 11326, ¶ 207 (May 23, 2001).

³⁶ See National Broadband Plan, *supra* note 5, at 49.

³⁷ *Gibbons v. Ogden*, 22 U.S. 1 (1824).

³⁸ *In re* National Association of Regulatory Utility Commissioners Petition for Clarification or Declaratory Ruling that No FCC Order or Rule Limits State Authority to Collect Broadband Data, WC Docket No. 09-193, Memorandum Opinion and Order, 25 F.C.C.R. 5051, ¶ 6 (April 26, 2010), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-70A1.pdf.

³⁹ Executive Order 13132, Fed. Reg. 43, 255, August 10, 1999, Sec. 4.

It is the FCC's duty to "preserve and advance universal service,"⁴⁰ and that duty allows the Commission to conduct a rulemaking to promote the IP Transition in the name of universal service. Such a rulemaking should build upon the findings in the National Broadband Plan by forbearing from certain sections of the Communications Act that make it difficult for ILECs to retire their TDM networks, and advocate that all such regulations should be retired to promote investment in broadband networks. If the FCC were to conduct such a rulemaking, state COLR requirements would directly conflict with the FCC's authority to promote universal service, and thus the FCC could preempt state COLR requirements.

Additionally, Sections 253(b) & (d) of the Communications Act makes it clear that "Congress intended the agency to have the authority to preempt State law" in this space—precisely as Executive Order 13132 contemplates. The statute requires that state requirements "to preserve and advance universal service"⁴¹ must comply with Section 254 of the Act; if they don't, it allows the FCC to "preempt the enforcement of such statute, regulation, or legal requirement to the extent necessary to correct such violation or inconsistency."⁴² Section 254 requires that state regulations may not be "inconsistent with the Commission's rules to preserve and advance universal service."⁴³ Thus, if state and federal universal service regulations conflict, the FCC may preempt state regulations.

The Eighth Circuit's holding in *Minnesota Public Utilities Commission v. F.C.C.* further supports the FCC's preemption of state COLR obligations. The appellate court upheld the FCC's preemption of state VoIP regulations, noting that "[c]ompetition and deregulation are valid federal interests the FCC may protect through preemption of state regulation."⁴⁴ In the IP Transition, promoting competition and deregulation would be two of the FCC's primary goals, and eliminating state COLR requirements would help it achieve both.

The National Association of Regulatory Utility Commissioners (NARUC) also claims that the FCC does not have the authority to preempt state regulations on VoIP services,⁴⁵ but its analysis is deeply flawed. Among other things, NARUC's comments misapply the preemption analysis laid out in the FCC's 2004 Vonage Order.⁴⁶ According to NARUC's interpretation of the Order, the FCC may preempt state VoIP regulations only "(1) to the extent necessary to avoid a conflict between federal law and state law; AND (2) where the intrastate telecommunications service is inseverable from the interstate service component."⁴⁷ But the Order says no such thing. In fact, it makes clear that inseverability presents *an alternate basis* for preemption, regardless of the existence of another

⁴⁰ 47 U.S.C. § 253(f) (2006).

⁴¹ 47 U.S.C. § 253(b) (2006).

⁴² 47 U.S.C. § 253(d) (2006).

⁴³ 47 U.S.C. § 254(f) (2006).

⁴⁴ *Minnesota Public Utilities Comm'n. v. F.C.C.*, 483 F.3d 570, 580 (8th Cir. 2007).

⁴⁵ NARUC Comments, *supra* note 23.

⁴⁶ *In re Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, WC Docket No. 03- 211, (November. 12, 2004), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-267A1.doc ("Vonage Order").

⁴⁷ NARUC Comments, *supra* note 23, at 17 (emphasis added).

source of federal-state conflict. As the FCC notes, citing to the Supreme Court's *Louisiana Public Service Commission* decision,⁴⁸

[T]he “critical question in any pre-emption analysis is always whether Congress intended that federal regulation supersede state law.” . . . [F]ederal law and policy preempt state action . . . when there is outright or actual conflict between federal and state law . . . ; where the state law stands as an obstacle to the accomplishment and execution of the full objectives of Congress . . . ; [and] where there is implicit in federal law a barrier to state regulation Additionally, the Supreme Court has held that preemption may result not only from action taken by Congress but also from a federal agency action that is within the scope of the agency's congressionally delegated authority.⁴⁹

Although inseverability was the basis for the FCC's preemption decision in the Vonage Order, nothing in the Order diminishes the independent availability of federal-state conflicts—both explicit and implicit—as a basis for preemption. Moreover, when properly understood, the Vonage test (and the Supreme Court in *Louisiana Public Service Commission*), also makes clear that the FCC *can* in fact preempt state IP network regulations, contrary to NARUC's comments, on the basis of “[a] bare allegation that a State action ‘frustrates’ a federal goal.”⁵⁰

The FCC has, since 2005, expressly refrained from classifying VoIP as either an information service or a telecommunications service.⁵¹ The Commission realized that VoIP services do not need the full slate of Title II regulations to operate effectively, but has nevertheless managed to impose certain public safety obligations on VoIP providers by not actually branding them with an ill-fitting regulatory classification. The FCC's treatment of VoIP is actually an acknowledgement that services over IP networks do not manifest the same basis for regulation as switched networks, thus creating conflict with state regulations premised on the conclusion that they do. If the Commission were to come out and say that it reached this decision because such regulations are outdated, overly burdensome and unnecessary in a competitive voice market, there would be an even clearer conflict between federal and state law on VoIP regulation.

Additionally, NARUC's comments twist the FCC's language from a 2006 Order to suit its ends. Read in full, the Order actually derails NARUC's argument. Two years after the Vonage Order, the FCC said that “we recognize that some interconnected VoIP providers do not currently have the ability to identify whether customer calls are interstate,”⁵² and thus, “it would be reasonable for us to treat

⁴⁸ *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355 (1986)

⁴⁹ Vonage Order, *supra* note 48, at 11-12, n. 66 (*citing* *Id.* at 368-69).

⁵⁰ NARUC Comments, *supra* note 23 at 19.

⁵¹ *In re* IP-Enabled Services, E911 Requirements for IP-Enabled Service Providers, WC Docket Nos. 04-36 & 05-196, First Report and Order and Notice of Proposed Rulemaking, 20 F.C.C.R. 10245, ¶ 22 (June 3, 2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-116A1.pdf.

⁵² *See In re* Universal Service Contribution Methodology, WC Docket 06-122; CC Dockets 96-45, 98-171, 90-571, 92-237; CC Dockets 99-200, 95-116, 98-170; Docket 04-36, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518, ¶ 56 (June 27, 2006), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-94A1.pdf. (USC Methodology Order”).

the interconnected VoIP traffic as 100% interstate for USF purposes.”⁵³ NARUC’s comments misconstrue the hypothetical language of that Order which states that, “to the extent that an interconnected VoIP provider develops the capability to track the jurisdictional confines of customer calls . . . [it] would no longer qualify for the preemptive effects of our Vonage Order and would be subject to state regulation.”⁵⁴ NARUC’s comments leave out the conditional first part of the requirement for state regulation, and acts as if all VoIP providers can actually separate the interstate and intrastate portions of their service, while offering no evidence to support this claim.⁵⁵ But where, as is the case with IP networks, the distinction between interstate and interstate traffic is not pre-determined, nor consistent, nor in the control of the network (as opposed to the end user), IP network providers “do not currently have the ability to identify whether [traffic] is interstate traffic.”⁵⁶

While the FCC clearly has authority to preempt state COLR and VoIP regulations, the agency likely could do so only if it were to lay out clear federal goals regarding both. The Commission needs to make the retirement of TDM networks an official priority in order to promote the deployment of nationwide IP services. It must also make it clear that VoIP should not be regulated as a telecommunications service by anyone. If the FCC takes these actions, it is difficult to see how a court would not uphold the FCC’s preemption of state COLR and VoIP regulations.

Interconnection

Multiple commenters in this proceeding urged the FCC to impose legacy interconnection requirements on IP networks. Existing interconnection rules on the PSTN network were formulated when the Bell System had a true, regulated monopoly. Those regulations are the source of much of the waste, fraud and unnecessary cost associated with continuing to maintain the legacy POTS networks, as evidenced by, for example, FCC reforms of intercarrier compensation in the face of traffic pumping, phantom traffic and other abuses.⁵⁷ In the IP world, by contrast, absent any regulation network operators worldwide have had no difficulty negotiating interconnection agreements. Indeed, peering has become so commonplace that, as the OECD has pointed out, “the terms and conditions of the Internet interconnection model are so generally agreed upon that 99.5% of interconnection agreements are concluded without a written contract.”⁵⁸

Simply put, there is no evidence that anything is broken in the IP networking world, let alone something so broken that only regulated pricing or other mandates could fix it. Those asking the FCC to invent an IP interconnection regulatory scheme may talk about the public interest, but they

⁵³ *Id.* at ¶ 53.

⁵⁴ *Id.* at ¶ 56.

⁵⁵ See NARUC Comments, *supra* note 23, at 19.

⁵⁶ USC Methodology Order, *supra* note 52.

⁵⁷ Report and Order and Further Notice of Proposed Rulemaking, *In re* Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92 (November 18, 2011), available at <http://www.fcc.gov/document/fcc-releases-connect-america-fund-order-reforms-usficc-broadband>.

⁵⁸ OECD, Committee for Information, Computer and Information Policy, Internet Traffic Exchange: Market Developments and Policy Changes, 3 (June, 2011), available at [http://search.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2011\)2/FINAL&docLanguage=En](http://search.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2011)2/FINAL&docLanguage=En).

are rent-seekers pure and simple: They are carriers seeking below-market rates for backhaul and CLECs looking to protect their subsidized business model in new networks that are already highly competitive. The FCC should avoid “prophylactic” regulations for problems that, as even these commenters admit, are speculative at this point.

The reality of the interconnection market is that, despite what some may argue, the major ISPs already have strong incentives to interconnect. If they didn’t, we never would have seen the Internet video market take off as it has in the last few years. ISPs’ customers demand access to streaming video content from sites like Netflix and Amazon, and they would be up in arms if access to that content were suddenly taken away from them due to an interconnection dispute. ISPs know that streaming video is the primary reason that their customers are willing to pay for high-speed broadband connections at home, so they have strong incentives to deliver what their customers want. And even where disputes have arisen (around the complexities of peering relationships and the distinction between settlement-free transit vendors and paid-peering CDNs, for example⁵⁹), they are contract disputes between large commercial players over *the specific terms* of interconnection, not *whether* it will be available. Moreover, demand for streaming video has become so strong that Netflix, having established its own CDN, can now sidestep such disputes and pressure ISPs to accede to its peering demands by threatening to withhold new content or services. In other words, it has been *content providers*, not ISPs, that have threatened to withhold traffic.⁶⁰ The newfound market power of content providers like Netflix—as well as increasing intermodal competition—may just upend the weathered assumption that ISPs hold all of the bargaining power in interconnection negotiations.

Rare as denials of interconnection are, even rarer (and nearly non-existent) are interconnection denials actually noticed by the consumer—because even if there is a denial of a direct peering connection, content providers can generally find a way to get traffic to the public through settlement-free transit provider networks. Customers have no idea whether they are receiving content through direct or indirect connections; they care only about having access to that content. For there to be actual harm justifying government intervention, a mere denial of interconnection is not enough; there must be *substantial foreclosure*. But in a world where ISPs need interconnection with both transit networks (to preserve both the flow of traffic originating with their own customers, as well as access to content not available through direct peering arrangements) as well as CDNs to satisfy consumer demands, such substantial foreclosure is unlikely to occur, even if a particular source of traffic were refused interconnection. Were such substantial foreclosure to occur, moreover, it would likely fall squarely within the purview of antitrust laws.

⁵⁹ See, e.g., Marguerite Reardon, *Understanding the Level 3-Comcast spat (FAQ)*, C-Net (November 30, 2010), available at http://news.cnet.com/8301-30686_3-20024197-266.html.

⁶⁰ See, e.g., Betsy Isaacson, *Netflix Says 3D and ‘Super-HD’ Movies Are Just Around The Corner--But Only For Some Customers*, Huffington Post (January 9, 2013), available at http://www.huffingtonpost.com/2013/01/09/netflix-3d-movies_n_2441394.html; Fred Campbell, *Netflix Blocking Internet Access to HD Movies*, The Technology Liberation Front (January 17, 2013), available at <http://techliberation.com/2013/01/17/netflix-blocking-internet-access-to-hd-movies/>; Fred Campbell, *What Does Netflix’s Decision to Block Internet Content Tell Us About Internet Policy?*, The Technology Liberation Front (January 23, 2013), available at <http://techliberation.com/2013/01/23/what-does-netflixs-decision-to-block-internet-content-tell-us-about-internet-policy/>.

Mandating interconnection essentially means declaring any particular refusal to interconnect to be *per se* illegal. But as noted above, a refusal to interconnect does not necessarily directly harm consumers, so it makes little sense to make such a refusal illegal *per se*. Moreover, in the emerging IP world, with uncertain possibilities for congestion (and the commensurate need for last-mile network management), heightened pricing disputes between infrastructure providers (as in the Comcast/Level 3 dispute), and the need to guarantee sufficient return on infrastructure investment, procompetitive justifications for certain interconnection refusals abound. Far more sensible would be to treat refusals to interconnect as refusals to deal under Section 2 of the Sherman Act, finding liability only where such refusals could not be explained except as efforts to preserve long-term monopoly power, and procompetitive justifications didn't outweigh net foreclosure effects.

While the Supreme Court's *Trinko*⁶¹ and *LinkLine*⁶² decisions underscored that there are very few exceptions to the rule that even a monopoly has no duty to deal with competitors, a basis for antitrust liability still remains.⁶³ But the economics underlying these decisions does indeed—appropriately—suggest that such determinations should be rare. And the common refrain that *Trinko* and *LinkLine* render refusal to deal cases almost impossible against regulated entities would (and should) be far less likely to apply if, as we suggest, the FCC refrains from mandating interconnection or otherwise regulating the business practices of IP networks.

Despite the FCC's claims in other contexts that prophylactic rules aimed at preventing speculative harms impose little cost (as in the agency's Open Internet Order, where the FCC claimed the rules would impose little cost because "in large part . . . the rules appear to be consistent with current industry practices"⁶⁴), here the entire point is that specific industry practices in the coming "Internet Everywhere" world are yet unknown—and thus cannot be set in regulatory stone. Moreover, the true cost to consumers, in stifling the disruptive shift to such a world, is, as discussed above, far from insignificant. As law professor Christopher Yoo has explained:

Concerns about reducing investment incentives carry little weight when last-mile competition is infeasible, as was arguably the case when interconnection and standardization were mandated with respect to CPE, long distance, and enhanced services. They are paramount when entry by new last-mile providers is ongoing and other last-mile technologies are waiting in the wings. Under these circumstances, regulation imposed to curb market concentration can turn into the cause, rather than the consequence, of market failure.⁶⁵

Commenters have singled out VoIP interconnection as an issue separate from IP interconnection generally, but there is no legitimate basis for the continued special treatment of voice telephony. While for many years traditional voice communication has been viewed as "special" (its status giving rise to the very regulations under Title II of the Communications Act that are at issue in this

⁶¹ *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 399 (2004).

⁶² *Pacific Bell Tel. Co. v. LinkLine Communications, Inc.*, 555 U.S. 438 (2009).

⁶³ Steven C. Salop, *Refusals to Deal and Price Squeezes By an Unregulated, Vertically Integrated Monopolist*, 76 ANTITRUST L.J. 709 (2010).

⁶⁴ *In re Preserving the Open Internet; Broadband Industry Practices, Report and Order*, 25 F.C.C.R. 17905, 5 (Dec. 21, 2010).

⁶⁵ Christopher S. Yoo, *Beyond Network Neutrality*, 19 HARV. J. L. & PUB. POL'Y 1, 10 (2005).

proceeding), the world of communications has long since evolved past the point when basic telephones connected by switched copper wires were the only way to connect people over long distances. Today, voice is just another app on the IP network, and it should be treated no differently than video, social networks or any other app. Today consumers connect with each in countless ways, and IP networks have no incentive or ability to impair voice communications by limiting interconnection.

Conclusion

The FCC should grant AT&T and NTCA's modest petitions and should not be swayed by cynical efforts by self-interested intervenors to derail the consumer-welfare-enhancing shift to an all-IP network. There is no legitimate reason to burden this disruptive new technology with an outdated and inapplicable regulatory framework, least of all in the context of the minimal experiments at issue in this docket.

Instead, the FCC should reaffirm the National Broadband Plan's commitment to accelerate the transition away from circuit-switched networks to native IP. Doing so requires not that the FCC and state regulators erect regulatory barriers, however well-meaning, to protect consumers from harms that have not materialized and are unlikely ever to do so, but rather that it forebear from the unthinking application of legacy regulations simply because they are there. Chairman Genachowski's remark that "the ongoing changes in our nation's communications networks require a hard look at many rules that were written for a different technological and market landscape"⁶⁶ contains the essential wisdom necessary for the FCC to ensure that the IP Transition lives up to its remarkable potential.

⁶⁶ *FCC Chairman Announces Formation of "Technology Transitions Policy Task Force"*, FCC (Dec. 10, 2012), <http://www.fcc.gov/document/fcc-chairman-announces-technology-transitions-policy-task-force>.