Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
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 AT&T

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INTRODUCTION

AT&T respectfully submits these opening comments in response to the Commission's December 14, 2012 Public Notice regarding two recently filed petitions concerning the TDM-to-IP transition: one filed by AT&T itself, and the other by the National Telecommunications Cooperative Association.[1] AT&T will not restate the arguments it raised in its own petition; instead, it looks forward to discussing these issues further in its reply comments, in response to the views of other interested parties.

In these brief opening comments, AT&T will focus on two points. First, AT&T urges the Commission to heed the call of the *National Broadband Plan* and take all appropriate measures to expedite the TDM-to-IP transition. Although that transition is well underway, as consumers increasingly abandon traditional wireline telecommunications services and adopt next-generation alternatives, the steps that the Commission takes now will greatly influence the timetable on which IP-enabled services become available to *all* Americans. The Commission should reject proposals to bog down the TDM-to-IP transition with interminable and abstract deliberations about the appropriate regulatory end-state at the conclusion of the transition. Instead, the Commission should promptly begin the limited regulatory trials proposed in AT&T's petition and use the real-world data generated by those trials to inform the Commission's approach to broader reforms.

Second, AT&T provides initial comments on NTCA's petition. AT&T commends NTCA for recognizing the importance of regulatory reform, although it disagrees with NTCA's

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[1] *See* Public Notice, Pleading Cycle Established on AT&T and NTCA Petitions, GN Docket No. 12-353 (rel. Dec. 14, 2012) ("Public Notice"); AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, GN Docket No. 12-353 (filed Nov. 7, 2012) ("AT&T Petition"); 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 (filed Nov. 19, 2012) ("NTCA Petition").

proposal to "reassert[]" the legacy "regulatory foundation" while "examin[ing] each brick" of that foundation in the abstract. NTCA Petition at ii. AT&T also disagrees with NTCA's substantive proposal for regulation of IP-to-IP interconnection. As AT&T has explained, such regulation would be needless, counterproductive, and beyond the Commission's statutory authority.

DISCUSSION

I. THE COMMISSION CAN AND SHOULD ACT PROMPTLY TO CONDUCT THE REGULATORY TRIALS DESCRIBED IN AT&T'S PETITION.

As AT&T has previously discussed, the ongoing TDM-to-IP transition is a transformational revolution in telecommunications and an unprecedented boon for consumers. Providers are not simply infusing new technologies into their legacy networks, even though they may repurpose some piece parts of those networks (such as last-mile copper sub-loop facilities used in FTTN architectures). Rather, providers are *replacing* legacy networks and their associated services with new facilities and wholly new services that make inherited regulatory classifications obsolete.

The end result will be the culmination of a twenty-year trend toward technological convergence. Whereas providers historically offered discrete communications services (such as video or voice) over separate single-purpose "cable" or "telephone" networks, all such services will now be offered as higher-layer applications running over unified broadband IP platforms. Those IP networks are far more versatile and efficient than single-purpose networks like the TDM-based PSTN. And this IP-based technological convergence will intensify competition at all layers of the ecosystem, both among facilities-based providers of rival broadband platforms and among independent providers of higher-layer IP services. These consumer benefits are already manifest in areas where next-generation networks are now available: consumers are

voting with their feet by abandoning wireline telecommunications services en masse. Indeed, fewer than 30% of residential households in AT&T's 22-state ILEC region still subscribe to an ILEC POTS service.[2]

The *National Broadband Plan* aptly characterizes the broadband IP transition as "*the* great infrastructure challenge of the early 21st century,"[3] and AT&T is playing a leading role in meeting that challenge by launching a massive $14 billion investment project.[4] Yet the TDM-to-IP revolution necessitates an equally fundamental transformation of the legacy regulatory framework. Today's rules were designed for a voice-centric world in which ILECs owned 99% of access lines, and there is no rational basis for sustaining them in a world where ILECs have rapidly declining minority market shares and voice is becoming just one application among many riding over converged, data-centric networks. Indeed, legacy regulations affirmatively harm consumers because, left intact, they would delay the transition to an all-IP regime and inefficiently force ILECs to invest scarce capital in wireline services that consumers are increasingly abandoning in favor of unregulated alternatives. AT&T USTelecom Reply Comments at 14. As the *National Broadband Plan* explained, legacy regulations that "requir[e]

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2 *See* Reply Comments of AT&T in *Petition of USTelecom for Forbearance Under 47 U.S.C. § 160(c) From Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61, at 14 (filed Apr. 24, 2012) ("AT&T USTelecom Reply Comments"); *see also* Exh. A to these comments (showing that, on average, only about 25% of residential housing units in AT&T's ILEC states subscribe to an ILEC POTS service).

3 FCC, *Connecting America: The National Broadband Plan*, at 3 (2010) ("*National Broadband Plan*"); *see also* Report and Order and Further Notice of Proposed Rulemaking, *Connect America Fund et al.*, 26 FCC Rcd 17663, 17926 ¶ 783 (2011) ("*USF/ICC Transformation Order*") (affirming the consumer benefits of "facilitat[ing] the transition" away from the legacy TDM-based network and toward an "all-IP network"); Technology Advisory Council, *Status of Recommendations*, at 11, 15-16 (June 29, 2011) (calling for "PSTN sunset" by 2018), http://transition.fcc.gov/oet/tac/TACJune2011mtgfullpresentation.pdf.

4 *See* AT&T Petition at 8-10 (describing AT&T's $14 billion investment to deploy next-generation services).

an incumbent to maintain two networks" both "reduce[] the incentive for incumbents to deploy" next-generation facilities and "siphon[] investments away from new networks and services." *National Broadband Plan*, at 49, 59; *see* AT&T Petition at 11-20.

The regulatory trials proposed in AT&T's petition are a logical next step to complete the transition to all-IP networks and services; indeed, they should not even be controversial. As an initial matter, there can be no dispute that the Commission has legal authority to conduct these trials, which fit comfortably within the Commission's forbearance authority and its authority to waive it own rules. Congress explicitly directed the Commission to forbear from applying any legal provision "to a telecommunications carrier … in any or some of its … geographic markets," 47 U.S.C. § 160(a), if it finds the forbearance criteria have been met. *Id.* For the reasons stated in AT&T's petition and prior advocacy, those criteria would be satisfied here even if AT&T had requested *permanent* forbearance from legacy regulation in *all* markets. *A fortiori*, those criteria are certainly satisfied when the request is simply for forbearance on a *trial* basis in a *few* markets. In particular, the trials will present no risk of consumer harm, both because they will be geographically limited and because they will be subject to the Commission's full scrutiny throughout their duration. In addition, the Commission may waive any of its rules to facilitate the trials, because "special circumstances warrant a deviation from the general rule, and such deviation will serve the public interest."[5] Finally, the Commission may preempt any state obligation that would interfere with these trials.[6]

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[5] Report and Order and Memorandum Opinion and Order, *Section 272(f)(1) Sunset of the BOC Separate Affiliate and Related Requirements et al.*, 22 FCC Rcd 16440, 16483-84 ¶ 88 n.256 (2007); *see generally* 47 C.F.R. § 1.3.

[6] *See* AT&T Petition at 23; *see generally* Memorandum Opinion and Order, *Vonage Holdings Corporation*, 19 FCC Rcd 22404 (2004) ("*Vonage Order*"); *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 376 n.4 (1986).

From a policy perspective as well, the trials will offer clear benefits with no countervailing costs. Again, most consumers have already made the transition from traditional wireline telecommunications services, subject to the full panoply of federal and state common-carrier regulation, to largely unregulated IP and wireless alternatives. To date, however, the elements of regulatory reform necessary to accommodate and complete that transition have been debated only in the abstract and only in a piecemeal manner, in many disparate proceedings. Some of these proceedings have been inactive for years, and none of them comprehensively treats all of the interrelated issues that must be addressed to facilitate completion of the TDM-to-IP transition. AT&T's petition thus encourages the Commission to evaluate these issues together in a single, unified proceeding to determine what, if any, regulation may be appropriate in the emerging all-IP ecosystem, in which multiple service providers offer competing IP-based services over a variety of wireline and wireless platforms. *See* AT&T Petition at 20-23.

The Commission has taken significant steps in that direction, both by seeking public comment on AT&T's petition and by establishing a new Technology Transitions Policy Task Force charged with studying a host of related IP-transition issues.[7] AT&T applauds these developments and urges the Commission to take the logical next step: a targeted regulatory experiment to test the real-world effects of different reforms. Specifically, the Commission should promptly (i) initiate the limited regulatory trials described in AT&T's petition after eliciting concrete proposals from ILECs and (ii) use the empirical data yielded by those trials to inform the Commission's approach to broader, nationwide reforms. *See* AT&T Petition at 20-23.

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[7] *See* "FCC Chairman Julius Genachowski Announces Formation of 'Technology Transitions Policy Task Force,'" News Release (rel. Dec. 10, 2012), *available at* http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db1210/DOC-317837A1.pdf; Public Notice, Pleading Cycle Established on AT&T and NTCA Petitions, GN Docket No. 12-353 (Dec. 14, 2012).

These trials will enable the Commission to conduct a data-driven examination of the consequences of reforming legacy regulatory requirements.

In the wake of AT&T's petition, several CLECs asked the Commission to reject any empirical analysis, including AT&T's proposed trials, that would shed pragmatic light on the real-world utility of applying legacy regulatory obligations to the coming all-IP environment.[8] According to these CLECs, nothing could be more pointless than "[c]hoosing the test wire centers, designing the tests, conducting the tests, and analyzing the results of the tests." Cbeyond Letter at 7. Yet this is the essence of reasoned agency decisionmaking: gathering the real-world experience needed to make educated decisions about whether particular forms of regulation are justified or not. Here, as in the DTV transition, the Commission can glean important insights—and avoid potential pitfalls—by conducting trial runs before deploying reforms on a nationwide scale.[9] The CLECs ignore this practical benefit of the proposed trials, presumably because they fear that real-world tests will lead to a faster and more market-oriented transition to all-IP networks, and they will be forced to wean themselves more quickly from their antiquated reliance on 20th-century ILEC networks. But that same outcome would do exactly what the Commission itself has called for: it would "facilitate the transition" away from those networks to the "all-IP" networks of the 21st century and, in the process, generate incalculable consumer benefits. *USF/ICC Transformation Order*, 26 FCC Rcd at 17926 ¶ 783.

AT&T is confident that these trials will demonstrate that legacy regulation is both unnecessary and affirmatively harmful to competition and consumers. Over the past dozen years,

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[8] Letter from Thomas Jones (counsel for Cbeyond, EarthLink, Integra, and tw telecom) to Marlene Dortch (FCC), WC Docket No. 10-90 *et al.* (filed Dec. 4, 2012) ("Cbeyond Letter"); *see also* Letter from Robert W. Quinn, Jr. (AT&T) to Marlene Dortch (FCC), WC Docket No. 05-25 (filed Jan. 14, 2013) (responding to Cbeyond letter).

[9] *See* FCC News Release, *DTV Transition Premiers in Wilmington, North Carolina* (May 8, 2008), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-282032A1.pdf.

both mobile wireless services and broadband Internet access have grown explosively and have generated enormous consumer benefits without substantial federal or state regulatory intervention. Indeed, as the Commission has explained, the decision *not* to subject those services to invasive regulation has helped drive the unparalleled investment and innovation in those two industries.[10] By contrast, where regulators have sought to graft legacy regulatory obligations onto next-generation services, they have stifled investment and harmed consumers. In Europe, for example, legacy unbundling rules have slowed investment in next-generation architectures and contributed to the relatively low fiber penetration rates there.[11] Fortunately for U.S. consumers, the Commission has recognized since the 2003 *Triennial Review Order* that requirements such as forced-sharing obligations for packetized infrastructure suppress appropriate investment incentives and chill the deployment of advanced services without any commensurate benefit.[12] The Commission should now eliminate the regulatory underbrush of

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[10] *See, e.g.*, *Vonage Order*, 19 FCC Rcd at 22405 ¶ 2 (finding that preemption of state authority over over-the-top VoIP will "clear[] the way for increased investment and innovation in services … to the benefit of American consumers"); Declaratory Ruling and Notice of Proposed Rulemaking, *Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities*, 17 FCC Rcd 4798, 4802 ¶ 5 (2002) (stating that "broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market"); Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act; Regulatory Treatment of Mobile Services*, 9 FCC Rcd 1411, 1421 ¶ 23 (1994) (finding that strict preemption of state rate regulation of mobile services "will help promote investment in the wireless infrastructure by preventing burdensome and unnecessary state regulatory practices"); *id.* at 1421 ¶ 24 (forbearing from Title II common carrier regulation of CMRS providers so that "investors will be able to make funding decisions based upon their assessment of market forces").

[11] *See* Robert W. Crandall, Jeffrey A. Eisenach, & Allan T. Ingraham, *The Long-Run Effects of Copper Unbundling and the Implications for Fiber*, at 29-30, 44-45 (Mar. 2012), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2018929.

[12] Memorandum Opinion and Order, *Petition of AT&T Inc. For Forbearance Under 47 U.S.C. § 160(c)*, 22 FCC Rcd 18705, 18710 ¶ 8 (2007) (citing Report & Order and Order on Remand, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers et al.*, 18 FCC Rcd 16978, ¶¶ 272-95, 541 (2003), *aff'd in relevant part, United States Telecom Ass'n v. FCC*, 359 F.3d 554, 580-85 (D.C. Cir. 2004)).

other requirements that apply (or have been claimed to apply) in this context but that could stifle innovation and investment in next-generation services.

The most harmful of these requirements are those that prevent ILECs from retiring their legacy (and increasingly outdated) TDM networks and services and thus hamstring their ability to compete vigorously with cable companies and other market leaders in the provision of next-generation IP services. As the *National Broadband Plan* noted, "requiring an incumbent to maintain two networks . . . reduces the incentive for incumbents to deploy" next-generation facilities and "siphon[s] investments away from new networks and services." *National Broadband Plan*, at 49, 59. Moreover, regulations that "require certain carriers to maintain POTS—a requirement that is not sustainable—[would] lead to investments in assets that could be stranded." *Id.* at 59.

As AT&T's petition explains, many legacy regulatory obligations have such counterproductive effects. For example:

- Section 214 discontinuance obligations and the Commission's notice-of-network-change rules lead to delay and regulatory uncertainty when a carrier seeks to replace legacy TDM-based services with superior, IP-based alternatives. That delay and uncertainty may chill additional investment in next-generation services and force ILECs to expend resources to maintain obsolete facilities and services rather than to expand broadband deployment. *See* AT&T Petition at 13-15.

- Federal and state service obligations may preclude a carrier from retiring its TDM-based network, which may deter further investments in replacement IP-based services and result in an inefficient allocation of resources to maintain outmoded TDM facilities and services. *Id.* at 15-18.

- Repeated attempts by CLECs and state regulators to assert state jurisdiction over IP-enabled services have created uncertainty concerning the application of common-carrier regulations to new networks and services, which may further chill investment. *Id.* at 18.

- A host of other legacy regulatory obligations designed for the circuit-switched world would likewise obstruct the transition to an all-IP network. *Id.* at 18-19.

These regulations are not only harmful but completely needless, as consumers increasingly abandon traditional wireline services in favor of IP-enabled and mobile services. *See* AT&T Petition at 10-11. ILECs have been hemorrhaging access lines year after year. Since 1999, the number of residential switched ILEC access lines in AT&T's ILEC states has fallen by more than 68%, even as the number of total housing units that ILECs must serve has soared, and fewer than 30% of households in AT&T's 22-state ILEC region subscribe to traditional ILEC voice services.[13] These figures undermine any argument that consumers will suffer if ILECs are freed of legacy regulatory obligations, given that the growing majority of consumers have rejected these highly regulated ILEC services in favor of essentially unregulated alternatives.

More generally, consumers derive no benefit from the continued application of rules designed to prevent the exercise of monopoly power when the nation's ILECs stopped being dominant long ago and continue to lose ground to cable and wireless operators. Indeed, as the Commission has recognized in other contexts, such asymmetric regulation harms consumers by keeping ILECs from competing vigorously and nimbly in the face of fast-changing consumer preferences.[14] Such regulation would be particularly counterproductive in the converged, all-IP

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[13] *See* Exh. A to these comments; AT&T USTelecom Reply Comments at 14. By comparison, when AT&T Corp. was declared nondominant in 1995 in the provision of interstate, interexchange services, it held almost *two-thirds* of that market. Order, *Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd 3271, 3294 ¶ 40 (1995).

[14] *See* Order, *Motion of AT&T Corp. to be Declared Non-Dominant For International Service*, 11 FCC Rcd 17963, 17965-66 ¶ 8 (1996) (finding that applying asymmetric regulation to no-longer-dominant carriers "hinder[s] competition" and prevents those carriers from "react[ing] as quickly and certainly as [their] competitors" in competing for customers); *see also MCI WorldCom, Inc. v. FCC*, 209 F.3d 760, 765-66 (D.C. Cir. 2000). As a former FCC Chief Economist (and the present Director of the FTC's Bureau of Economics) has explained, regulation in non-monopolistic markets with a high ratio of fixed to marginal costs "is unlikely to improve pricing and may well interfere with competition. Advance tariff filing, for example, may help to stabilize high prices by removing the threat of surprise price cuts that benefit consumers and keep downward pressure on prices. Asymmetrically applied service standards and requirements may have similar effects." Howard Shelanski, *Adjusting Regulation to*

ecosystem, where there will no longer even be legacy categories of providers such as "ILECs" and "CLECs" and "cable companies." There will instead be competing *broadband ISPs*, and voice will be merely one higher-layer application riding over alternative broadband networks.[15] In this world, regulations singling out "ILECs" for special treatment serve only to harm consumers and skew the competitive landscape with no countervailing benefit.

II. NTCA RIGHTLY RECOGNIZES THE IMPORTANCE OF FACILITATING THE TDM-TO-IP TRANSITION, BUT FURTHER DELAY AND ADDITIONAL REGULATION ARE NOT WARRANTED.

AT&T commends NTCA for recognizing, in its own petition, the importance of a comprehensive regulatory response to the TDM-to-IP transition. AT&T further agrees with NTCA that the Commission should address the issues posed by the transition in a holistic manner, rather than on a fragmented, siloed basis as Cbeyond and other CLECs have proposed.[16] And AT&T supports NTCA's call for a dialogue on how best to promote our shared goals.

AT&T disagrees, however, with NTCA's suggestion that the Commission should "retain[] and reassert[]" the "regulatory foundation" in place today while taking its time to "examine each brick" of that foundation in the abstract. *See* NTCA Petition at ii. As discussed, AT&T instead asks the Commission to analyze the costs and benefits of regulation *in practice* by promptly beginning the real-world trials proposed in AT&T's petition. Again, this experiment will give the Commission the empirical insights it needs to make informed judgments about what regulations are necessary for the longer term. And it will enable the Commission to fashion the

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Competition: Toward a New Model for U.S. Telecommunications Policy, 24 Yale J. Reg. 55, 93 (2007).

15 *See* Comments of AT&T, *Connect America Fund et al.*, WC Docket Nos. 10-90 *et al.*, at 40-41 (filed Feb. 24, 2012) ("AT&T FNPRM Comments"). All further references to "FNPRM Comments" refer to parties' comments WC Docket No. 10-90, filed on February 24, 2012.

16 *See* Cbeyond Letter, *supra* note 8.

right regulatory framework from the ground up, instead of trying to shoehorn an antiquated regime into a new context where it does not begin to fit. In short, the trials will produce substantial benefits with no countervailing costs, and further delaying them would accomplish nothing beyond investment-deterring regulatory inertia.

AT&T also disagrees with NTCA's proposal to regulate "IP interconnection" under sections 251 and 252 of the Communications Act. *See* NTCA Petition at iii, 13-14. It is unclear what services NTCA means to encompass within this proposal. But if it is advocating regulation of interconnection between two providers of IP-based services, such regulation would be both needless and harmful, as AT&T has explained at length in prior comments. *See* AT&T FNPRM Comments at 9-47. In fact, unregulated commercial arrangements between IP networks are nothing new; they have long ensured efficient "IP interconnection" and led to the phenomenally successful modern Internet. *See id.* at 9-16. There is no reason to expect a different result once all voice communications ride over converged IP networks. *See id.* at 16-27.

As AT&T has also previously discussed, the Commission lacks Title II authority to regulate interconnection between two providers of IP-based "information services," as retail VoIP providers and Internet service providers are properly classified. *See id.* at 34-41. Section 251(a) requires every "telecommunications carrier" to interconnect directly or indirectly with "other telecommunications carriers." 47 U.S.C. § 251(a). But providers of VoIP and other IP-enabled services are not telecommunications carriers. Section 251(a) is therefore doubly inapplicable where *both* the calling *and* the called parties are communicating via VoIP or similar IP services. *See* AT&T FNPRM Comments at 36-37. Similarly, section 251(c) does not apply to IP-to-IP interconnection because, among other considerations, information service providers have no interconnection rights under subsection (c)(2). *See id.* at 37-38. And no party may

invoke interconnection rights *against* information service providers under section 251(c)(2) because that provision imposes obligations only on ILECs, and a company that provides no telecommunications services cannot be an ILEC. *See id.* at 39-41; *see also* AT&T FNPRM Reply Comments, WC Docket No. 10-90, at 31-32 (filed Mar. 30, 2012). Section 251 thus gives the Commission no legal basis to regulate IP-to-IP interconnection. Section 201 likewise cannot plug this jurisdictional hole because it, too, is restricted to relations between providers of Title II common carrier services. *See* AT&T FNPRM Comments at 41-42; *see also* 47 U.S.C. § 153(51).

CONCLUSION

The TDM-to-IP transition promises to yield unprecedented benefits for consumers in the form of new technologies and increased competition. It is critical that the Commission not permit legacy regulatory obligations—designed for a far different communications landscape—to further delay that transition. The Commission has clear authority to conduct the regulatory trials described in AT&T's petition, and it should do so without delay.

Respectfully submitted,

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EXHIBIT A

Trends in ILEC Residential Switched Access Line Service & Housing Units (1999 - 2012)

State	Cumulative Change in HUs (1999 - 2012)	Cumulative Change in ILEC Res Switched Access Lines (1999 - 2012)	HUs with ILEC POTS Residential Service (2012)	State Rank as % of HUs with ILEC POTS Residential Service (Lowest to Highest)
Michigan	9.5%	-81.7%	16%	1
Nevada	58.4%	-72.1%	18%	2
Florida	30.4%	-75.1%	19%	3
Kansas	11.8%	-70.7%	23%	4
Connecticut	9.4%	-75.1%	23%	5
Illinois	11.0%	-72.4%	24%	6
Texas	29.0%	-67.8%	25%	7
Oklahoma	12.8%	-68.5%	25%	8
Georgia	32.7%	-63.0%	26%	9
Ohio	9.7%	-71.0%	26%	10
Wisconsin	17.2%	-65.9%	26%	11
Alabama	14.6%	-63.8%	26%	12
North Carolina	30.6%	-62.6%	26%	13
Tennessee	20.7%	-66.3%	27%	14
Arkansas	16.6%	-60.0%	27%	15
Mississippi	13.3%	-59.7%	27%	16
Indiana	13.9%	-66.6%	28%	17
Louisiana	8.5%	-64.6%	28%	18
South Carolina	29.2%	-57.5%	28%	19
Kentucky	13.8%	-61.1%	29%	20
California	15.5%	-66.5%	30%	21
Missouri	14.6%	-62.1%	31%	22
22-State Totals	**19.4%**	**-68.3%**	**25%**	

Data Source:

- ILEC residential switched access lines from FCC Local Telephone Competition Reports
- Housing Units (HUs) are linear plots from 1990, 2000 & 2010 Census data
- Data for 2011 & 2012 are estimates using linear trending