STATEMENT

of

R. PAUL WAITS
PRESIDENT, RITTER COMMUNICATIONS

to the

COMMITTEE on COMMERCE, SCIENCE AND TRANSPORTATION
UNITED STATES SENATE

"Universal Service: Transforming the High-Cost Fund for the Broadband Era"

June 24, 2010

INTRODUCTION

Chairman Rockefeller, Ranking Member Hutchison, and distinguished members of the Committee, my name is Paul Waits, and I serve as President of Ritter Communications. I sincerely appreciate the opportunity to provide comments and appear before the Committee, and I want to commend the Committee members for their attention to the issues surrounding the development of telecommunications in general, and the future of broadband Internet services. My comments will focus on the latter as it relates to the preservation and extension of rural consumers' functional access to the Internet, offering observations, information and recommendations in reaction to the policies outlined in the Federal Communications Commission's comprehensive broadband policy blueprint, i.e., the National Broadband Plan ("NBP").

I also want to commend the FCC in its thoughtful consideration of a very complex, difficult and interrelated set of issues. I believe that the NBP document includes some very sound policy recommendations, and on the whole, represents an acknowledgement and positive response to the present and emerging need for reformation of our systems of support for the national telecommunications infrastructure, especially the rural infrastructure. However, I and a growing number of rural interests, have strong concerns regarding specific elements of the plan, and believe such could have unintended and adverse consequences for rural consumers, as we digest the document and overlay its recommendations on the fabric of our diverse rural reality.

WHO IS RITTER COMMUNICATIONS?

My standing in this regard includes my present responsibilities as leader of a small, diversified rural carrier in northern and northeastern Arkansas. Our company operates two independent telephone companies in two very disparate rural locales: one in the Mississippi River Delta and one across the state in the Ozark Mountains. We also operate a number of rural cable TV franchises, and actually compete with other telephone companies, providing competitive broadband access and telephone services in small towns and hamlets across northeastern Arkansas. Finally, we operate a competitive local exchange carrier ("CLEC") in a larger town not far from our rural operations, where our focus is service integration and custom solutions, as well as commodity telephone and Internet access services. I mention all this to point out that our interest in these issues is quite diverse and somewhat unusual for a smaller company, given that we have a vested interest in the outcomes affecting the customers of rural telephone companies, rural cable TV companies and urban CLECs. It forces us to be more holistic and perhaps less myopic when trying to establish our opinions and beliefs regarding appropriate government policy, as we all look for balance among competing interests.

THE RURAL BROADBAND COALITION

I am also here representing an ad hoc group of rural carriers, referred to as the Rural Broadband Coalition. This is a recently-formed alliance of rural constituents from diverse areas with diverse needs and backgrounds, united under a common concern for how the imminent changes in telecommunications policy will affect rural America. Although we are members of the various rural telephone and cable TV trade associations, we are not nor intend to be a formal trade association.

EXECUTIVE SUMMARY

Mr. Chairman, allow me to quickly summarize my testimony, and then elaborate on a few of the points as time permits. In summary, we believe that:

1) Reforms are needed to preserve the goal of universal telecommunications service and maintain a sustainable system of rural support. We are not here to try to protect the Status Quo; we are here to argue for RESPONSIBLE REFORM.

2) The solution must include restoring the contribution base for the USF fee to effectively support the original intent of what constitutes universal service, must include *all* telecommunications service in its revenue base for collections, and be neutral to changes in technology. The amount that individuals pay on their telephone bill to support universal service is simply too high and unsustainable. This is imperative to shore-up the system, economically and politically.

3) Whatever changes are made to the nation's current rural support system must be orderly and predictable, avoiding unintended and adverse consequences that could result from "flash cuts" or approaches designed to short-circuit the market, such as reverse auctions.

4) The standard for universal service contained in present law should also apply to broadband access services, i.e., *comparable rates and services* between urban and rural constituents, in lieu of the proposed disparity in broadband service goals contained in the NBP.

5) The Federal USF is part of a larger and long-term system of rural support. History is repeating itself as the nation re-tools the networks for an all-IP infrastructure, and we ignore it at the peril of rural customers across the Nation.

6) Because of their unique focus and commitment on rural service areas, smaller companies have an important role to play in the extension and preservation of rural broadband access, and require reasonable and real protections from discrimination in the availability and price of certain wholesale inputs.

7) There is no silver bullet or national panacea for affordable and universal broadband access. No one size or method of delivery will fit all needs. The solution lies in an on-the-ground approach that considers the widely diverse circumstances that exist among the thousands of discrete geographic pockets that collectively create the "availability gap."

With regard to the National Broadband Plan **as now proposed**, we must strongly recommend that the Committee use its very significant powers and influence to correct what we see as major deficiencies in the Plan:

1) The Plan relegates rural consumers to an inferior and inadequate broadband service standard that in the long-term will create a "digital divide;"
2) The Plan makes faulty and dangerous assumptions about the ability of wireless to solve all problems for all people;
3) The Plan assumes that in many rural areas a one-time investment in capital expenditures alone will meet rural customers' needs, although broadband network providers and the customers they serve require operational support for on-going operating costs and maintenance, for customer care and for long-term growth in the number of broadband connections;
4) The Plan would undermine some important consumer protections enforced by the states under the obligations known as Carrier of Last Resort;
5) The Plan's implementation notice contemplates an ill-conceived federal auction which assumes "bigger is always better." In rural America we believe very often smaller is better and more effective; and finally,
6) The Plan, as currently proposed, violates the Telecommunications Act this Congress passed that requires that USF funding be sufficient and predictable, and result in services that are comparable between urban and rural customers.

The Plan seriously fails on these issues.

We ask Congress and the FCC, as a matter of public policy and sound precedent, to reaffirm the gains we have made as a nation in extending services and technologies in rural areas, to preserve those gains to prevent harm to these groups of rural citizens, and extend a policy of expansion with the goal of reasonable comparability in rates and services among all communities.

BACKGROUND: HOW DID WE GET HERE?

The standard for Universal Telecommunications Service should be the creation and maintenance of reasonable comparability in the availability and in the financial accessibility of telecommunications services, including broadband access services, between urban and rural areas of the nation.

The basic proposition of the National Broadband Plan ("NBP") related to universal access to broadband services is that the current regulatory mechanisms, such as the Federal Universal Service Fund ("USF"), should be replaced with a new mechanism(s), e.g., the Connect America Fund, to provide financial support for the extension of broadband access where such access is not available today, or not available at the speed or price that would meet consumers' Internet access requirements. While this appears to create new policy, in reality, it is an extension of existing public policy at its most fundamental level, given that the goal has been for many decades the creation and maintenance of *universal telecommunications service*, i.e., universal connectivity to the public telecommunications network.

I want to emphasize that the use of the term "telecommunications" throughout my testimony is to refer to the generic act of communicating over a distance, e.g., across the street, across the state, across the world. I am not using nor do I intend to use this term as it is defined in federal statute or FCC regulations, nor do I imply or advocate any form or degree of regulatory oversight of all or some subset of the networks, technologies or services with which humans telecommunicate.

The public network has been evolving in form and function, and whether one is electronically traversing the public switched telephone network talking to grandma, or the information superhighway doing global climate research, or merely watching the latest re-runs of *Desperate Housewives*, it is all now converging into a telecommunications infrastructure that is losing traditional distinctions, such as "voice," "data" or "video." When one considers the goal of universal telecommunications services, and the public's evolving telecom needs, then one must embrace the fact that broadband access to the public Internet is emerging as the common denominator in a world where "voice" and "video" and "data" are applications riding upon this common transport infrastructure. In this sense, the NBP is on the right track in that rural support for universal service should and must shift from a myopic focus on voice services, and extend and expand to support functional and adequate (high-speed, or "broadband") access to the public Internet.

There is a long-standing policy goal in the current statutes that codified the purpose and character of the USF. Section 254(b)(3) requires that "consumers in all regions of the

nation, including low-income consumers and those in rural, insular and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas."

This policy of comparability was not created in a vacuum by Congress, who recognized and preserved a system of support that had been in existence in various forms for decades, as well as recognized that the overall economic health of the nation, as influenced by the overall strength of its telecommunications infrastructures, was increased as connectivity increased. This national policy affirmed that the needs and uses of telecommunications services in the rural areas of the country were at least comparable, and in some contexts more vital, when compared to the needs and uses by consumers and businesses in the urban communities.

A DIGITAL DIVIDE CANNOT BE JUSTIFIED.

One of the proposals of the NBP that has come under criticism by those concerned with the long-term impact on rural constituents is the disparity in the broadband access goals expressed in the plan. In particular, the plan's goals call for a download speed of 100 megabits per second ("mbs") service to 100 million households, presumably in more densely-populated locales, and for a minimum download speed of 4mbs service for those else residing in more rural locales. Both of these goals appear arbitrary and lacking an assessment of functional adequacy over the life of the plan's proposed transition period. My experience has been that we get around to re-writing these rules about once every ten or fifteen years. Although the plan suggests this standard will be reviewed and adjusted, it is more likely that economic and political inertia will prevent any meaningful reversal of this precedent. The urban market has already moved beyond download speeds of 4mbs, so this goal already appears inadequate to fulfill a comparability standard.

We believe the FCC should instead recognize and affirm that it will be consumers and businesses, users of these services, who will determine what will be functional, economic, useful, demanded and desired. As in the past and continuing through the future, the need for more access speed will continue to evolve in ways that are difficult to fully predict. However, it can be said with relative certainty that the demand for speed will increase, and the needs of rural residents and businesses will be no less demanding or important, no less sophisticated or productive, and no less deserved or desired than the needs of their brothers and sisters residing in urban areas.

Moreover, and noted by the lawyers in this debate, such disparity clearly contradicts the controlling statute (Section 254 of the Communications Act as amended), which is

crystal clear on Congress' intention to create and maintain a system of support that preserves comparable availability and financial accessibility of telecommunications services across our very geographically diverse nation. The context of this policy's intention was the Telecom Reform Act of 1996, which codified and expanded an existing system of support in direct recognition that the move toward opening local exchange telephone services to competition in the mid-1990's, and the move toward deregulation, would naturally cause a loss of support in high cost areas unless an explicit affirmation was made by government that would prevent such harm to rural consumers. It was recognized that competition would naturally drive rates to cost, absent some intervention, and such would result in extraordinary rate increases and restricted services in high cost terrains. The concern now is that the FCC appears to have essentially ignored this aspect of the law, or more importantly, appears to have abandoned the fundamental tenet that comparable services between urban and rural areas are essential to the public's collective convenience and necessity.

The arbitrary assignment of 4mbs to the rural areas appears to imply that 4G wireless technologies can become the panacea for ubiquitous and cheap broadband access. Such does not, in our view, reflect a bona fide and responsible concern for the actual broadband access requirements of rural medical clinics, rural schools, rural government, rural businesses, rural residents working from home, rural residents taking on-line courses, and rural residents accessing high-definition television programming over the Internet, in addition to others.

Just this month, our company signed a contract to provide 50mbs of dedicated Internet access to the Cross County School System, a consolidated rural school near Cherry Valley, Arkansas. This school is located miles from the nearest community amid farm fields, and is raising the bar in the use of computers and technologies in the classroom and in the homes of their students. With 1.2 computers per student, including laptops for home use, they indicate their Internet access needs are expected to increase to 100mbs. Fiber optic cable is the only solution for this rural location.

Telecommunications technology inherently knows no boundaries. It does not know when you exited the interstate in a rural county, and it is by some measures of greater benefit in rural communities because of greater distances and higher cost of transportation. The very benefits that are lauded by the FCC in the NBP draft, such as extending educational opportunities, productivity of medical systems and technologies, access to global markets, etc., are arguably more intense and more prevalent in the rural communities across the nation. A goal of limiting support to an inferior standard (i.e., 4 mbs) in order to presumably favor a class of carrier, while potentially and ironically *creating* an availability gap for legitimate and pressing needs for services requiring higher bandwidths, is patently incongruent to the overarching purpose of any *national* broadband plan.

We ask Congress and the FCC, as a matter of public policy and sound precedent, to re-affirm the gains we have made as a nation in extending services and technologies in rural areas, preserve those gains to prevent harm to these groups of rural citizens, and extend a policy of expansion with the goal of reasonable comparability to all communities.

USF REFORM MUST BUILD UPON AND IMPROVE THE EXISTING MARKETPLACE.

USF is part of a larger and long-term system of rural support. History is repeating itself as the FCC and Congress now grapple with how to rebalance the competing interests between rural and urban constituents in the wake of an emerging and growing "availability gap."

In the decades prior to the Divestiture of A.T. &T. in 1984, advances in long distance technologies, namely the invention of microwave communications and automatic switching systems, were bringing down the cost of long distance services. Also, during these earlier years of telephony, the goal of universal telecommunications services was still simply a goal, with the rural and low-income areas of the country without service or with very expensive service because of the high cost. There was a conscious effort and decision by the industry and the regulators to keep long distance rates high, and use the profits from this service to implicitly subsidize the rural and residential local telephone rates. In a closed and regulated system, this approach worked well, and did the job of extending services at comparable rates to the rural consumers of the Bell System, as well as to the customers of the independent telephone companies.

However, this closed system was broken open by a court decision that ruled in favor of a long distance start-up company called MCI, who had built a microwave route from St. Louis to Chicago. This long distance facility was being marketed directly to businesses under the *Execunet* brand. A.T. &T. took MCI to court, arguing that it had the exclusive franchise for telephone service in exchange for having its rates and services strictly regulated. In the *Execunet* decision, the court ruled in favor of MCI, and thereby opened the long distance market to competition. The market forces of competition naturally push rates toward cost, especially if such rates are being kept at an artificially-high level to fulfill a macroeconomic policy goal. Thus, the beginning of the end of this policy alliance of regulation, industry and universal service began to unravel as long distance competition put pressure on carriers to reduce the long distance rates to the actual and declining cost.

Intercarrier compensation for long distance traffic is still an important part of rural service support.

Prior to the Divestiture of A.T.&T., the independent telephone companies received their share of the long distance revenue from a process referred to as cost separations and

settlements, wherein their costs were allocated to long distance using cost allocation formulas approved by the FCC. The basic premise of such cost allocations were to allocate the local network costs based on relative usage between local and long distance services. Over time, allowances were incorporated to reflect the higher unit costs associated with less densely populated, rural areas typically served by the smaller independent telephone companies.

After Divestiture in 1984, the same cost allocation principles were applied by the FCC to determine the structure and level of carrier access charges that long distance companies would pay to the local exchange carriers for access to the local network, replacing the prior system of cost settlements with tariffed carrier access rates applied to long distance minutes of use. From the moment such access charges were first created in the mid-1980's, there has been a constant push to reduce them. The push has come primarily from the long distance carriers wishing the access rates to be zero, as well as from the FCC, who through this period, wanted to reduce interstate access and long distance rates. As evidenced by the NBP, this is still a goal of the FCC.

The framework that we now refer to as the USF was created in the context of such long distance rate reform during the 1980's, and was originally referred to as the High Cost Fund. This fund was created as a supplemental source of revenue for high cost areas in the regulatory context of reducing access charges, and shifting cost recovery to the federal subscriber line charge (local flat rate to consumers). It was and is based on the relationship of an area's average cost per connection with the national average cost. If an area's cost per connection was significantly greater than the national average, it was entitled to compensation from the high cost fund.

It cannot be overemphasized that the high cost fund then, and the universal service fund now, even as it has evolved in reaction to shifting policies and industry trends, is still a supplemental fund and does not alone provide the total support to many rural areas. There is yet a significant amount of support still being provided in the form of tariffed carrier access rates, both state and federal, which for the smaller rural carriers are generally higher than such rates for large, urban carriers.

However, in a world of so-called "free" long distance over the Internet, and Internet traffic not being subject to such access rates, this carrier access rate disparity is not sustainable. This has led to the call at the FCC for reform in such intercarrier compensation arrangements, as this source of support continues to decline as long distance traffic migrates to wireless services and to Internet voice applications providers, or gets misclassified as such by the long distance providers to avoid the higher cost of traditional access.

USF REFORM MUST BE MULTI-FACETED, INCLUSIVE, AND RECOGNIZE ACCESS CHARGES' ROLE.

This leads us to another concern we have with the NBP and its impact on rural consumers. While the plan acknowledges that much rural support comes from access rates and the need to reduce these over time to recognize the lack of sustainability of disparate rates, there is little provided in the plan to recognize the dependence some rural service areas have upon the traditional access charge system. From the perspective of the rural consumers in these areas, a loss of such support in many cases could be as great, or greater, than the loss of USF support, which would have a deleterious effect on the continued growth and availability of voice and broadband access.

The federal USF is part of a larger, long-term and largely successful system of rural support, which also included support from carrier access charges (intercarrier compensation) that, today, are not part of the USF. Although the NBP acknowledges that intercarrier compensation has been a source of financial support for rural consumers, its treatment of the issue appears unbalanced, i.e., including an affirmative and unambiguous goal of reducing interstate and intrastate carrier access rates to zero, but only acknowledging the "potential" for a need to include any such loss of this type of rural support from the replacement Connect America Fund.

<u>History repeats itself.</u>

It should be noted that most rural support before the implementation of the USF was implicitly provided in the form of geographic rate averaging and value-of-service pricing by the state regulators, who historically kept residential and rural rates at a "residual" level after accounting for higher margins from long distance, urban services, and services to businesses. These regulatory decisions and approaches helped fund universal connectivity; however, their effectiveness has been diluted over time by the pressures of competition, causing many rural areas to lose the implicit support of traditional residual ratemaking. This trend is now intensified by the steady attrition in the support from both the USF and intercarrier service rates.

History is now repeating itself as the FCC grapples with the "availability gap," analogous to the availability gap that once existed for rural telephone services, as well as the gap that once existed for electricity, transportation, education, healthcare, etc. Then, as today, the value of the network for everyone is directly related to the number of households and businesses that have access. Even as we talk about a new broadband availability gap, we should acknowledge that there are still areas of the country without commercial power or wireline telephone service, or even mobile wireless service.

For example, in Jasper, Arkansas, one of the rural towns our company serves and the county seat of Newton County, I have trouble getting a reliable cell phone signal in the parking lot in front of the courthouse located in the center of town.

The emerging and new availability gaps are mobile communications and broadband access, two distinct needs in rural America, and the redirecting and expansion of explicit support for broadband and for mobility *is the same as*, from a historical perspective, the maintenance of universal telecommunications service. Just as technology and the demands of the public evolve, so too must the focus and methods of support continue to evolve in order to keep in sync with the original policy intentions for universal telecommunications connectivity. The infrastructure for rural broadband access has been successfully supported in many, but not all rural areas and the consumers of such areas do, in many cases today, receive broadband rates and services that are reasonably comparable to urban communities. We are concerned that the NBP essentially scuttles the present system instead of building upon this long-term foundation with a holistic recognition of the various sources of support, thereby explicitly avoiding the adverse consumer impact and reactions that will be created if there is a disruption in the continuity and adequacy of support. In the words of the Act (Section 254(b)(5)), such support must be "specific, predictable and sufficient . . . to preserve and advance universal service."

<u>The USF is in need of reform and retargeting in order to ensure "specific, predictable and sufficient" support.</u>

While we can point to areas of the USF and intercarrier compensation system where the outcomes have been positive and necessary for rural constituents and consistent with the goals of universal telecommunications service, we can also point to and acknowledge the NBP's assertions that reforms and retargeting of the support programs are required in order to most effectively and efficiently move the nation forward and close the availability gaps for rural broadband access.

THE KEY TO USF REFORM IS TO EXPAND THE CONTRIBUTION BASE.

First and perhaps foremost among the needed reforms, and a topic of considerable review and comment at the FCC in recent years, is the need to expand the contribution base of the USF assessment fee. Even though the FCC has capped elements of the fund, the USF fee, as a percentage of the billed revenues upon which it is assessed, has increased over time. This is largely due to the collection base declining as telecommunications traffic and associated revenues have shifted from traditional services to services that are exempt from such assessment, such as Internet access and Internet applications. Absent a restructuring and expansion of this collection base to a technology-neutral and industry-wide alternative, the fee percentage will continue to increase because of the steadily declining revenue collection base. Such expansion of

this base and the stabilization of USF collections are imperative in order to sustain the system, economically and politically. The FCC has a considerable record on this issue, and acknowledges in the NBP the need for such expansion of the assessment base for the USF fee, yet delays in implementing this aspect of the plan. We strongly urge Congress or the FCC to move forward with this reform as soon as possible.

USF NEEDS TO BE REFINED AND RETARGETED.

In addition, the NBP rightly concludes that the USF needs to be refined and retargeted in order to most efficiently and effectively focus the limited resources of the fund to rural areas of the country with a bona fide and festering lack of broadband availability. We agree with this basic premise, but we are concerned that the NBP makes some assumptions that understate the cost to preserve the broadband and voice services provided in presently-supported areas, while understating the cost to provide a reasonably comparable service mix in the areas that do not receive sufficient support today.

There are two historical points we believe are relevant to this discussion of USF reform. The first relates to the uneconomic consequences of the "identical support rule," and the second relates to the systematic exclusion or limiting of support for many high cost service areas through the grandfathering and freezing of eligibility.

<u>The identical support rule proves to be a costly option.</u>

When the Act was amended by Congress in 1996, the framers were focused on the introduction and promotion of local exchange competition. It was believed to be prudent policy at the time to allow new rural market entrants an opportunity to become eligible for USF support, and that such support should be identical to the support received by the incumbent carrier (i.e., "ILEC," or incumbent local exchange carrier). This has been referred to informally as the "identical support rule," and was based on the premise that Congress should remove barriers to competition, even if this resulted in propping it up with USF support in the high cost areas.

There are instances in certain rural service areas where aspects of this policy have worked well, especially in those areas where the ILEC was not willing or able to invest in upgraded facilities and services. A rural competitive local exchange carrier ("CLEC") filled in this service gap, partially funded by USF and/or the identical higher intercarrier compensation rates allowed for rural carriers. Such communities now enjoy a higher standard of care and service level than would have been possible absent a mechanism(s) for non-ILEC support. Ironically, these communities are now at risk of losing this support under the NBP.

By far, the largest recipients of identical support from the USF are large mobile wireless carriers, and this has driven most of the growth in the size of the USF in recent years. While there may be some rural areas of the country where mobility and broadband access have been enhanced because of the identical support rule, such outcome is made less likely by the fact there is no assessment of these carriers' costs , i.e., there is no correlation between rural service support needed and the USF distributions received by such mobile carriers. There also is no specific accountability to ensure that the support is being used to extend rural mobility.

It has had little impact in downtown Jasper, Arkansas.

While the ILECs' services are more tightly regulated by the state commissions to preserve quality and availability under an obligation to be the carrier of last resort, the mobile carriers have enjoyed the freedoms of regulatory forbearance in a more competitive landscape, able to pick and choose deployment and quality of service criteria that are most profitable and responsive to the competition. This has naturally limited wireless deployment to those areas where there is adequate traffic (and profit) to justify the high cost of building and maintaining towers, radio transmitters and leased transport facilities. While this is an appropriate regulatory regime for a competitive service, the payment of USF to such carriers without a concomitant commitment to extend rural services has been the greatest contributor to inefficiency in this system of rural support, and should be the first order of business for the FCC.

The cost of propping up competition in rural areas is too great, and this is an area of the NBP that is on target, i.e., the move toward a single supported carrier in a given rural service area. We believe such support must be based on a financial assessment of need, considering the actual costs to provide a comparable service as generally available and expected in urban America. We agree with the NBP that the reforms to USF collection and eligibility should free-up funding, providing an opportunity to redirect *some* funding toward rural areas with a bona fide availability gap.

However, we disagree with the language of the NBP when it appears to conclude that such USF retargeting and reforms alone will be sufficient to create and maintain comparable service availability and rates for all rural consumers and businesses. Frankly, without a measurement of the impact of the reforms outlined above, and absent a realistic long-term standard of comparable service for rural areas, it is difficult to predict how much additional funding will be needed to affect "specific, predictable and sufficient" support.

<u>Where did the "availability gap" come from?</u>

As mentioned earlier, the forms of rural cost and rate support most prevalent in the early stages of advancing universal telecommunications services were the regulatory

ratemaking practices of geographic rate averaging and value-of-service pricing. In the former, rates across the state or region of a local carrier were essentially averaged, or virtually the same across the carrier's urban and rural service areas. In the latter, local rates in the large, urban centers were actually higher than in the smaller towns and rural exchanges because of the higher perceived value to consumers in being able to call more people without a long distance charge. In addition, local rates for businesses were historically set much higher by the state regulators than residential rates to reflect the greater value associated with the necessity of telecommunications for engaging in commerce. This resulted in rates for business and for urban consumers that were greater than actual cost, and the profits from these market segments were *implicitly* used to keep rates in the rural areas at comparable or even lower levels. This, coupled with regulatory scrutiny over quality of service and service availability, was the system within which rural customers were supported.

During the rounds of access and long distance rate reductions of the 1980's and 1990's, the local carriers were forced to reduce carrier access charges paid by the long distance carriers (included in their cost to provide long distance services), with corresponding increases in local flat rates paid by consumers via the creation of a federal subscriber line charge. Local rate averaging between the urban and rural areas of such carriers was still alive and well in the halls of the state regulatory agencies. However, smaller rural carriers typically did not and do not have any urban service areas with which to rate average, resulting in the need for financial support from external sources, such as carrier access charges and the USF, in order to ensure reasonably comparable rates and services to their rural consumers.

When local telephone service competition was mandated by Congress in 1996, perhaps one of the greatest flaws in hindsight in the implementation of this policy was the lack of recognition that competition would erode the implicit support for the rural, high cost service areas. As competition from CLECs, cable TV companies and wireless services has thrived in the urban markets, reducing retail rates and benefiting urban consumers, the implicit support provided to the rural markets has been significantly reduced as a direct result of such competition. Prudent business practice dictates that unprofitable services are not sustainable propositions, and without adequate implicit or explicit support in such high cost areas, the deployment of network upgrades and new technologies, such as those that would provide a network foundation for broadband access, have fallen behind that of the urban areas. This, and the fact that Internet access has not been explicitly included as a supported service, is the primary cause of the present availability gap.

The USF and the pooling of carrier access charges restored a portion of this support using a similar ratemaking vehicle, i.e., a nationally-averaged USF assessment fee, as well as nationally-averaged carrier access rates. However, the high cost areas in these

rural support programs were grandfathered by the FCC, preventing many rural and high cost areas in the country from being disaggregated and identified, and thereby were systematically excluded from eligibility. Then, as now, there were strong interests opposed to any increase in access charges or in USF support.

While urban consumers have seen their service options and value propositions improved by the natural forces of free enterprise, rural consumers face declining service options and increasing rates absent a specific, predictable and sufficient vehicle for restoring universal service support.

Universal broadband service policy must begin with realistic assumptions about the extent and location of needs and economically efficient responses.

Today, the FCC, Congress and the drafters of the NBP face this difficult conundrum: How to restore rate and service support to certain rural segments of society in the face of pecuniary and political pressures to limit, if not eliminate, rural support for telecommunications as currently embodied in carrier access rates and the USF.

In our view, the NBP may not be realistic in some of its conclusions, with its drafters understandably looking for a "silver bullet" amid the interrelated and inaccurate assumptions apparent in the NBP:

- an access speed for a "basic set of applications" (i.e., 4mbs) represents a realistic long-term goal for rural constituents;
- an upgrade to the mobile wireless networks will be the savior, providing an adequate, less costly and ubiquitous long-term broadband access solution;
- support is either required only for a one-time investment to chum the system, and/or can be limited to a hypothetical model inherently designed to limit support; and,
- competition for funding in the form of reverse auctions administered by the federal government will rid the system of waste.

Using these questionable assumptions as cornerstones of its solution to the present availability gap, the NBP appears to be heading rural broadband support down a path to a system that may be 100 yards wide, but only ½ inch deep. While such a course may appear to be the best compromise in the face of very real economic and political challenges, we submit that the net effect of such an outcome will likely be a severe disruption in support and services to rural consumers that today have access to broadband services, without an effective and functional expansion to those rural consumers who presently lack broadband access. We're about to make a lot of rural constituents really angry.

COSTS AND MODELS: "RATE OF RETURN" OR "PRICE CAPS" MAY NO LONGER BE SUFFICIENT OPTIONS.

Costs are what they are, and are not affected by hypothetical models or by types of regulatory control.

Telecommunications access service, such as wireline or wireless telephone service, high speed Internet access service, or cable TV access, is a very capital-intensive business, requiring investors and lenders to be willing to make long-term investments. Capital expenditures and other costs-per-customer are much higher in rural areas than they are in urban areas. In order to attract capital to such ventures, there must be sufficient confidence in the future growth and stability of services and revenues. Uncertainty will place a chill on the investment in service extensions and technology upgrades. Continued attrition in end user, access and USF revenues will end further rural infrastructure investment in high cost and hard-to-serve areas.

It must be recognized, too, that the provision of telecommunications services is fluid, and requires constant additions and rearrangements of plant to respond to new customer additions and movements, and in response to increasing demands of the customer base, such as the increasing penetration and usage of broadband access to the Internet. As with any other business, equipment wears out and needs to be replaced, be it a server, router, central office switch, or service truck. The cost of labor increases as employees demand and need wage increases to keep up with the pace of inflation. The price of major inputs increase as well, including the cost of wholesale access to the Internet from the large Tier I Internet transport carriers.

The idea that a long-term policy of comparable broadband rates and services can be sustained through a single injection of capital (such as a grant) and/or through the offering of a fixed support level (capped USF) is not economically responsible. For an established enterprise, a grant under certain conditions can throw a marginal, high-risk project into a more feasible position. For an operation that is relatively stable, with little growth and without increasing cost of inputs, a fixed support level may be sufficient for an extended period. However, these are more the exceptions than the rule, given that we are in a period of extensive technological and market change, and in the middle of a national need to invest and build-out the broadband infrastructure. If we truly want the benefits of broadband access to extend to the rural consumers of this country, it will take a substantial and sustained financial commitment. Such investment will deliver extraordinary returns for decades to come.

Even so, we are sensitive to the need to make sure the USF and any new system of rural support is highly targeted to the availability gap, and results in an increase in the efficiency of the system. For the system to work, though, it must provide sufficient and predictable support to create and maintain service comparability, and be predictable

and specific enough to attract and sustain investment. This issue is not about forms of regulation, such as "rate of return" or "price cap," but instead about matching a reasonable and relevant measure of cost to the territory and service need. The cost of network access per customer varies considerably with customer density, terrain, geographic isolation, and service levels expected by consumers. Therefore the support required and received must also vary considerably in direct proportion to these cost variables in order to provide the amount needed to attract and sustain the capital for network build-outs and upgrades, support the on-going cost of operation and maintenance, and recognize that these are impacted over time by the increasing needs and demands of consumers.

We are not here to advocate that the FCC make no changes to the current cost allocation system determining eligible levels of USF support and intercarrier access rates. The present system is replete with regulatory tweaks from the past, making it unsustainable in the long term. However, the NBP avers that support be based on a new and different set of principles, essentially scuttling the principles of current law in Section 254 of the Act and implemented in the current USF cost allocation and recovery process. As rural operators supplying broadband services to a base of rural consumers, it is hard for us to envision a workable system of rural support that does not provide some means for adjusting that support in direct response to variations in actual costs and consumer demands among locations and over time.

BIG, NATIONAL WIRELESS MODEL IS NO PANACEA.

<u>Merely upgrading and extending a mobile 4G wireless network will not get the job done.</u>

In the quest to find the most cost effective path toward ubiquitous broadband, the NBP first sets a lower standard of 4mbs as the *long-term* goal. In order for the mobile wireless infrastructure to be a potentially viable option for a total broadband solution in any service area, a lower service standard must be set because of inherent limitations of wireless. With limited radio spectrum, the total throughput of a single tower/transmitter is also limited, particularly as the number of subscribers sharing the resources of a single radio transmitter continues to increase. Even at 4mbs, we question the assumption that such networks can sustain the load of a fixed and mobile subscriber base where Internet usage is increasing at geometric rates. The engineering response is to place more towers and transmitters and/or increase the amount of radio spectrum. Both of these are quite costly, and in some cases are not available options. New tower construction also requires the build-out of fiber optic cable to connect the tower location and transmitter to the wireless carrier's network and core routing centers. As the NBP acknowledges, there is a lack of spectrum and an explicit goal in the NBP to allocate more radio spectrum. Meanwhile, such spectrum resources remain both limited and

consolidated in the control of a shrinking number of mobile carriers as the industry continues to consolidate.

As operators of rural broadband systems, we know first-hand that there are areas of this country where the cost to extend cables to remote and sparsely populated areas are prohibitive. In many such locations, the application of radio technologies, be they fixed or mobile, will be the most cost-effective solution. Being the most cost-effective, however, does not translate into cheap, as such will require the construction of towers, transmitters, fiber or microwave transport facilities, as well as the acquisition and use of radio spectrum (if one is not using the public spectrum) and the provision of whatever consumer electronics are being used by the customer, e.g., a fixed receiver and wiring, smart phone, etc.

It is ironic that I, too, am a consumer that lives in an area without access to broadband. We have a house in a rural area in northwest Arkansas, specifically on Wolfe Ridge, about four miles west of Eureka Springs. This house is only about a mile or so from Highway 62, a major artery across northern Arkansas. High speed Internet is not available to the residents in this area and is not in an area our company serves. The terrain is very rugged and mountainous and cabling the area with fiber or a fiber-deep design would be expensive. We rely upon our 3G wireless service for access to email, web, work applications, etc. Such service is only barely functional, and is not sufficient for a household that downloads movies on demand, video conferences with the grandkids, and passes large files to and from the corporate file server. We are the lucky ones. Some of our neighbors on the other side of the ridge cannot receive a reliable cell phone signal.

When I contemplate the future of broadband service to this location, the future upgrades of my mobile wireless service from 3G to 4G do not come to mind. I expect only a marginal improvement, with such additions to wireless capacity being quickly consumed by the mobile public's voracious appetite for mobile data applications, now proliferating on the newer touch screen phones like the Apple iPhone or the Motorola Droid. The lack of bandwidth on the mobile networks is today's news. It is much more likely that a fixed wireless solution, one that uses a radio frequency that is more forgiving in mountainous and wooded terrain, will be the most viable option in my particular case. That is, if I believe I need an access speed reasonably comparable to what I can get on the wired network in town.

I also ask myself the question of how this aspect of the NBP would help my personal situation as a rural resident and broadband consumer. Frankly, I do not have much confidence that a national, mega-carrier will have any interest in deploying a node or transmitter for a few dozen residents, which is typical of the pockets of unserved or underserved rural areas today. I also believe it would be a huge barrier to entry for a

small start-up company or cooperative focused on this area to incur the legal costs and challenges that would be required to participate in a federally-administered auction. In this context, the NBP appears to leave us pretty much on our own.

My intention here is not to merely whine to the Committee about my personal situation as a consumer, but to point out that this set of circumstances is quite typical of the rural availability gap referred to in the NBP.

The conclusion that we offer in this context is that a national policy to promote and support broadband in such geographic pockets across the nation must embrace a more realistic set of assumptions regarding the role of wireless technologies and carriers:

1) Mere expansion of the mobile wireless network into rural areas will not fill the availability gap.
2) The mega-carriers do not have the organizational focus and alignment to respond to geographically-dispersed pockets or gaps in broadband service coverage and support.
3) National policy should be agnostic about the distribution technologies used in the last mile; however, we cannot afford to be agnostic about the outcome, which will require targeting of support in a way that can adapt to unique local conditions and needs.

BROADBAND IS A WIRED WORLD.

<u>All broadband distribution technologies, including wireless, rely upon a deep deployment of fiber optic cable.</u>

There is another point that needs mentioning in the context of what will be the most economic approach to expanding and sustaining broadband access. The "last-mile" technologies, e.g., cable modem over coaxial cable, digital subscriber line (DSL) over copper cable, fixed and mobile wireless, and, of course, fiber-to-the-premise, all rely upon fiber optic cables to connect and consolidate the distribution nodes or towers. A limited exception to this is point-to-point microwave to perform this function in the most remote tower or node locations, but microwave has some inherent limitations that prevent it from being the best long-term choice for intermediate transport. If it did not, we would not have been replacing it world-wide with fiber optic cables for the past thirty years. The wireless carriers depend upon the embedded wireline network for such connections. The existing networks represent a sizable investment, and it would be imprudent to implement policies that would cause degradation or an abandonment of this resource.

What is truly most cost effective depends on the current state of the local distribution network(s), and in many cases the most cost-effective option will be to build upon these

existing infrastructures. This is especially true in the territories of supported carriers that provide an extensive rural coverage for broadband services today under the present rural support system. At the national policy level, we should take care not to oversimplify this issue as a choice between wireless and wireline. It is like creating a choice between having a bathtub and having the plumbing to connect it to the water supply. If you want to take a bath, you need both. Even as wireless technologies evolve and offer the promise of greater coverage in unserved areas, there must yet be a wired, fiber optic network that extends deep into these rural terrains to connect to such radio transmitters and accomplish the task of ubiquitous broadband access, i.e., to re-establish and extend universal telecommunications service.

IN RURAL AMERICA, SMALL MAY BE MORE EFFECTIVE AND EFFICIENT.

Smaller rural carriers are specialists in rural service delivery.

I have heard it expressed by some that the nation does not need the small carriers and that it would be more efficient to provide support to the large carriers who presumably have greater economies of scale and can do the job better and cheaper. To the extent that there are elements of this sentiment among those herein engaged in the policy debate over rural telecommunications support, I believe it important to point out some of the theoretical assumptions underlying such a notion, and how these may not match with economic reality.

First, if a geographic area is inherently a high cost area to serve, it is so because of the factors that are repeated in this testimony, i.e., households and rural businesses that are scattered across the landscape, sometimes in mountainous terrain that is difficult to cover with wire or radio and isolated from major traffic routing and switching centers resulting in a high cost to build and maintain long-distance fiber cables to connect to the outside world. If being large and having economies of scale was all there was to it, then the broadband availability gap would not be most predominant within the traditional franchise territories of the largest local exchange and wireless carriers. The economic issue most affecting rural service is not business entity scale, but the fundamental characteristics of customer density, service terrain and service level.

Another point that is often overlooked begins with the fact that any successful business venture, or any collective venture among humans in general, requires sufficient focus and a sustained commitment. The larger carriers are engaged in a competitive battle for market share in the urban, suburban and exurban communities. This is good for consumers in these areas, but also consumes these carriers' focus, as well as investment capital. Such national and multi-state carriers are not as focused on rural services and rural markets, nor should they be. Business prudence and fidelity dictates that they commit their energy upon those areas with the most economic potential. It is and would be difficult for the mega-carriers to align their organizations to the unique requirements

of discrete rural locales. A one-size-fits-all approach will not be the most economic response, nor will it even be capable of attacking the problem on the ground where it lays. This will require the attention of a rural specialist.

The smaller local and regional carriers are inherently more focused on the unique needs and circumstances of the rural markets they serve. This is a natural part of living, working and drinking coffee among the people that pay the bills; of being a customer of the product you provide; of being engaged and aligned with the health and vitality of the local economy, all resulting in a level of market and civic accountability that large corporate CEOs cannot feel from the captain's chair of a high-rise board room in the heart of one of our nation's urban centers of commerce. This is not to imply that the captains of the telecommunications industry are not accountable or responsible, but to simply point out that as it relates to rural services and support, it just is not their primary job.

The small, rural carriers are specialists in the provision of rural broadband services, have the experience to do this most effectively and continue to learn through such experience what works and what does not work, and how to align an organization to serve a geographically-dispersed population. Our advice to the FCC and Congress as they wrestle with the very important issue of closing the rural broadband availability gap is to tap into this well of experience, and leverage these organizations' commitment and focus on rural infrastructure development.

To this end, we respectfully and urgently ask Congress and the FCC to pay particular attention to the unique risks faced by smaller carriers as they work to extend and preserve broadband services to rural constituents.

STUCK IN THE MIDDLE MILE: THE NEED FOR NON-DISCRIMINATORY ACCESS.

In many rural locations across the country, a single large or regional carrier may own and control the only long distance fiber optic cable facility into a rural town or geographic region served by a small telephone, cable TV and/or wireless provider. In this circumstance, which is fairly common in rural regions, such small carriers are totally dependent on this single, much larger carrier (who may also be a competitor) for access to the outside world, including wholesale access to the Internet. As more consumers in the area subscribe to broadband services, and as each of these consumers increase their usage and demand for faster connections, the local rural service provider must continuously monitor and increase the capacity of their wholesale link to the Internet. The wholesale rates for such links are often much higher than the same level of Internet transport capacity in a more competitive or more urban community. In direct contrast to this, long distance companies pay the local rural carrier for access to the local network. With Internet access, the situation is reversed.

The unit cost, i.e., per customer cost, for regional or "middle mile" transport into rural areas is higher because of the lower traffic densities and longer distances involved. When such transport is controlled by a single carrier at arms' length to the communities that are dependent upon this service, there is also the potential for predatory pricing. For these reasons, we believe there is a strident need for rules against discrimination, and to recognize these costs as a significant and indispensible component of providing rural broadband services.

Who should get rural support and who is the Carrier of Last Resort?

Of all the issues surrounding the USF reform provisions of the NBP, the determination of which carrier or entity should get support is one of the most problematic, and is interrelated with the question of who, if anyone, will retain a regulatory obligation to serve all comers. In other words, how will the plan insure a broadband (telecommunications) connection will be provided under reasonable terms and conditions for all premises within a designated geographic area, i.e., who will be the carrier of last resort ("COLR")?

The obligation to serve all households and businesses is a legacy requirement of the local telephone companies, whose original telephone service franchises required compliance with state commission rules for service availability and nondiscrimination. The local telephone company's rates were regulated by the commission, and in return the regulated carrier enjoyed exclusive rights to serve a designated geographic area. Although the franchise right of service exclusivity is now essentially gone, the legacy requirement to serve all consumers in the franchise area is alive and well, if not in the present rules and authority of a state utility commission, then in the culture of most rural telephone companies.

A rural cable TV company may have a similar obligation within the franchise agreement with a town city council or county government, but this can vary considerably in word and in practice. Retail rates and services of cable TV companies have not received the same level of regulation as those of telephone companies, but are subject to notice and review requirements. Since rural cable companies have received no rural support, they must limit their cable footprints to those areas that have enough subscriber density to make a build-out or cable extension profitable. Now that direct broadcast video providers, such as DirecTV and EchoStar (d/b/a Dish Network), have taken a substantial share of the rural video market, rural cable carriers are attempting to remain viable with the addition of high speed Internet access and telephone services. The challenges here are significant, especially in the face of persistently-rising wholesale video rates, rising pole attachment rates and limited options for wholesale connections to the Internet.

A regulatory obligation to be the carrier of last resort only exists, to the extent it exists at all, for those business entities that are or were more strictly regulated, namely the local telephone companies. The other telecommunications service providers, like satellite, wireless, wireline CLEC, or Internet-based voice providers, do not have a regulatory obligation to serve everyone in their service area, and are free to pick and choose the best customers. This is okay, because the benefits of competition have outweighed the loss of a closed system of monopoly regulation.

However, such competition has diverted revenues, profits and USF collections, thus fragmenting and diluting the economic ability of rural carriers, large or small, from fulfilling a continued rural COLR obligation, especially where rural support is eroding or non-existent. If there is to be a COLR obligation in high cost areas, where such an obligation is arguably most needed, it is imperative that financial support for these areas is truly "specific, predictable and sufficient." To do less will result in business failures, and disruption of vital services to rural communities and constituents.

Consumers wince at the sound of a federal auctioneer's gavel.

Whether there is or is not a COLR obligation that survives this transition, there is still the issue of how to fairly and consistently determine the most competent and efficient service provider for a given rural service area and of how to ensure that supported broadband services meet rural consumers' needs while being affordable, both from the standpoint of the rural consumer and of the consumers nationwide that are paying a percent of their telecom bill into a rural support fund. The NBP proposes that only one service provider be eligible in any given high cost area. The FCC also suggests that an auction process should control eligibility, wherein the support funding would be awarded to the lowest bidder.

We agree with the NBP that a single, eligible provider in a given service area is the most economically efficient framework for supporting the expansion and preservation of rural broadband access. However, the idea of government-administered auctions to allocate USF support gives us serious pause for concern.

Frankly, I find myself on several sides of this issue. As leader of a company that operates a regulated telephone company that serves an extremely rural and high cost area, I am gravely concerned about the impact that a speculative bid process could have on the services provided to our customers, and how these services could be disrupted. In addition, as a leader of a company that operates rural cable TV systems in direct competition with rural telephone companies, and one who has invested in broadband network upgrades and offering broadband services to a number of small, rural towns and hamlets, I think it would be reasonable for the government to provide an economic opportunity to extend this network into the adjacent areas without broadband access. As a broadband consumer, who has a house where broadband is not available, I do not

care who is picked, as long as someone with mettle, who will focus on my situation, is granted the means to make it happen.

There is no easy way to remake the rural landscape and the system of support to reflect the most economically efficient and economically relevant allocation of resources. What makes it difficult is the sheer size and diversity of the problem. There is no way to do this effectively from the Beltway without creating substantial and unintended harm, such as forcing the rural telecommunications infrastructure into a free-for-all grab for government subsidy, fueling speculative ventures and political diversions, and subjecting rural consumers to either disruption and loss of the broadband services provided today, or to create expectations left undelivered for lack of integrity in a process untailored to the local needs and circumstances.

It is almost impossible to see the trees within the national forest from a desk in Washington, D.C. Without a view on the ground, federal government administrators must resort to clear-cutting the landscape, in lieu of more sustainable harvesting practices that require a tree-by-tree assessment of maturity and suitability. We think the FCC would be prudent to share this burden with state authorities, who have a closer view of the landscape, and who are more likely to feel the sting of errors or omissions.

Above all, Congress and the FCC should resolve to do no harm to existing broadband consumers, and move forward in an incremental and orderly and judicious fashion. Auctions are messy and unpredictable, and usually are the last resort when the normal channels for buyers and sellers have not worked, or when there is not enough time for the market to find its level and one is desperate to bring closure, as in foreclosure, to a transaction. On its face, an auction process appears fraught with economic and political risks.

The current system of support establishes zones of economic reasonableness, using actual rural area costs and comparisons to national benchmarks to determine if the amount of support is appropriate. In contrast, there is no guarantee that the outcome of an auction process would be economically reasonable or sustainable. In an auction there is always the potential that a speculative and irresponsible bidder would gain eligibility, and then not able to perform because of errors in projections or because of a speculative agenda to consolidate and "flip" the funding rights.

In fact, the FCC is considering allowing a bidder to self-define the area on which it is bidding without limitation. Such a process could also have unintended and adverse consequences for rural constituents. This is because a local distribution network is designed and sized *as an interconnected system* to service and support a given area. It is not a warehouse of vending machines that can be set up or moved at will. The system is more akin to an organism, with a brain (switching center), limbs (transport facilities) and toes and fingers (distribution facilities). An auction for a portion of an existing

network, without regard to the existing design and network contexts, could lop off a vital portion of this organism, the remainder of which may not be complete enough to survive without some serious life support. While the portion of the area reallocated may appear to be less costly to support a reverse auction, the cost to support the remaining consumers could be much higher, resulting in an overall increase in support required. While it is reasonable to create a process by which carriers can self-define areas where there is a bona fide interest to extend broadband service, we do not think it is reasonable to subject this to the whims of an auction. Any allocation or re-allocation of support should include a careful review of the specific circumstances and the overall impact on rural consumers in the areas affected.

In those locations where the current system of support is working, and consumers' needs are being reasonably met, prudence would provide deference to the status quo in order to prevent unwarranted consumer disruption and confusion. In short, while aspects of the USF and intercarrier arrangements need to be updated to reflect the evolving needs of rural consumers, and to do a better job of targeting the funds, we should work just as hard to preserve the positive elements and outcomes embodied in the present support system. Moreover, there are more orderly and predictable ways, other than auctions, to determine if a dislocation exists among services, rates and rural support.

Admittedly, there is no easy or quick solution to the question of who will get the call where there are pecuniary interests competing for eligibility in the unserved and underserved areas. That is the point. Auctions are typically applied to drive a quick resolution when there is not time for the market to work. They are not the proper vehicle for managing the build-out of the nation's telecommunications infrastructure. If we want this process to be both efficient and targeted to the rural need, while balancing the overall needs of society, then we would do well to bring a scalpel wielded by a local surgeon, instead of forcing everyone to get in line with a hatchet and wait for the federal auctioneer's gavel.

Final call to action.

The smaller, rural carriers have long been a vital part of the telecommunications ecosystem, setting up shop and serving areas that the larger carriers of the day chose to pass by. History repeats itself. If there is to be a robust and effective long-term system for supporting a rural broadband expansion, we believe rural consumers will benefit if the smaller telephone, cable TV and wireless carriers are recognized as important and vital participants. This will require recognition of the need for focus and commitment at the local level, as well as the need to protect small business from being quashed amid the battles and maneuvers of the telecommunications titans. Rural broadband is a role best suited to rural specialists.

Finally, Congress and the FCC must wrestle with the balancing of interests among rural and urban constituents, as well as between the customers of the mega carriers and the smaller, localized or regional carriers. The current system reflects decades of compromises and such balancing of competing interests, and it would be prudent to build upon this foundation, in lieu of tearing it completely down and starting from scratch, as proposed by certain elements of the National Broadband Plan.