Before the
Federal Communications Commission
Washington, D.C.20554

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

COMMENTS OF NTCA–THE RURAL BROADBAND ASSOCIATION

NTCA–The Rural Broadband Association ("NTCA")[1] hereby submits these comments in response to the Public Notice[2] released on February 21, 2014 in the above-captioned proceeding. NTCA herein expresses its support for the Iowa Network Services ("INS") proposal[3] to conduct a service-based "IP transition" experiment, as called for by the Federal Communications Commission (the "Commission") in its Order of January 31, 2014.[4] The INS Proposal concerns the Time-Division Multiplexing ("TDM")-to-Internet Protocol ("IP") transition for Centralized Equal Access ("CEA") services.

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[1] NTCA represents nearly 900 rural rate-of-return regulated telecommunications providers. All of NTCA's members are full service local exchange carriers and broadband providers, and many provide wireless, video, satellite, and/or long distance services as well.

[2] *Commission Seeks Comment on Proposal of Iowa Network Service, Inc. For Service-Based Technology Transitions Experiment*, GN Docket Nos. 12-353, 13-5, Public Notice, DA 14-238 (rel. Feb. 21, 2014) ("Public Notice").

[3] Application of Iowa Network Service, Inc. for Authority to Conduct a Service-Based Experiment Concerning the TDM-to-IP Transition for Centralized Equal Access Service, GN Docket No. 13-5 (fil. Feb. 20, 2014) ("INS Proposal").

[4] *In the Matter of Technology Transitions*, GN Docket No. 13-5, *AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition*, GN Docket No. 12-353, *Connect America Fund*, WC Docket No. 10-90, *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, *Telecommunications Relay Services And Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, *Numbering Policies for Modern Communications*, WC Docket No. 13-97, Order and Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5 (rel. Jan. 31, 2014) ("IP Experiments Order").

As the INS Proposal states, the "evolution of CEA to an all-Internet Protocol ("IP") network will help achieve one of the primary goals of the service-based experiments: speed technological advances in rural America while preserving the positive attributes of network services that consumers have come to expect."[5] More specifically, the CEA services provided by INS have enabled the availability of competitive and advanced communications services for consumers that might not otherwise have affordable access, or access at all, to such services. By sustaining the kind of reasonable regulatory and cost recovery frameworks that have made networks like that offered by INS possible even as underlying technologies evolve, consumers in rural Iowa can continue to take part in the IP evolution.

Specifically, the success of the INS network, and the concurrent success of rural rate of return-regulated incumbent local exchange carriers ("RLECs") in bringing innovative, IP-based services to high cost areas, has occurred within a regulatory framework that has helped to ensure that core statutory objectives of universal access (including universal service), competition, public safety, and consumer protection, endure. While this framework may be in need of review and modernization, the INS Proposal only underscores how the Commission can promote and sustain the IP evolution going forward by preserving the best parts of the framework that has brought such benefits to consumers.

[5] INS Proposal, p. 1.

I. THE COMMISSION SHOULD AUTHORIZE THE IOWA NETWORK SERVICES, INC. SERVICE-BASED EXPERIMENT FOR IP-BASED CENTRALIZED EQUAL ACCESS SERVICES

A. Centralized equal access services play a vital role in ensuring that consumers in sparsely-populated rural areas have access to affordable and reliable advanced services

The INS Proposal highlights the vital role that CEA services have played in making competitive and advanced services (such as interexchange, wireless, internet protocol television ("IPTV") and broadband internet access services) available to consumers living in remote and sparsely populated rural Iowa.[6] Through the investment of its RLEC owners and operators, INS has constructed a statewide fiber network that connects to over 300 rural exchanges operated by over 140 RLECs. The INS network provides an indirect connection to the participating RLECs' networks via a small number of points of interconnection ("POIs").[7] As the INS Proposal states, "communications and information service providers have the choice of reaching thousands of customers in hundreds of rural communities through a single CEA connection…providing consumers in rural LEC service areas with an attractive choice of several IXCs and [increasing] the availability of a variety of competitive service offerings."[8] Just as important, the redundancy built into the network, including both fiber ring connectivity and connections to localized switching facilities that avoid single points of failure in remote locations for 911 and other essential calls,[9] ensures a reliability that helps protect rural consumers in these far-flung exchanges from being isolated from the outside world.

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6 *Id.*, pp. 2-4.

7 *Id.*, p. 2.

8 *Id.*, pp. 2-3.

9 *Id.*, pp. 9-11. This benefit should be neither ignored nor minimized. If public policy compels or effectively encourages that all calls (including those to public safety resources) must route through centralized switching locations dozens or hundreds of miles away, this creates single (or nearly singular)

The efficiencies created by the INS network's aggregation of its participating RLECs' voice traffic make it possible for consumers living in sparsely-populated rural exchanges to have access to services that they otherwise would not, or would not have access to on an affordable basis. As the INS Proposal discusses, this is due to the fact that the centralized platform provided by the INS network avoids "the costs associated with equal access conversions on a rural exchange by rural exchange basis."[10] State networks, like the INS network and similar networks operating in other states, provide their RLEC owners and operators with the opportunity to centralize and jointly provision equal access and numerous other network services and create efficiencies that minimize costs. In many sparsely-populated rural areas, the ability to operate pursuant to such arrangements is necessary to the provision of affordable services. Going forward, maintaining the existing cost recovery arrangements that have made INS and similar networks possible in the first instance must be seen as necessary to sustain these benefits and to promote the already ongoing IP evolution.

B. The proposed INS experiment will confirm that the existing cost recovery arrangements that make these services possible can and must continue in an all IP environment

As INS states, its proposal for a service-based experiment is designed to determine whether the success of the INS network can be replicated and seamlessly transferred to an all-IP environment (while maintaining the enduring values of universal access, public safety, competition, and consumer protection). As an initial matter, it should be noted that as the Commission considers this and other service-based experiments it should not lose sight of the fact that not only is the "IP transition" or "IP evolution" already underway (as the Commission

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points of failure that could hinder or preclude access to public safety in the event of fiber cuts or other natural disasters and adversely affect other mission-critical communications between network users.

[10] *Id.*, pp. 5-6.

itself has noted),[11] the term "experiment" is itself a misnomer—at least as to the technical and operational aspects of any such proposal.

For one, interconnection agreements for the exchange of IP voice traffic have moved well beyond the experimental stage. The National Exchange Carrier Association ("NECA") has for a number of years offered a tariffed rate for the termination of Voice over Internet Protocol ("VoIP") traffic by RLECs.[12] There have also been reports of other IP interconnection arrangements, including one between Verizon and Bandwidth.com, over the past several years.

Moreover, it is likely that many consumers have experienced the shift in the underlying technology (from TDM to IP) that makes possible their communications services without ever being *aware* of that shift, other than recognizing new functionalities or features coming to market (or, in the case of some consumers, calls dropping or failing as Quality of Service is not managed as well as it should and can be on an IP-based network). As AT&T states in its service-based experiment proposal, "many seniors already have made the transition from traditional wireline telephone services to wireless and wireline IP-based services (often without even knowing they have done so)."[13] This tracks with the experience of rural carriers. A number have deployed cutting-edge, IP-enabled switching/routing platforms, and other IP-based services, leading the IP evolution by upgrading the underlying technology they use to serve their high-cost rural areas while maintaining a high level of service quality, consumer satisfaction, and universal service. Thus, it can hardly be said that the use of IP technology to provide communications services in rural America, or elsewhere for that matter, is "experimental."

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[11] IP Experiments Order, ¶ 2.

[12] *See*, NECA Tariff F.C.C. No. 5, Access Service, Trans. No. 1309 (fil. Apr. 15, 2011) (effective May 1, 2011).

[13] AT&T Proposal for Wire Center Trials, Wire Center Trial Operating Plan, GN Docket Nos. 13-5 & 12-353 (fil. Feb. 27, 2014) ("AT&T Experiment Proposal"), p. 3.

Most importantly, this already-ongoing IP evolution began and has continued against and within a regulatory backdrop that, while in need of review and modernization, has helped to ensure that core values and statutory objectives always remain a key consideration. As NTCA said in its 2012 petition asking the Commission to initiate a rulemaking to promote and sustain the ongoing IP evolution, the "fundamental need of all Americans for high-quality communications and affordable access to the services that enable such communications remains unchanged and is entirely independent of the underlying technology"[14] that connects them. Thus, there is no need to carelessly tear out the regulatory fabric that has helped bring us to the point where the IP evolution is already alive and well. As the Commission itself has said, the "purpose of these experiments is to speed market-driven technological transitions and innovations *by preserving the core statutory values* as codified by Congress – public safety, ubiquitous and affordable access, competition, and consumer protection – that exist today."[15] In other words, these statutory values are in part a driver of, not a hindrance to, the IP transition.

The INS Proposal provides a valuable platform for understanding the values that consumers should expect and demand of a network, IP or otherwise. The proposal "will explore whether IP-based advanced services can be installed and maintained more quickly, efficiently, and economically via IP CEA on a statewide basis, instead of on an individual LEC or rural exchange basis."[16] As discussed in the INS Proposal, TDM CEA brought innovation to rural Iowans that may not have otherwise had access to competitive and advanced services on an affordable basis, or at all. The INS experiment is designed to replicate this success and bring innovative IP services to these same rural consumers. By maintaining the existing cost recovery

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[14] Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution (filed Nov. 19, 2012) ("NTCA Petition"), p. 4.

[15] IP Experiments Order, ¶ 1. (emphasis added).

[16] INS Proposal, p. 6.

arrangements[17] and the aggregation of each individual participating RLECs' traffic, which has thus far made the INS network a success, INS can "study whether IP CEA can operate as a centralized platform extending innovation to rural consumers."[18]

In short, service-based IP transition experiments, like the one proposed by INS, can demonstrate that the shift to IP as an underlying technology need not serve as a justification for carelessly tossing out portions of the regulatory framework that promote universal access. It is true that a number of issues—including but not limited to, public safety, scalable numbering databases, and the reliable routing of voice calls as carrier-grade quality of service apparently becomes an afterthought for some providers—remain to be "solved." But, the INS Proposal can help to show how IP-based migrations, if infused with a commitment to certain values and service quality (or the imposition or maintenance of obligations to adhere to such values), can accrue to the benefit of consumers. Indeed, among the issues that still need to be resolved (yet should not be the subject of serious debate) is the seamless interconnection that maintains service availability and quality and does not foist the costs of transporting traffic disproportionately upon small rural customer bases.[19] The INS service-based experiment will serve as a valuable guide to the Commission, demonstrating that the rules of the road that have brought us to this point will not hinder, and in fact will only help to promote and sustain, further progress of the IP transition.

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[17] This is consistent with the Commission's determination that existing intercarrier compensation arrangements remain undisturbed during any service-based experiment. IP Experiments Order, ¶ 63.

[18] INS Proposal, p. 6.

[19] In that regard, lingering regulatory uncertainty surrounding the exchange of traffic that is in all other respects subject to Section 251 and 252 of the Communications Act hinders the seamless interconnection of IP-enabled networks. The Commission should therefore confirm that Sections 251 and 252 of the Communications Act are applicable to the exchange of all traffic between carriers using their managed networks. These statutory provisions are not impediments to negotiated agreements for the exchange of traffic; to the contrary, these provisions provide carriers with substantial flexibility to pursue tailored solutions to interconnection issues, with a "regulatory backstop" to ensure that consumers' connectivity is not lost in the event that an agreement cannot be reached.

Along these lines, the Commission should reject calls for fewer interconnection points across a wider geographic area, or other measures that, while perhaps technically feasible, would be inconsistent with the values that the Commission has touted as paramount in these experiments. For example, migrating to just a handful of interconnection points nationwide would undermine the benefits of CEA networks and could impose significant, new costs on smaller carriers forced to deliver traffic to points of interconnection perhaps *several hundred miles or more* outside their service areas if the financial responsibility for these extended transport routes is transferred from interexchange carriers to rural carriers and their customers. Arguments of this sort confuse the "efficiency" of IP-enabled services with the notion that underlying networks somehow become costless (or "free") in an IP-enabled world. Routing and transport costs associated with hauling traffic from western Nebraska to Denver, from Des Moines to Chicago, or from South Dakota to Seattle do not disappear simply because the traffic in question may happen to be formatted in IP. Particularly if the costs of such transport can only be recovered from a small rural customer base, this will undermine the deployment of IP-enabled services to those rural consumers, and would ultimately threaten the quality and affordability of the services they can obtain.

For all the aforementioned reasons, NTCA urges the Commission to grant approval for INS to conduct a service-based "IP transition" experiment. As detailed in their proposal, INS has demonstrated their commitment to meeting all of the value-based presumptions and conditions, including customer notice requirements,[20] set forth in the IP Experiments Order. As noted above, the INS Proposal will demonstrate how the Commission can promote and sustain

[20] INS Proposal, pp. 9-19.

the IP evolution going forward by preserving the best parts of the framework that has brought such benefits to consumers.

Respectfully Submitted,

NTCA–THE RURAL BROADBAND ASSOCIATION

By: */s/ Michael R. Romano*
Michael R. Romano
Senior Vice President – Policy
mromano@ntca.org

Brian Ford
Regulatory Counsel
bford@ntca.org

4121 Wilson Boulevard, 10th Floor
Arlington, VA 22203
(703) 351-2000