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Technology Transitions Policy Task Force
Seeks Comments on Potential Trials

Comments of AARP

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David Certner
Legislative Counsel and
Legislative Policy Director
Government Affairs
AARP
601 E Street, NW
Washington, DC 20049
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Introduction

AARP respectfully submits these Comments for the FCC’s consideration, and thanks the Commission for the opportunity to participate in this important proceeding regarding the transition to broadband networks.¹ AARP is keenly interested in this technology transition. Telecommunications technologies play a growing role in the lives of older Americans, i.e., those in 50+ households. The impact of broadband technologies is only beginning to be felt. The widespread availability of high quality and affordable broadband connections—both fixed and mobile—can enable new applications and services, including new methods of delivering healthcare and support for independent living. Video conferencing and advanced telepresence technology have the potential to empower older Americans to successfully age in place. Broadband connections also have the potential to benefit consumers by encouraging competition and choice. For example, by enabling high-quality streaming video, broadband may finally allow consumers to bypass the bundles of television programming offered by cable and satellite providers, and gain access to reasonably priced à la carte programming options.

AARP has recently addressed some of the issues raised by the Public Notice in comments and reply comments filed in the Commission’s evaluation of AT&T and NTCA petitions which raised technology transformation issues.² AARP has attached its comments and reply comments from that docket as AARP believes that recommendations made therein are equally valid for the Commission’s consideration in this proceeding.

¹ These comments were prepared with the assistance of Trevor R. Roycroft, Ph.D., a consultant to AARP.
² See, Comments and Reply Comments of AARP, AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition; Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution, WC 12-353. Comments filed January 28, 2013, Reply Comments filed February 25, 2013.
Objectives of Technology Trials

The Public Notice states:

The goal of any trials would be to gather a factual record to help determine what policies are appropriate to promote investment and innovation while protecting consumers, promoting competition, and ensuring that emerging all-Internet Protocol (IP) networks remain resilient.3

While AARP believes that policies that promote competition, investment, and innovation are highly desirable, and that consumer protection and the availability of high-quality services are paramount, AARP is not convinced that, absent significant clarification and increased detail, the proposed trials will generate the reliable factual record that is envisioned by the Public Notice. Some of the trials that are proposed (e.g., the wireline-to-wireless, and all-IP trials) appear to be tailored to the business plans of carriers, and whether trials reflecting those business plans will generate information that is capable of supporting broadly applicable policies is questionable. AARP is also concerned that the objectives of the trials stated in the Public Notice are not oriented toward universal service goals, especially the Commission’s revised vision for universal service stated in the National Broadband Plan.

Quantifying the impact of a trial on investment and innovation will likely be difficult. Technology changes introduced during a trial would require some period of gestation prior to new innovation, and whether a trial period would be long enough to allow for such an outcome to be observed is unlikely. Alternatively, investment levels before and after a trial are essentially choice variables for an ILEC participating in a trial, and quantifying investment attributable to the parameters of a trial could be complex and subject to gaming.

AARP is concerned with matters of consumer protection in light of proposed trials, and AARP also has concerns regarding the resilience of emerging all-IP broadband networks. In the comments below, AARP provides its perspectives on matters raised in the Public Notice. What is clear from the matters raised therein is that the technology trials have the potential to significantly impact consumers, and AARP urges the Commission to exercise great care in designing and conducting trials so that harms do not arise.

Overarching Issues with any Trials

Consumer Protection Must Be at the Forefront of Technology Trials

As the Commission considers the complex and interrelated issues associated with technology transition, AARP believes that the FCC should be guided by a key observation contained in the TPTF Public Notice:

“As consumer protection is a core principle guiding the work of the Task Force, comments in support of any trial proposal should address how best to ensure a successful trial while also avoiding potential harmful impacts to consumers.” (Public Notice, p. 3.)

As AARP has discussed in earlier comments regarding the technology transition issues raised in the AT&T/NTCA petitions, the overarching policy issues that have concerned the Commission (and state commissions) in the TDM environment continue to be applicable in an all-IP world.4 AARP believes that the technology transition should ultimately result in the delivery of high quality and affordable next generation IP-based services to all Americans. This transition should preserve all essential capabilities and functions of the existing network, but also produce demonstrated benefits for residential consumers in the form of new services, better-quality

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4 AARP Comments, AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition; Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution, WC 12-353, January 28, 2013, p. 3.
service, and affordable prices. Any technology trial should be consistent with these objectives and focused on protecting the safety and welfare of participating consumers.

**Trials Should Advance Broadband Universal Service Objectives**

The *Public Notice* asks whether it should conduct a trial that has a focus on universal service. AARP believes that universal service objectives must be at the forefront of all trials conducted by the Commission. The general approach outlined in the *Public Notice* lacks sufficient connection to the Commission’s technology-transformation policy objectives as stated in the *National Broadband Plan*. The Commission identified an overarching goal in that plan:

**Goal No. 1: At least 100 million U.S. homes should have affordable access to actual download speeds of at least 100 megabits per second and actual upload speeds of at least 50 megabits per second.**

The United States must lead the world in the number of homes and people with access to affordable, world-class broadband connections. As such, 100 million U.S. homes should have affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps by 2020. This will create the world’s most attractive market for broadband applications, devices and infrastructure.

The year 2020 is now just six and one-half years away, and for the Commission to achieve its stated objective, technology trials must advance the goals outlined in the *National Broadband Plan*. While it is abundantly clear how some of the trials are oriented to the business plans of carriers (for example, the wireline-to-wireless trial proposal reflects plans advanced by Verizon before this Commission⁷), it is much less clear how the trials contribute to achieving the Commission’s broadband policy objectives. AARP recommends that, to the extent practical, the design of any trial should advance broadband universal service objectives.

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⁵ *Public Notice*, p. 11.
Trials Must Involve State and Tribal Governments, as well as Local 911 Authorities and First Responders

The Public Notice raises the issue of the role of state and tribal governments. Given the similarity of many of the issues raised in the Public Notice and the AT&T/NTCA petitions, it is somewhat disheartening to see no reference to the extensive comments and reply comments that were received by the Commission in that docket (WC 12-353) from NARUC, NASUCA, and the State Members of the Federal-State Joint Board. The Public Notice’s discussion of the role of the states ignores the valuable contributions of these parties. Any technology trial must involve state authorities, not as an afterthought, but in partnership with the Commission. As noted by the State Members of the Federal-State Joint Board in theirs comments in response to the AT&T and NTCA petitions, any trial must acknowledge the authority of the state commissions, and AARP sees nothing in the proposed trials identified in the Public Notice that is any different. Repeating the State Member’s perspective is appropriate:

The State Members believe that State and federal regulatory policies that operate to maintain and advance the statutorily protected universal service concept must not be undermined by changes in telecommunications technologies and communications protocols, including the TDM to IP transition and evolution of the common carrier telecommunications public telephone switched network (PSTN). Arguments that allege the “technological” erosion of this protected universal service principle are simply unfounded. Similarly, the State Members believe that carrier of last resort (COLR) obligations for wireline telecommunications common carriers continue to play an inherent and significant part in the joint State and federal goals for preserving and enhancing universal service.

Furthermore, it is critical that the Commission recognize that universal service policy that has been developed by Congress singles out the role of the state commissions in Sections 254, 214,

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8 The Public Notice does reference the NARUC Charter of the Task Force on Federalism and Telecommunications, and the Intergovernmental Advisory Committee Policy Recommendation 2013. Public Notice, footnotes 47 & 48. However, no other reference can be found to the positions of these parties in WC Docket No. 12-353.

9 State Members of the Federal-State Joint Board Comments In the Matter(s) of AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition Petition of the National Telecommunications Cooperatives Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution, WC Docket No. 12-353 [DA No. 1999], p. 2.
and 706. While the Communications Act [§253(a)] allows the FCC to preempt any state law or regulation that prohibits or has “the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications services,” state authority is still preserved:

Nothing in this section shall affect the ability of a State to impose, on a competitively neutral basis and consistent with section 254, requirements necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers.\(^\text{10}\)

These provisions certainly apply within the context of the trials envisioned in the Public Notice. AARP encourages the Commission to work in partnership with the states on matters associated with any technology trial. The expertise of the state commissions will contribute invaluably to charting the path forward, and by addressing existing state statutory and policy objectives up front, trials will be able to proceed in a more efficient fashion.

Furthermore, several of the trials proposed could have an impact on access to emergency services. As a result, trials must also be open to input from local 911 officials and first responders. Changes in the functionality of 911 services resulting from a trial could place public health and safety at risk, and also increase risks for first responders.

**Trials Should Be Based on Standardized Data Collection and Reporting**

The Public Notice seeks comment on ways to obtain useful data from trials that the FCC conducts.\(^\text{11}\) AARP agrees that, as with any investigative exercise, data collection and analysis is critical. To maximize the benefits of a trial, the Commission should standardize the data collection process across participating carriers, and should also apply a consistent approach to gathering data from the consumers that are participating in the trials. In the past, the Commission has collected data from carriers through its Automated Reporting Management

\[^{10}\] Communications Act, §253(b).
\[^{11}\] Public Notice, p. 3.
Information System (ARMIS). The Commission should consider a similar mechanism to collect data from participating carriers in any trial. Each carrier should submit information in a uniform format, to enable cross-carrier comparisons, as well as the evaluation of individual carrier data, and data collected over time. For example, one area where the Public Notice anticipates data collection is associated with the VoIP Interconnection trial. The Public Notice anticipates collecting data related to the duration of negotiations, issues of dispute, data on implementation associated with call quality and reliability, and reports of technical problems. Electronic data submission through a web-based portal would be ideal for the collection of this type of data. Electronic data submission through a portal would also improve the efficiency of data analysis.

To the extent practical, data submitted associated with trials should be accessible to the public. If proprietary information is collected, the Commission should enable access to that data by interested parties who are willing to enter into a confidentiality agreement. The data that are collected should be made available to state regulatory commissions, and state commissions should have the capability to provide input regarding data collection in their state, including the ability to independently collect data.

The Commission has also previously collected information directly from consumers through its FCC Report 43-06, the ARMIS Customer Satisfaction Report. Collecting information from consumers will also be critical to the data gathering process. However, the previous FCC customer satisfaction survey does not provide sufficient depth of inquiry. The Commission should conduct customer surveys before, during, and after a trial. Given the advances in information and communications technology, it would be reasonable to enable, in

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12 Public Notice, p. 6.
addition to formal surveys, informal self-reporting portals that would enable customers to provide information regarding their experience in real time.

**Summary of Overarching Objectives**

Technology trials will be more likely to succeed if these four overarching issues are addressed when trials are designed and executed. Consumer protection, involvement of state, tribal, and local emergency service providers, pursuit of universal service objectives, and standardized data collection and reporting should be key features of any trial pursued by the Commission.

**The Trials Proposed in the Public Notice**

The *Public Notice* places technology transition issues into individual silos, which is understandable for the purposes of administering a proceeding and seeking comment. However, AARP believes that it is also important to pay attention to the interrelationships among issues. Failure to address interrelated issues will unreasonably restrict the design of trials and will make the protection of consumers during the technology transition more difficult. In the sections that follow, AARP will directly address the issue categories raised in the *Public Notice*, and will also comment on the interrelationship among the issues where overlap arises. It is recommended that the Commission fully address the interrelated nature of the issues raised in the *Public Notice*, as well as the overarching issues discussed above.

**VoIP Interconnection Trial**

Interconnection is the foundation of the pro-competition provisions of the Communications Act. Section 251 spells out a hierarchy of interconnection obligations that apply to all telecommunications providers, local exchange carriers, and incumbent local
exchange carriers. These obligations are entirely technology neutral, and the transition to all-IP network and VoIP (managed or otherwise) does not obviate the need for oversight of interconnection. While IP-based Internet peering has generally been achieved without regulatory intervention, failures in that realm have occurred, and have led to service disruptions.\textsuperscript{13} Potential interconnection disputes and service disruptions associated with interconnection conflicts for managed VoIP services are even more likely as managed VoIP reflects an interconnection relationship that, while based on a different technology platform, is virtually indistinguishable from the interconnection relationship that is associated with conventional TDM-based voice services. Carrier service descriptions make this abundantly clear. For example, Verizon explains:

\begin{quote}
With Verizon Voice over IP (VoIP) services, you get simple, network-based IP voice services delivered over Verizon’s Private IP backbone network.\textsuperscript{14}
\end{quote}

AT&T offers a similar explanation of managed VoIP traffic carried on its U-Verse network, and explains why managed VoIP is not compatible with general Internet peering relationships:

\begin{quote}
Traditionally, arrangements for differential IP packet handling have been mostly—though not exclusively—confined to communications that begin and end on a single IP network, such as corporate LANs or residential IP access networks like AT&T’s U-verse. Differential packet handling is still uncommon for traffic exchanged between unaffiliated IP networks through ordinary peering and transit arrangements. If IP Network X marks packets for priority and hands them off to Network Y, Y would likely disregard X’s prioritization markings and treat the packets like all other best-effort Internet traffic from that point forward…\textsuperscript{15}
\end{quote}

\textsuperscript{13} See, for example, “Level 3, Cogent resolve peering dispute, renew deal Connections between them cannot be severed without notifying customers first,” \textit{ComputerWorld}, October 28, 2005.
\textsuperscript{14} \url{http://www.verizonenterprise.com/Medium/products/voice/voip/}
\textsuperscript{15} AT&T Comments \textit{In the Matter of Connect America Fund, A National Broadband Plan for Our Future, Establishing Just and Reasonable Rates for Local Exchange Carriers, High-Cost Universal Service Support},
While voice traffic is carried in IP format, the managed VoIP service is delivered using the carrier’s facilities, not the general Internet. Thus, managed VoIP looks like the previous technology platform—carriers transport the voice traffic on their own networks and ensure the performance of the service. Given that the interconnection framework surrounding managed VoIP will be comparable to that associated with the previous technology generation, history can serve as a guide, and history has demonstrated that interconnection for voice services can be subject to undue discrimination, anti-competitive behavior, and the exercise of market power. There is no reason to believe that firms that maintain a bottleneck arrangement for access to their customers using IP-based technology will not be tempted to exploit their market power.

**Managed VoIP Is Not an Information Service**

AARP believes that the emphasis placed on interconnection in federal law is entirely appropriate, and this emphasis must carry over to interconnection matters related to managed VoIP services either inside or outside of a trial. In light of statutory requirements, AARP is concerned about the process proposed in the *Public Notice*:

We are considering allowing providers that participate in a trial to negotiate in good faith without a backstop of regulations or specific parameters and provide updates, reports, and data to the Commission regarding any technical issues as well as any other issues of dispute. This would appear to frame the VoIP interconnection process from the information service perspective. It is clear that VoIP services are not information services. NARUC offered a compelling explanation of this fact in its comments in WC 12-353:

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17 *Public Notice*, p. 5.
First, the FCC has specifically chosen—so far—not to classify fixed (or nomadic) VoIP services as either a telecommunications service OR an information service. However, other than the FCC’s inexplicable reticence to classify any VoIP services, without exception, since Computer II, the FCC has always treated all voice service that utilizes the public switched network as common carrier services—whatever protocols were utilized—because, as the definitions in the Act specify, the voice communication from the end-user’s standpoint undergoes no change in the form or content of the information as sent and received.

Second, the FCC is not free to ignore the express terms of the statute to shoehorn a service that clearly meets the functional definition of a “telecommunications service” specified by Congress into the “information services” classification. There is no question Congress defined both “telecommunications services” and “information services” in terms of the service offered, not the technology used to provide that service.

According to Congress:

The term “telecommunications service” means the offering of telecommunications for a fee directly to the public . . . regardless of the facilities used . . .

and

The term “telecommunications” means the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.

Fixed VoIP is offered for a fee directly to the public in head-to-head competition with voice services provided using different technologies. Fixed VoIP also, like all other voice services, provides “transmission between or among points specified by the user, of information of the user’s choosing without change in the form or content of the information as sent and received.” It is undeniably “telecommunications”.

From a regulatory perspective, fixed VoIP traffic is indistinguishable from any other voice service. Such traffic is never a part of the so-called public Internet. Such traffic is severable. Fixed VoIP providers interface with the PSTN as do all other carriers. To end-users such services are indistinguishable from services provided by existing carriers subject to State oversight.18

While the degree to which the deregulatory approach to negotiated agreements advanced in the Public Notice will run afoul of the statute will depend on the parties involved, there is no question that treating VoIP as an information service will subvert the pro-competition goals of the Communications Act. To the extent that local exchange carriers and/or incumbent local

18 NARUC Comments in WC 12-353, pp. 11-13, citations omitted, emphasis in the original.
exchange carriers are parties to the negotiation, the information service approach described in the
Public Notice is even more troubling.

Interconnection Obligations Are Technology Neutral
It is clear to AARP, and it has previously been clear to the Commission, that
interconnection obligations under federal law are technology neutral. In the Connect America
Fund Order the Commission noted:

[W]e observe that section 251 of the Act is one of the key provisions specifying
interconnection requirements, and that its interconnection requirements are technology
neutral—they do not vary based on whether one or both of the interconnecting providers
is using TDM, IP, or another technology in their underlying networks.19

In that same order the Commission also stated that good faith negotiation requirements are
technology neutral:

The duty to negotiate in good faith has been a longstanding element of interconnection
requirements under the Communications Act and does not depend upon the network
technology underlying the interconnection, whether TDM, IP, or otherwise.20

AARP believes that this language clearly supports the proposition that IP-based interconnection
is telecommunications, and should be governed by the Section 251 provisions.

Market Power Is Still a Concern with Managed VoIP Interconnection
With regard to managed VoIP services, there is no question that there is the potential for
a carrier, especially a large carrier, to exercise market power.21 While the federal
Communications Act singles out local exchange carriers for special regulatory treatment on the

19 Connect America Fund Order, ¶1342.
20 Connect America Fund Order, ¶1011.
21 Because of the positive network effects associated with a large customer base, other carriers will lose significant
value to their customers if they fail to interconnect with a large carrier, increasing the leverage of the carrier with the
large customer base. On the other hand, as the Commission has learned through problems with call termination for
smaller carriers, the lack of large-scale network effects can lead some service providers to avoid interconnection
with small carriers, to the detriment of all customers. See, In the Matter of Rural Call Completion, WC Docket No.
matter of interconnection charges,\textsuperscript{22} the phenomenon also affects markets that are otherwise viewed as more competitive at the retail level.\textsuperscript{23} Ongoing market power, especially with regard to interconnection, would result in market trials that would undermine competition and disadvantage the customers of the firms that must interconnect with the ILEC. AARP believes that the Commission should clarify that under the 1996 Act, ILECs must enter into negotiations for managed IP interconnection arrangements upon request, subject to State arbitration when the parties cannot reach agreement within the timeframes set forth in Section 251(c)(2).

The Public Notice goes on to state:

\begin{quote}
[S]hould there be a process for arbitrating or mediating disputes? If so, should the state be responsible for arbitrating the agreements, or should the Commission or an independent entity arbitrate or mediate any disputes? Should any VoIP interconnection agreements reached during the trial be the basis for future agreements or could doing so impact the negotiations during the trial? If we undertake a trial under the section 251/252 framework, should the existing rules be applied or should they be modified?\textsuperscript{24}
\end{quote}

Under the Communications Act, there is already a process for arbitration of disputes involving ILECs.\textsuperscript{25} Absent changes to the federal statute, AARP does not believe that this process can be changed. Given state experience with arbitration and mediation, it would be reasonable to allow state oversight of managed VoIP interconnection issues that involve local exchange carriers or ILECs. Of course, the federal Act provides a failsafe mechanism to enable FCC action in the event that a state refuses to act.\textsuperscript{26}

With regard to the potential for VoIP interconnection agreements becoming the basis for future agreements, federal law also applies:

\begin{itemize}
\item \textsuperscript{22} Communications Act, §§251(b)(5) and 251(c).
\item \textsuperscript{23} There is a substantial literature addressing mobile call termination issues. For a relatively recent summary of that literature, see, Armstrong, Mark and Wright, Julian, "Mobile Call Termination," \textit{The Economic Journal}, Volume 119, Issue 538, pages F270–F307, June 2009.
\item \textsuperscript{24} Public Notice, p. 6.
\item \textsuperscript{25} Communications Act, §252.
\item \textsuperscript{26} Communications Act, §252(e)(5).
\end{itemize}
A local exchange carrier shall make available any interconnection, service, or network element provided under an agreement approved under this section to which it is a party to any other requesting telecommunications carrier upon the same terms and conditions as those provided in the agreement.27

Interconnection for managed VoIP services does not introduce any novel issues regarding the motivation for this requirement of law. Carriers with market power may have incentives to unreasonably discriminate and unreasonable discrimination regarding the terms and conditions of interconnection may be harmful to competition and consumers. As a result, similarly situated parties that desire to interconnect with LECs should be treated similarly. There is no reason to deviate from this foundation when it comes to managed VoIP interconnection.

Finally, with regard to the potential need to modify existing rules surrounding the §251/252 framework raised in the Public Notice, the Commission should continue to abide by federal statute regarding interconnection and should not subvert the statutory provisions contained in Sections 251 and 252 of the Communications Act. AARP encourages the Commission to pursue the path identified in the Public Notice which specifies that the current, statutorily mandated approach be utilized (i.e., per §251/252 of the Telecommunications Act).28

**Geographic Scope of the Interconnection Trial**

The Public Notice seeks comment on the geographic scope of the trials, suggesting that a trial in at least one major metropolitan area and one rural area should be conducted. While geography certainly introduces the potential for desirable variability, the Commission should also be as concerned with corporate variability. Some ILECs serve metropolitan and/or rural areas in a variety of states. Trials that involve ILEC “A” in alternative geographic areas may not

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27 Communications Act, §252(i).
28 Public Notice, p. 5.
be representative of the issues that arise with ILEC “B”. Thus, the Commission should consider structuring trials to generate a representative sample of ILEC service territories.

**Public Safety—NG911**

The *Public Notice* seeks comment on a trial that would deploy an “all-IP” NG911 service on an accelerated basis in a number of geographic areas.\(^{29}\) AARP believes that the Commission must clarify whether the “all-IP” NG911 trial that is envisioned includes all participating households and businesses being served with IP-based services, which would require ubiquitous broadband deployment in the trial area, or whether the “all-IP” NG911 trial would allow for TDM-based traffic to be fed into an all-IP NG911 network. Assuming for the moment that the “all-IP” NG911 service refers to the NG911 all-IP network, with TDM technology still delivering 911 calls from the TDM-based PSTN, AARP believes that the proposal for a trial certainly makes sense, however, AARP also notes, as does the *Public Notice*, that NG911 conversion is already underway.\(^{30}\) Thus, any NG911 trials that involve ongoing conversion should be carefully crafted so as to not undermine preexisting efforts of state and local authorities.

AARP believes that the lessons that can be learned from the ongoing conversions could help guide the design and execution of any trials. Identification of best practices and the development of a NG911 conversion model would certainly be of assistance to those entities that are preparing, or would like to prepare, for the transition to NG911. However, the Commission should not impose a process that interferes with the role of state and local authorities, rather, the Commission should seek partnership with state and local authorities.

\(^{29}\) *Public Notice*, p. 7.
\(^{30}\) *Public Notice*, p. 7.
The Importance of Backup Power on All-IP Networks

The Public Notice also states:

“[w]e also seek comment on the impact of consumer migration to wireless and IP-based services that are dependent on commercial power and network resiliency and public safety services generally. Participants in the Commission’s recent field hearings following Superstorm Sandy consistently raised this issue and the need to establish adequate back up power solutions. How should this issue be integrated into the Commission’s technology trials and other data gathering efforts?”

Backup power is a critical issue facing this Commission (and the states and local 911 authorities and first responders) as the transition to broadband networks unfolds. As noted by the Pennsylvania Public Utilities Commission in comments recently filed before this Commission:

*Sufficient Central Power Backup* minimums should be established, including power backup and reasonable capacity requirements. These minimums should apply to all 911 Service Providers and the network, equipment, or facilities used to deliver 911/E911 access services, including IP and VoIP services and wireless services. The final rules must also consider the current power battery backup associated with certain retail broadband access services, such as FiOS, to determine whether it impacts 911 reliability and safety of the nation's citizens. The FCC's 911 NOPR may also be an appropriate forum to discuss the need for a public educational effort so that all consumers are aware of the capabilities of and any limitations to the current power battery backup associated with certain retail broadband access services, such as FiOS. These considerations can be explored through an industry-government working group including the states and their state utility commissions.31

NG911 (and current 911) services are only as robust as the underlying networks through which consumers reach 911, and power outages that disable broadband networks are an easily identifiable Achilles’ heel of reliable access to emergency services. The Commission is well aware that broadband networks are much more reliant on grid power than the traditional copper-based portion of the PSTN.32 To promote public safety, the Commission should set future

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benchmarks for the performance of broadband networks with regard to backup power based on the performance of the current state of the art, as exhibited by the legacy PSTN.\textsuperscript{33}

AARP believes that key questions about the reliability of broadband networks must be answered prior to full-scale migration to broadband. Trials or investigations could contribute to the exploration of this issue. For example, an investigation could be conducted that would result in the development of an engineering cost estimate of the delivery of backup power capabilities for broadband networks that are comparable to the backup power performance of the current copper-based PSTN. The answer to the question of what are the additional costs of creating a reliable broadband network is likely to vary based on the technology associated with the broadband distribution network—one answer may be associated fiber-based networks, another answer is likely to be associated with coaxial cable-based networks, and yet another with wireless-based broadband networks. This fact would suggest that alternative trials be pursued to develop representative profiles of the costs of delivering backup power that is comparable to the standards that have been traditionally associated with the PSTN. The cost-development phase of this trial should be followed by actual deployments of robust backup power systems for broadband networks.

In summary, IP-based networks should deliver reliable backup power so they can deliver reliable service, including access to emergency services. A state-of-the-art NG911 installation will be useless if consumers’ network connections go dead after commercial power goes out. The issue of backup power should be addressed in technology trials so that all parties interested in access to emergency services have a clear understanding of the impact of IP migration on the

\textsuperscript{33} Of course, the properly maintained and managed PSTN.
reliability of 911 services, and so that steps can be undertaken to ensure that NG911 services delivered over broadband all IP networks are at least as reliable as current technology.

**Wireline-to-Wireless Trial**
The *Public Notice* request comment on an extensive set of issues associated with a wireline-to-wireless transition:

“We propose to compare wireline and wireless offerings across a number of dimensions, including: quality and terms of service, price, product functionalities, E-911 performance, accessibility options, reliability, and potential carrier cost savings in the delivery of voice and data services to higher cost areas.”\(^{34}\)

While AARP has grave concerns regarding a forced migration from wireline to wireless service, AARP believes that the scope of the comparison identified in the *Public Notice* is appropriate—determining the impact on consumers, issues of quality, price, and functionality are all critical issues associated with any forced migration from wireline to wireless. However, AARP is also concerned about the larger impact of a wireline-to-wireless migration on economic development and access to technology. At a minimum, the end product of any technology migration should be an outcome where consumers receive services of similar or better quality at similar or lower prices. It is critical that these issues be fully explored *up front*, prior to the initiation of a trial. Fully vetting the likely impact of a wireline-to-wireless trial first will place consumer protection at the forefront.

The *Public Notice* indicates that “any trial would be voluntary for providers, (but) all consumers in trial regions would likely be affected, either directly or indirectly.”\(^{35}\) AARP is concerned regarding this approach as it is conceivable that some consumers could be placed at risk if they were compelled to participate in a wireline-to-wireless trial. As will be discussed further below, some components of the wireless technology migration that have been proposed

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\(^{34}\) *Public Notice*, p. 8.

\(^{35}\) *Public Notice*, p. 3.
by carriers do not deliver service functionality that is comparable with that available on the TDM-based PSTN, and other aspects of proposed replacement technology may be incompatible with technologies that currently ride “over-the-top” of the TDM-based PSTN. AARP believes that prior to the start of any trial, the impact on consumers must be fully understood. This requires information gathering from consumers, and also requires opt-out capability for consumers.

**Consumer Choice and a Wireline-to-Wireless Trial**

The Commission has a long history of promoting competition, which has advanced consumer choice. The Commission has also taken action to ensure that consumer choices, once made, are protected. To quote the FCC: “‘Slamming’ is the illegal practice of switching a consumer's traditional wireline telephone company for local, local toll, or long distance service without permission.”

36 The wireline-to-wireless trial envisioned by the Public Notice would appear to mandate customer switching from wireline service to a wireless-only alternative for local, local toll, and long-distance. The grant of permission by the consumer should be a prerequisite to participation in any wireline-to-wireless trial, otherwise the outcome will be Commission-mandated slamming. The Commission must not support trials that force consumers to abandon wireline alternatives.

Recent data shows that large numbers of consumers continue to purchase wireline voice services. Information from the Centers for Disease Control’s National Health Interview Survey (NHIS) points to the ongoing importance of wireline services. While wireless cord cutting has grown, wireline services are still selected by the majority of households. In the last half of 2012, 36 http://www.fcc.gov/encyclopedia/slamming
about 62 percent of households nationwide maintained a wireline telephone.\textsuperscript{37} Data from the NHIS also points to geographic differences in wireline service adoption. Nationwide, non-metropolitan areas exhibit cord cutting rates 7.6 percentage points lower than metropolitan areas (30.5 percent vs. 38.1 percent).\textsuperscript{38} This indicates that approximately 70 percent of all households nationwide in non-metropolitan areas continue to choose wireline voice services, and given the more limited reach of cable voice services outside of metropolitan areas, a substantial portion of these wireline voice services are provided by ILECs. Wireline service is also widely used by older households. For households aged 65 and above, 88.4 percent continue to maintain a wireline telephone.\textsuperscript{39} All of these statistics reflect consumer choice based on consumers’ assessment of the value offered by wireline services. It is clear that the majority of households continue to find wireline voice services to be an important component of their overall set of communications services.

\textbf{The Public Notice Is Unclear Regarding the Geographic Scope of the Wireless-to-Wireline Trial}

The \textit{Public Notice} states:

\begin{quote}
We propose to test these new service offerings in: (1) at least one geographic area within each participating LEC’s service territory; and (2) at least one geographic area outside of each participating LEC’s wireline service territory.
\end{quote}

This portion of the \textit{Public Notice} can be read as requiring wireline consumers in a non-participating ILEC's service area to give up their wireline telephone, even though their ILEC has no plans to abandon wireline service. If this is the intent of the \textit{Public Notice}, AARP is concerned about the impact on competition and consumers. Would such a trial, assuming for the

\begin{footnotesize}

\textsuperscript{38} \textit{Id.}

\textsuperscript{39} \textit{Id.} Table 2, p. 8.
\end{footnotesize}
sake of argument that a consumer volunteered to participate, allow the consumer to choose from among competing wireless carriers that offer fixed wireless service for the trial, or bind the consumer to taking fixed wireless service from the wireless affiliate of the “participating ILEC”? Such a trial would raises significant competitive issues in addition to the issues associated with service functionality. The Commission should clarify its intent with regard to the geographic scope of the wireline-to-wireless trial.

Optional or Mandatory Participation in a Wireline-to-Wireless Trial?
The Public Notice raises the issue of optional vs. mandatory participation in a trial:

We seek comment on whether customers that participate in such a trial should have the option of wireline or wireless service during the trial or whether the LEC should be able to require all customers in the LEC service territory trial area to move to a wireless-only product.  

As discussed above, many consumers choose to purchase both wireless and wireline services, with rural areas showing higher rates of wireline subscription. This consumer choice must be respected. A trial should not prevent consumers from purchasing services that they choose and currently rely upon. As will be discussed further below, the Commission must also acknowledge and evaluate the many products and services that currently run “over-the-top” of the wireline PSTN. Mandating that consumers participate in a wireless-only trial would eliminate these technologies, and force consumers onto more expensive wireless alternatives, or leave them without the services and functionality that they previously had.

40 Public Notice, p. 9.
How does the Wireline-to-Wireless Support Broadband Universal Service Objectives?

It is also important to step back from the focus of the technology trial and consider the merits of the wireline-to-wireless transition in a potential post-trial world. Other technology transformations have affected all households (for example, digital television became a nationwide standard). The carrier plans that the Public Notice references are not system-wide, but only target areas where costs are alleged to be too high, or otherwise do not fit with the carrier’s wireline vision.42 Conducting a trial that would pave the way for geographic differences in service availability raises questions regarding universal service goals and economic development. For example, how does a wireline-to-wireless migration affect the Commission’s objectives, as stated in the National Broadband Plan, “of 100 percent of U.S. households having access to “affordable access to actual download speeds of at least 100 Mbps and actual upload speeds of at least 50 Mbps by 2020””?43 Prior to conducting any wireline-to-wireless trial, the Commission should fully consider the path forward, and verify that the technologies deployed by carriers are consistent with the Commission’s objectives of affordable and high quality broadband service availability.

Service Functionality Must Be Protected During a Wireline-to-Wireless Trial

With regard to proposals for wireline-to-wireless migration, AARP is also concerned about the impact on service functionality. The wireless Verizon Voice Link® deployment on Fire Island,44 and similar AT&T offerings, provide a service that has limited functionality as compared with wireline services, including more restrictive 911 offerings. These wireless

42 “For example, Verizon is currently replacing copper based services damaged by Hurricane Sandy on Fire Island, New York with wireless-only voice and data products. For its part, AT&T has indicated that it intends to seek authority to serve millions of current wireline customers, mostly in rural areas, with a wireless-only product.” Public Notice, p. 8.
43 National Broadband Plan, p. 9.
44 http://www22.verizon.com/about/community/fireislandny.htm
offerings do not support alarm systems, healthcare monitoring, personal safety alarm systems, or fax. As explained by AT&T, regarding the capabilities of its “Wireless Home Phone” product:

The AT&T Wireless Home Phone device is designed to provide service that is consistent with other AT&T wireless devices, but AT&T does not represent that the Wireless Home Phone service will be equivalent to landline phone service…. 911 calls are routed based on the wireless network’s automatic location technology, but you may have to provide your home address to emergency responders. *AT&T recommends that you always have an alternative means of accessing 911 service from your home phone or business during a power or network outage*. Corded or cordless landline home phone equipment is not included. *AT&T Wireless Home Phone not compatible with services requiring data including but not limited to home security systems, medical monitoring systems, credit card machines, IP/PBX Phone systems, or dial-up internet service.*

It is unclear to AARP how, in the context of a wireline-to-wireless trial, a consumer could follow AT&T’s recommendation of maintaining an alternative means of accessing 911 services from one’s home or business. Would the ILEC continue to provide access to emergency services via their wireline networks while the trial was underway? Access to emergency service should not be compromised as a result of a wireline-to-wireless trial, and the Commission must carefully design any wireless-to-wireline trial so that public health and safety is not placed at risk. This issue points to the appropriateness of involving state and local 911 officials and emergency responders in the design of any trial. If a trial would result, as AT&T indicates, in the use of less effective automatic location technology and the requirement that consumers provide their home address to emergency responders, such a change could have a profound impact on the performance of local emergency response systems.

AT&T and Verizon both indicate that their fixed wireless alternatives are not compatible with a variety of technologies that are utilized in homes and businesses. The replacement of these technologies with alternatives as networks migrate to broadband over time is inevitable,

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however, within the context of a trial, the treatment of these technologies is more complex. As the Public Notice indicates, the trials will come to an end, and consumers may migrate back to prior arrangements. Will, as part of the trial, consumers be migrated to replacement technologies that enable all of the functions that previously relied on the PSTN (e.g., medical alert systems, fire and burglar alarm system, credit card processing equipment)? Will there be costs to consumers of these temporary replacement services? The Public Notice is silent on this matter. These are complicated issues, and the Commission must ensure that consumers are not unfairly disadvantaged, nor placed at risk, due to a wireline-to-wireless trial.

**Disclosure and Switching Back to Wireline**

The Public Notice states:

Furthermore, we seek comment on whether LECs participating in the trial should disclose any differences between a customer’s existing wireline and new wireless service prior to the customer switching. These differences may include price, data usage allowances, terms of service, 911 capabilities (including location accuracy), accessibility, calling features, incompatibilities with fax machines or other customer premises equipment, or any other differences.

AARP is deeply concerned by the implications of this question. The Commission must specify that service degradation and price increases should not result from a technology trial. Instead, the Public Notice appears to suggest that wireline-to-wireless trials could be allowed to go forward prior to establishing the minimum level of service associated with the wireless offering, that prices may be higher, that data usage charges may drive consumer bills up, and that functionality of critical features, such as 911 capabilities, or accessibility technology may suffer as a result of the trials. The approach suggested in the Public Notice places the cart well before the horse. There is no need for a trial to understand the impact of higher prices and degraded

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46 Public Notice, p. 9.
47 Public Notice, p. 9.
features on consumers—harms will definitely arise. Such a transition would disadvantage consumers, and place public health and safety at risk.

The technology transformation should result in “better and cheaper” outcomes for the technology transformation to be consistent with the public interest. The Commission must establish the level of functionality that will be provided to consumers during a trial, and ensure that rates also do not increase during a trial. On the other hand, to the extent that the Commission is set on experimenting with the degradation of basic service, and allowing carriers to charge the same or higher prices for the degraded service, consumers must be fully informed of the changes that the trials will introduce so that they can have the opportunity to protect their interests. This Commission cannot anticipate the varied technologies that consumers are currently using that rely on wireline functionality enabled by the PSTN. If unexpected changes occur and some of those functionalities are eliminated, public health and safety may be harmed.

As admitted by Verizon in its description of its fixed wireless Voice Link® service:

Verizon Voice Link is not compatible with monitored alarm security systems, fax machines, DVR services, credit card machines, or medical alert services (e.g. Life Alert).48

Thus, absent full information, consumers could find their alarm systems and premise equipment failing, businesses could be unable to process credit card purchases, and those that rely on medical monitoring could be placed in harm’s way.

The above discussion also points to the importance of the involvement of state and local authorities with any technology transition trials. State commissions continue to have jurisdiction over local exchange service rates, and the trials should not result in rate changes that are inconsistent with state requirements. Furthermore, the performance of 911 services affects consumers directly, but also affects the safety and performance of first responders.

48 http://www22.verizon.com/about/community/fireislandny.htm
Representatives of state and local emergency agencies and representatives of first responders must be fully informed of changes in the performance of 911 services that may result from proposed trials, and must be able to influence the design of any trial to ensure an outcome that does not degrade current 911 system performance or otherwise endanger public safety.

The Public Notice also states:

We propose that customers would be informed of when they will be allowed to switch back to their previous wireline products and that they may do so at no charge for some pre-established period, including after the trial period end date.

This question appears to suggest that consumers will have no choice regarding their participation in a trial. As discussed above, many consumers are choosing to purchase both wireless and wireline services, and it is not clear why this exhibited consumer choice should be forcibly changed. To the extent that consumers are required to participate in the trials, consumers should not face costs for choosing to revert to the services that they had previously selected.

**Degraded Wireline Networks?**

The Public Notice states:

We are also interested in learning about the potential benefits for consumers/businesses of the transition to wireless, including any improvement in voice quality in areas with degraded wireline networks, access to broadband for the first time in areas with no wireline broadband service, and potential improvements in network reliability.49

This is a core foundational question that should be fully explored prior to the initiation of any wireline-to-wireless trial. The Commission should identify both the costs to consumers of the proposed transition, and any benefits that may arise. While the final answers may not be available until the end of a trial, the Commission should conduct a preliminary evaluation of these issues prior to the start of the trial, and if it appears that the costs to consumers (including the impact of service degradation) exceed the expected benefits, the trials should not go forward.

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49 *Public Notice*, p. 8.
This question also highlights the importance of service quality and begs the question of why wireline networks have been allowed to “degrade” in the first place. The solution to the problem of degraded wireline networks should not be limited to forcing consumers to abandon wireline service. Improving the quality of existing wireline networks should also be considered as a solution. When considering the alleged need for a wireline-to-wireless trial due to degraded wireline networks, the Commission should be careful to distinguish between proposed stopgap measures and permanent solutions. Long-term solutions should be designed with the objectives of the Commission’s *National Broadband Plan* fully in mind. Whether fixed wireless services such as those proposed by major carriers are consistent with the data speed objectives stated in the *National Broadband Plan* is less than clear to AARP.

While gaining access to broadband for the first time would certainly be entered in the benefit column of an assessment of a wireline-to-wireless trial, replacement of wireline DSL with a wireless broadband alternative will require close scrutiny. Wireless broadband alternatives are typically metered and more costly to consumers than wireline broadband, thus limiting the usefulness of wireless broadband for many applications, such as streaming video.\(^{50}\) Wireline-to-wireless migration should not result in degraded broadband capabilities. Nothing could be further from the spirit of the Commission’s *National Broadband Plan*.

**Term of the Wireline-to-Wireless Trial**

The *Public Notice* states:

> We seek comment on whether such a trial would result in obtaining useful information and how long it should last.\(^{51}\)

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\(^{50}\) Verizon’s wireless broadband product, HomeFusion\(^6\), offers metered pricing starting at $60 per month for 10GB of data. [http://www.verizonwireless.com/b2c/homefusion/hf/main.do](http://www.verizonwireless.com/b2c/homefusion/hf/main.do)

\(^{51}\) *Public Notice*, p. 9.
For any trial to generate useful information, the Commission must define the parameters to be examined, and gather data from the trial. To the extent that consumers volunteer to participate in the proposed trials, data gathering methods and objectives should be defined up front, with input from representatives of the affected parties. The Public Notice mentions the use of a customer satisfaction survey as a means to assess the wireline-to-wireless trial.\footnote{Public Notice, p. 9.} AARP believes that well-designed survey research can contribute to the Commission’s understanding of the impact of the trial on consumers that participate in the trial. However, it is also critical that consumer decisions to decline to participate in the trial are also counted as part of the data, and customers who decline to participate should also be surveyed so the Commission can gain data on why consumers may want to retain a wireline connection.

**Data Collection and Wireline-to-Wireless Trials**

The Public Notice also asks:

Should the Commission, and/or state or Tribal entities, collect data regarding customer churn, subscriber counts, disconnects, gross additions, average revenue per user (ARPU), counts of customers switching back to wireline service, customer service complaints, service visits and actual customer data speeds, by month and separately for each geographic area and product? Are there other indicia related to voice and broadband deployment and adoption, competition, and investment that the Commission should track during the trial period?\footnote{Public Notice, p. 9.}

With regard to the entities that collect data, AARP believes that state and/or Tribal entities should be involved in the administration of all wireline-to-wireless trials, and should have the discretion to collect data in addition to the data collected by the Commission. AARP believes that the areas quoted from the Public Notice above are reasonable areas for data collection, however, the structure of the trial should lead the process of data collection. For example, the quoted passage identifies “customer churn” as a potential data point. This suggests that
consumers would be able to move between service providers during the trial, which also suggests that consumers have alternative sources for the fixed wireless service that is replacing wireline during the trial. To the extent that there are competing providers for the wireless alternative to the ILEC’s wireline service, tracking churn might be useful. However, churn data would be less informative if consumers had no choice of service provider. While the quoted passage mentions information on ARPU, data should also be collected on the change in customer bills resulting from the trial, as a trial-oriented report of ARPU would not capture the price changes experienced by consumers.

With regard to additional data points on which the Commission should focus, AARP believes that the Commission should design data gathering approaches that address the potential impact of the trials on the elderly and individuals with disabilities. These more vulnerable groups may be affected more profoundly by the elimination of wireline service, and the Commission should fully understand the needs of these individuals.

**Geographic All-IP Trials**

Pointing to the AT&T IP-transition petition, the Public Notice correctly states that there is significant overlap between the issues raised in the AT&T IP-transition petition and issues raised in the Public Notice. AARP filed extensive comments regarding the AT&T and NTCA petitions, and refers the Commission to those comments, which have been attached to this document. AARP encourages the Commission to review AARP’s comments that were filed in that proceeding, as well as comments that were filed by NARUC, NASUCA, and the State Members of the Federal-State Joint Board. Of key importance regarding AT&T’s request is the
preservation of state authority, the Commission should not preempt states in an effort to undertake geographic all-IP trials.

AARP believes that the Public Notice correctly requests additional information regarding what AT&T’s proposal means. Specifically, the Public Notice states:

In presenting a detailed roadmap for how such a trial would work, carriers, at a minimum, should list: (1) all of the services currently provided by the carrier in a designated wire center that the carrier would propose to phase out; (2) estimates of current demand for those services; and (3) what the replacement for those services would be, including current prices and terms and conditions under which the replacement services are offered.54

AARP believes that this list is a reasonable start for questions to flesh-out the proposal for a wire-center trial. However, this list completely ignores the overlap of state and federal jurisdiction over matters in the proposed all-IP trials that were advanced in the AT&T Petition. In its Petition, AT&T was clear that it thought that to carry out the geographic all-IP trials that state regulations would need to be preempted:

The Commission also has clear authority to preempt any state regulatory obligations that would interfere with these experiments or subvert the most important objective on the Commission's agenda: a smooth and rapid transition to the all-IP broadband environment of tomorrow.55

Just how the geographic all-IP trials would be structured in light of the potential conflict with state regulation in the context of the Public Notice’s envisioned framework is unclear. AARP does not believe that preemption is the appropriate path, nor would holding trials only in states that have eliminated state oversight of telecommunications markets generate a representative view of transition issues. The Commission has previously declined to adopt industry proposals regarding preemption of voice services in its November 2011 Connect America Fund Order:

54 Public Notice, p. 10.
We decline to preempt state obligations regarding voice service, including COLR obligations, at this time. Proponents of such preemption have failed to support their assertion that state service obligations are inconsistent with federal rules and burden the federal universal service mechanisms, nor have they identified any specific legacy service obligations that represent an unfunded mandate that make it infeasible for carriers to deploy broadband in high-cost areas. Carriers must therefore continue to satisfy state voice service requirements.\textsuperscript{56}

AARP does not believe that there have been any events in the intervening period that should cause the Commission to reverse course on this matter. As noted by the Commission in the

\textit{Connect America Fund Order}:

The first performance goal we adopt is to preserve and advance universal availability of voice service. In doing so, we reaffirm our commitment to ensuring that all Americans have access to voice service while recognizing that, over time, we expect that voice service will increasingly be provided over broadband networks.\textsuperscript{57}

Voice services continue to fulfill an essential component of state and federal statutory objectives, and the transition to broadband does not undermine this fact.

Beyond the critical issue of the role of the states in any geographic all-IP trial, it would be reasonable for the Commission to collect additional information from the carrier involved regarding the technological characteristics of the replacement services. For example, AT&T has indicated that a component of its proposed trial could involve, for some wire centers, a migration from wireline to wireless service. Current wireless offerings from major carriers, including AT&T, are not IP-based services. Would the geographic all-IP trial deliver voice over LTE? Or would the trial be a mix and match affair where some consumers are served with IP-based technology, and others are not?

Any carrier proposing a geographic all-IP trial should also provide specific details on how the proposed migration would take place, especially with regard to customer notification,

\textsuperscript{56} \textit{Connect America Fund Order}, §82.

\textsuperscript{57} \textit{Connect America Fund Order}, §49.
and procedures for customers to opt-out of the trial. This Commission has a long history of protecting consumers from unauthorized changes of service providers and/or services.\(^{58}\) As a result, an all-IP trial should respect consumer choice and be based on informed consent, with opt-out capabilities. The questions posed by the Public Notice also overlook the potential impact of the wire-center trial on competition. Careful consideration of the competitive impact of carrier-specific all IP trials should be evaluated prior to the start of a trial. AARP is hopeful that the questions posed in the Public Notice indicate that the Commission intends to take a proactive role in identifying the objectives of the trial, designing the trial, and collecting and analyzing the data from the trials. AARP is also hopeful that the Commission will fully involve the states in the process.

**Improving Access for People with Disabilities**

The Public Notice asks for recommendations regarding what type of trials should be conducted to assess the potential for improving access for people with disabilities, specifically pointing to speech-to-text trials.\(^{59}\) While AARP supports specific trials such as those associated with speech-to-text, AARP recommends that improved access for people with disabilities should be a foundational element for the design of trials, and it should also be high on the Commission’s priorities as the technology transition unfolds. For example, to the extent that NG911 and geographic all-IP trials are conducted, components that address access for people with disabilities should be incorporated. A carrier proposing a geographic all-IP trial should identify how the trial will impact individuals with disabilities, and also commit to deploying assistive

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\(^{58}\) See, for example, *In the Matters of Empowering Consumers to Avoid Bill Shock Consumer Information and Disclosure*, CG Docket No. 10-207, CG Docket No. 09-158, Order, December 17, 2010. See also, 47 C.F.R. §64.100 et seq.

\(^{59}\) Public Notice, p. 11.
technologies during the trial. Input from the disability community should be sought as trials are planned and implemented.

It is reasonable to expect that new assistive technologies will be developed as the broadband platform expands its reach, and market forces may not deliver either broadband or new assistive technologies in a manner that is consistent with the public interest.\(^6\) Policy action such as support for high-quality broadband, and programs to ensure that new assistive technologies are made available to those who cannot afford them, may be needed to ensure that all Americans benefit from the broadband technology transformation.

**Consumer Protection and Universal Service Trials?**

The *Public Notice* asks whether there are specific trials that should focus on consumer protection and universal service.\(^6\) As AARP mentioned at the beginning of these comments, the *Public Notice* has placed issues in silos, which may be appropriate for ease of administration. However, compartmentalizing consumer protection and universal service objectives is not appropriate. Consumer protection and universal service objectives must be the guiding principles that are at the core of any trials. As the discussion above indicates, a weakness of the *Public Notice* is its failure to adequately link the proposed technology trials with consumer protection and the universal broadband service objectives identified in the *National Broadband Plan*.


\(^6\) *Public Notice*, p. 11.
Conclusion

Technology trials will only yield benefits if the Commission leads the process, rather than following the plans of carriers. AARP believes that policies that promote competition, investment, and innovation are highly desirable, and that consumer protection and the availability of high-quality services are paramount. For the trials to contribute to these objectives, the significant clarification and increased detail related to matters of consumer protection, the role of the states, data collection, and protection of competition discussed above must be incorporated into the planning process for any trial. Foremost, the objectives of the trials stated in the Public Notice must be oriented toward consumer protection and universal service goals, especially the Commission’s revised vision for universal service stated in the National Broadband Plan.