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INTRODUCTION

Chairman Blum, Ranking Member Schneider, and members of the subcommittee, thank you for this opportunity to testify about the importance of rural broadband, the small businesses that deploy advanced telecommunications throughout rural America, and the investment and operating barriers that these companies confront daily. I'm Mike Romano, Senior Vice President for Industry Affairs and Business Development at NTCA–The Rural Broadband Association. My remarks today are on behalf of NTCA as well as our nearly 850 rural, community-based member companies that provide broadband and other telecom services in 46 states.

NTCA members and companies like them serve just under five percent of the U.S. population spread across approximately 37 percent of the U.S. landmass; in most of this vast expanse, they are the only fixed full-service networks available. Small telecom providers connect rural Americans with the world – making every effort to deploy advanced networks that respond to consumer and business demands for cutting-edge, innovative services that help rural communities overcome the challenges of distance and density. Fixed and mobile broadband, video, and voice are among the services that many rural Americans can access thanks to our industry's networks and commitment to serving sparsely populated areas. These technologies serve as a small business incubator in rural areas that would otherwise see entrepreneurial activity gravitate toward the urban areas with greater resources.

Robust broadband service enables new business ideas to take root and grow in rural America and attracts small companies able to use the broadband to access the “big city” resources and markets to meet their growing needs. In rural America, that translates into economic development that produces jobs, not only in agriculture, energy and other industries with a strong rural presence, but in the healthcare sector, and just about any other retail industry that requires broadband to operate.

RURAL BROADBAND DEPLOYMENT BENEFITS AND PROGRESS

Rural Broadband Benefits the Entire U.S.

Investing in rural broadband has far-reaching effects for both urban and rural America, creating efficiencies in health care, education, agriculture, energy, and commerce, and enhancing the quality of life for citizens across the country. A report released last year by the Hudson Institute in conjunction with the Foundation for Rural Service found that investment by rural broadband companies contributed \$24.1 billion to the economies of the states in which they operated in 2015.¹ Of this amount, \$17.2 billion was the direct byproduct of the rural broadband companies' own operations while \$6.9 billion was attributable to the follow-on impact of their operations.

¹ “The Economic Impact of Rural Broadband” (2016), The Hudson Institute, Washington, D.C.

The Hudson study also determined that while small telcos provide a range of telecommunications services in rural areas, much of the benefit goes to the urban areas where the vendors, suppliers, and construction firms that rural telcos use are based. Only \$8.2 billion, or 34 percent of the \$24.1 billion final economic demand generated by rural telecom companies accrues to rural areas – the other 66 percent or \$15.9 billion accrues to the benefit of urban areas.

Additionally, the report found that the rural broadband industry supported nearly 70,000 jobs nationwide in 2015 both through direct employment and indirect employment from the purchases of goods and services generated in connection with broadband deployment and operations. Jobs supported by economic activity created by rural broadband companies are shared between rural and urban areas, with 46 percent in rural areas and 54 percent in urban areas.

Immense Benefits for Consumers and Communities

Beyond the direct impacts of investment activity for job creation, the broader socioeconomic benefits of broadband for users cannot be ignored. A Cornell University study, for example, found that rural counties with the highest levels of broadband adoption have the highest levels of income and education, and lower levels of unemployment and poverty.² Access to healthcare is a critical issue for rural areas, where the lack of physicians, specialists, and diagnostic tools normally found in urban medical centers creates challenges for both patients and medical staff. Telemedicine applications help bridge the divide in rural America, enabling real-time patient consultations and remote monitoring, as well as specialized services such as tele-psychiatry. One study found that doctors in rural emergency rooms are more likely to alter their diagnosis and their patient's course of treatment after consulting with a specialist via a live, interactive videoconference.³

In Hawkinsville, Georgia, rural provider ComSouth partnered with the county public school system to deploy telehealth equipment to connect the school nurses' offices with physicians at Taylor Regional Hospital. Working with the Georgia Partnership for Telehealth, the hospital, the school system, and ComSouth facilitate better health care for students who might not otherwise be able to be seen by a physician in an area where parents can ill afford to miss a half or full day for a doctor visit. This is a very simple but elegant telehealth solution – the technologies (broadband and the monitoring equipment) are not new, but ComSouth helped put the pieces together to improve student health and save everyone time and money.

Other benefits accrue in the form of things like distance learning and commerce. There is also a shortage of teachers in many areas of rural America and those public-school districts rely on high-speed connectivity to deliver interactive-video instruction for foreign language, science and music

² "Broadband's Contribution to Economic Health in Rural Areas" (2015), Community & Regional Development Institute, Cornell University.

³ "Telemedicine Consultations and Medication Errors in Rural Emergency Departments" (2013), Center for Healthcare Policy and Research and Department of Pediatrics, University of California Davis.

classes. Broadband networks also enable farmers and ranchers to use the Internet to employ precision agriculture tools and gain access to new markets.

Retail e-commerce has benefited tremendously from sales in rural America as well, where consumers may lack access to local retail outlets, but through the availability of rural broadband networks, can access a variety of shopping options. According to the Hudson Institute, rural consumers generated \$9.2 billion in online sales in 2015 and if all rural Americans had access to broadband networks, the authors estimate that Internet sales would have been \$1 billion higher.⁴ A recent Pew Study further finds that among those Americans who have looked for work in the last two years, 79 percent used online resources in their most recent job search and 34% say these online resources were the most important tool available to them.⁵

Indeed, job creation appears to abound when fast, high-capacity broadband is deployed in a rural area. In Sioux Center, Iowa, a major window manufacturer recently built a 260,000 square-foot plant to employ 200 people. The company considered more than 50 locations throughout the Midwest, but selected Sioux Center in part because the rural broadband provider enabled this plant to connect with its other locations throughout the U.S. using a sophisticated “dual entrance” system that could route traffic to alternate paths, ensuring that the main headquarters 250 miles away and other facilities would remain connected. In Cloverdale, Indiana, a rural broadband provider met with developers and helped bring an industrial park to its service area. Powered by this provider’s broadband, the facility brought more than 800 jobs to the area. In Havre, Montana, a rural broadband provider is partnering with a tribally-owned economic development agency to create a Virtual Workplace Suite and Training Center that is expected to create about 50 jobs. These stories are repeated throughout NTCA member service areas.

Unique Rural Challenges

Building broadband networks is capital-intensive and time-consuming; building them in rural areas involves a special further set of obstacles. The primary challenge of rural network deployment is in crossing hundreds or thousands of miles where the population is sparse and the terrain is diverse. Especially when crossing federal lands or railroad rights-of-way in rural America, small, rural providers must address environmental and historical permitting concerns or contractual obligations that can delay projects and increase their already high costs. Then, where networks are built, they must be maintained over those hundreds or thousands of miles – this requires technicians who regularly travel long distances to make service calls and customer service representatives trained to deal with questions about router and device configurations in ways that were unimaginable for “telephone companies.”

⁴ “The Economic Impact of Rural Broadband” (2016), The Hudson Institute, Washington, D.C.

⁵ “Searching for Work in the Digital Era” (2015), Pew Research Center, Washington, D.C.

And even the best local networks in rural markets are dependent upon “middle mile” or long-haul connections to Internet gateways dozens or hundreds of miles away in large cities. Reaching those distant locations is expensive as well, and as customer bandwidth demands increase – moving from Megabytes to Gigabytes to Terabytes of demand per month per customer – so too does the cost of ensuring sufficient capacity to handle customer demand on those long-haul fiber routes that connect rural America to the rest of the world.

Consumer Demand, Fiber, and Future-Proof Networks

Despite these unique rural challenges, NTCA members have made remarkable progress in deploying advanced communications networks in their communities. Based in the communities they serve, these companies and cooperatives are committed to improving the economic and social well-being of their hometowns through technological progress wherever possible. Indeed, in the face of these challenges, rural telcos like those in NTCA’s membership have truly led the charge within the telecom industry toward ensuring that every consumer in the rural areas they serve has the chance to access broadband and other communications services that are as robust and reliable as anything an urban American consumer would expect.

A survey of NTCA members conducted last year found that 49 percent of respondents’ customers are served via fiber-to-the-home (FTTH), up 20 percent from 2013. Twenty-nine percent of customers are served via copper loops, 15 percent cable modem, 6 percent fiber-to-the-node (FTTN), 0.5 percent fixed wireless, and 0.1 percent satellite.⁶ Due in no small part to increased fiber deployment, rural customers have access to faster broadband speeds. Per last year’s survey, 85 percent of NTCA members’ customers can purchase broadband at speeds of 10 Mbps or higher. Seventy-one percent can now access speeds above 25 Mbps.

This growth in rural fiber deployment is even more remarkable given the regulatory instability of recent years, with USF reforms and budget shortfalls having challenged the business case for many deployments or undermined the sustainability of networks already in place. As I will discuss later in this testimony, changes in the programs that have enabled such significant success to date are now putting this progress in peril and undermining incentives to keep investing. Nonetheless, policies that encourage sustainable future-proof networks will be most efficient in responding to consumer demand over the lives of those networks, particularly when compared to short-term strategies that focus on getting lower-speed broadband deployed quickly only to find that consumer demands outpace the capabilities of such low-speed networks in a few short years.

⁶ NTCA 2015 Broadband/Internet Availability Survey Report (2016), NTCA–The Rural Broadband Association, Arlington, VA.

Much Progress, but Much More Work to Do

Despite the progress discussed above, many parts of rural America still need fiber or other robust networks. Fifteen percent of NTCA member customers don't have access to even 10/1 broadband. In a country where the Federal Communications Commission (FCC) has indicated that 90 percent of Americans already have affordable access to 25/3 Mbps service and many urban consumers and businesses benefit from 100 Mbps or Gigabit speeds, broadband access in rural America lags behind urban areas despite the best efforts, innovation, and entrepreneurial spirit of NTCA's members.

And the cost of broadband for the consumer must be considered too. As I will discuss later in this testimony, it does little good to have a network built in a rural area and even to have high-speed services available atop it if consumers must pay far in excess of what an urban customer would pay for the same service. Federal law recognizes this by mandating that the federal Universal Service Fund (USF) ensure reasonably comparable services are available at reasonably comparable rates in rural and urban areas alike. Yet, in many of the rural areas served by smaller providers today, this is not happening, as the combined effect of recent USF reforms and USF budget cuts have resulted in standalone broadband prices that are tens or even hundreds of dollars more per month for rural Americans than urban consumers.

Finally, once a network is built, it is not self-effectuating, self-operating, or self-sustaining. Services must be activated and delivered atop it, maintenance must be performed when troubles arise, and upgrades must be made to facilities or at least electronics to enable services to keep pace with consumer demand and business needs. In addition to these ongoing operating costs, networks are hardly ever "paid for" once built; rather, they are built leveraging substantial loans that must be repaid over a series of years or even decades.

All of these factors make the delivery of broadband in rural America an ongoing effort that requires sustained commitment, rather than a one-time declaration of "success" just for the very preliminary act of connecting a certain number of locations. Particularly when one considers that even where networks are available many rural Americans pay far more for broadband than urban consumers, it becomes apparent that the job of connecting rural America – and, just as importantly, sustaining those connections – is far from complete. The rural broadband industry has a great story of success but also much more work to do – and this is where public policy plays such an important role in helping to build and sustain broadband in rural markets that would not otherwise justify such investments and ongoing operations.

THE FCC’S UNIVERSAL SERVICE FUND HIGH COST PROGRAM

The High Cost Program Budget and Universal Service Reform

Providing robust, scalable, and sustainable broadband in rural areas is not the kind of endeavor that tends to attract substantial capital from multiple private lending sources or tends to excite Wall Street. For small carriers like those in NTCA’s membership, there are very few lenders that even look to work in this space – the Rural Utilities Service under the U.S. Department of Agriculture, CoBank, and the Rural Telecommunications Finance Cooperative represent the primary lenders to whom such small rural network operators might look in borrowing investment capital.

Moreover, even where capital may be available, it can be difficult, if not impossible, to justify loans for investment in rural areas without a better business case than the rural area provides on its own. The costs of deploying networks and maintaining the service are considerable, and the few customers gained (typically less than seven per mile, and often less than one per mile) cannot afford to pay hundreds of dollars a month for broadband to cover those costs.

Direct support from the federal USF High Cost program is therefore essential to make the business case for rural broadband. In fact, it is the primary, if not the only, tool to ensure that – as mandated by the Communications Act – rural consumers can purchase telecom service reasonably comparable to what urban Americans receive, at rates reasonably comparable to what urban consumers pay.

Put another way, USF does not “pay for” networks; instead, the USF program ensures that rural consumers can pay reasonable rates for their use of services atop networks, thereby allowing consumers to buy such services and operators to justify the business case for investments in those networks in the first instance. USF is thus perhaps the best, most successful example of a public-private partnership that exists in the broadband space, having helped to justify the business case for private network investments that totaled approximately \$29 billion (in terms of gross plant then in service) just for smaller rural carriers as of 2015.

Enabling the business case for delivery of advanced telecom services across rural America is a big job for a program, and yet the High Cost USF has been wedged under the same budget (without even just an inflationary adjustment) since 2011 – even as small, rural carriers have sought to deliver more robust networks that will scale to meet the anticipated enormous consumer demands for bandwidth in the future and last over the lives of the loans taken out to build them.

No justification is available for why the cap on the High Cost budget is the appropriate level of funding to meet the program’s goals beyond a judgment in 2011 that 2010 support levels were the “right” amount. In fact, precisely because they have tried to keep investing where possible in

broadband, small rural carriers are now facing cuts to USF support for investments already made – revealing how much the High Cost program is woefully underfunded to do the job that the law requires and that Congress wants in terms of making robust, affordable broadband available in rural America.

While the FCC thankfully took steps to provide some level of additional funding earlier this year within the fixed overall USF budget for a subset of small carriers that elected model-based High-Cost USF support, this funding was insufficient to achieve the goals of the model the FCC designed. An additional \$110 million per year is actually needed to fund an alternative model that the FCC created to promote broadband deployment. Because of this limit, tens of thousands of rural consumers will see lower speeds or no broadband at all – precisely what the reforms were intended to alleviate.

And the concerns are just as significant, if not greater, for rural areas served by those small carrier recipients of High-Cost USF that could or did *not* elect model support. The FCC tried last year to update these “non-model” (actual cost) mechanisms to enable consumers access to more affordable standalone broadband. But under a new budget control mechanism that was included with those reforms, small operators will see their support slashed by 12.3 percent on average over the next 12 months, meaning that hundreds of small rural network operators will be denied recovery of a total of \$173 million in actual costs for private broadband network investments *that they have already made*. This means that small rural network operators and the customers they serve now must somehow come up with \$173 million to pay for broadband investments that the USF program would have supported prior to the adoption of a harsh budget control mechanism last year.

Because of these support cuts, many rural network operators cannot charge affordable standalone broadband rates for rural consumers – the very issue the FCC was trying to fix in the reforms last year – and smaller rural operators are also cutting back on future broadband infrastructure investments. For example:

- One NTCA member company in the Southeast has indicated that it cannot justify seeking a \$26 million loan to build high-speed broadband infrastructure due to the USF cuts; a project that would have delivered approximately 1,000 miles of fiber to over 7,000 rural customers is now on indefinite hold.
- Similarly, due to the USF budget cuts, a cooperative in the upper Midwest is on the cusp of cancelling 2018 construction projects worth several million dollars; these projects would have upgraded or delivered broadband for the first time to approximately 500 rural consumers and businesses, but the company now needs to scale back future investment because the USF cuts are taking away millions of dollars that were counted upon for investments already made in the past.

- In Mississippi, a small rural provider has been forced to hold off indefinitely on plans for future investments in communities like Fulton and surrounding rural areas due to the USF budget concerns, instead making minimal investments just to keep existing network plant operational rather than upgrading that network for higher-speed broadband that would help those areas thrive.
- In Nebraska, a small company with only 12 employees that just recently completed a significant fiber-to-the-home project has declined to fill four open positions – effectively cutting its workforce by 25% – because of concerns with declining USF support and its impact on the ability to pay for the network construction already completed.
- In Iowa, a small carrier has not been able to lower its prices for standalone broadband because the USF budget cuts are effectively wiping out any support for such connections, despite the intention of the reforms and the repeated calls for such a fix from Congress.

Moreover, the USF budget control can and will vary from period to period, undercutting the kind of predictability that is mandated by law and needed when evaluating long-term future investments. For the last 4 months of last year, the budget control was 4.5% on average; for the first six months of this year, it rose to 9.1% on average. Now, as of July 1 of this year and for the twelve months after that, the budget control will on average reduce USF support for small businesses by 12.3%. This kind of unpredictability is particularly challenging, if not defeating, for smaller operators seeking access to loans and trying to identify the business case for sizeable, fixed long-term investments.

Fortunately, it is not just NTCA that is concerned about the USF budget shortfall. In May 2017, nearly 170 Members of Congress – including Representatives Blum, Comer, King, Luetkemeyer, Marshall, and Velazquez – wrote to the FCC expressing serious concern about how the USF budget shortfalls will undermine private infrastructure investment and consumer rates. This letter demonstrated the sizeable and shared bipartisan interest in prompt action on this issue, and a window of opportunity exists. We are hopeful that with continued congressional interest and leadership we can see these issues addressed, and the promise of last year’s USF reforms can be realized by the millions of rural consumers served by smaller rural network operators.

In short, as NTCA summarized in a recent filing with the FCC, “while much effort may have gone into rebuilding ‘the engine’ of non-model USF reforms, the ongoing lack of ‘gasoline in that engine’ (in the form of sufficient budget resources) risks rendering its operation inefficient at best and utterly ineffective at worst.” This budget crisis – captured in the form of the new budget control mechanism – is undermining further deployment as small telcos will factor estimated support reductions into future planning efforts and scale back investments. Some small companies

are already reporting cancelled construction projects and loan applications for upgrades due to the insufficient High Cost budget.

Remedying this USF budget concern is imperative to the sustained delivery of affordable, high-quality broadband service to consumers and small businesses that this subcommittee and so many other members of Congress hope to see in rural America. At a time when the focus is increasingly on deploying better infrastructure faster, the continued imposition of this USF budget cap at seven-year-old levels translates to a contrary result of lower-speed broadband to fewer locations at higher rates. The FCC has taken steps to finally adopt and implement reforms as discussed above, but there is still much more work to be done to make sure the reforms and programs actually work as intended. Whether Congress or the FCC acts to provide funding to make up for these High Cost shortfalls, inaction is not an option if we truly want to see the goal of universal service realized and investment in broadband sustained in rural America.

The Connect America Fund II Auction

In 2011, the FCC undertook steps to reform High Cost USF support in rural areas served by the 13 large “price cap” carriers as well, rebranding the High Cost program in these areas as a “Connect America Fund” (or CAF). Under a cost model developed over the following several years, these large carriers were extended “offers” of model-based USF support that provided a certain amount of funding in exchange for “state-level” commitments to deploy broadband to a specified number of locations. While many of these state-level commitments were accepted by the larger “price cap” companies, this was not unanimous – and the FCC also excluded very high cost portions of their serving areas from the offers of model support in the first instance. As a result, some rural areas served by these larger companies will go up for “auction” pursuant to rules now under development.

The FCC is currently implementing a “reverse auction” to determine which carrier will receive USF High Cost support through the CAF to serve these remaining price cap areas. Providers that demonstrate ability to offer reliable voice and broadband will be allowed to bid in the “CAF II auction.” For each area, the FCC will set a reserve price, or ceiling, that represents the maximum amount of support a carrier will receive to serve an area on a per location, per month basis, and the lowest bidders in a national auction will receive USF support for ten years in exchange for a commitment to build broadband to locations within their bid-upon areas within six years.

In keeping with the Communications Act principle that mandates the availability of reasonably comparable services in rural and urban America alike, the FCC established a framework of bidding weights that recognizes what sorts of services are generally available in urban areas and the value of networks that will scale to meet anticipated increases in demand over time. NTCA had

advocated for weights that recognize greater value in “future-proof” networks that will not be obsolete before the decade is up.

A traditional infrastructure analogy may resonate: if one projects that car traffic is doubling every few years on a single-lane road, one likely does not rebuild the new highway with only two lanes and then go back to add two more lanes a few years later and yet two more lanes a few years after that. Instead, given the relatively high costs of infrastructure deployment and the disruption involved in repetitious construction, one builds the highway “the right way” the first time.

NTCA believes the same should be true of our broadband networks. We should look for a balanced approach to reach as many locations as possible, but not at the societal and economic cost of deploying networks that in only a few years’ time will look obsolescent and inadequate for the users consigned to them.

The areas that will be served by CAF II auction winners have some of the worst broadband service in the country – some even still use dial up. It has taken six years just to get to the point of being *on the cusp* of the auction. It is time to move forward with the auction finally.

Yet, even as the FCC turns its attention to finalizing the auction procedures, a handful of interests are looking to relitigate the bidding weights in favor of services with slower speeds and higher latency. Although the CAF II weights that the FCC adopted are not what NTCA would have wanted, the FCC’s decision with respect to CAF II auction weighting represents a consumer-oriented compromise after all interested parties had opportunity to comment.

The FCC’s rules strike a reasonable balance between technological neutrality and service quality, taking appropriate account, for example, of the fact that the auction winner may be the only voice provider for that rural area and the need for networks that will be sustainable and respond to consumer demand over the next decade. We hope that the FCC will proceed forward with the promise of the CAF II auction, rather than taking a step backward now to revisit auction rules that are already years in the making.

The Mobility Fund

The FCC’s 2011 USF reforms also created the Mobility Fund, a universal service mechanism dedicated to supporting mobile service in high cost areas. Mobility Fund support will also be distributed through a reverse auction, so determining which areas need the support is key. Like the CAF program, Phase II of the Mobility Fund represents the long-term promise of a long-running effort to modernize how mobile networks and services are supported and target support to rural areas in need.

The FCC is currently considering how to structure a challenge process that would reveal which areas need support, but suggested beginning with carrier-submitted data containing known inaccuracies. This data likely overstates coverage – and therefore risks that areas will be erroneously declared ineligible for funding – because carriers use their own standards when claiming that an area is served and because the level of data (the granularity) is less than precise.

The FCC must begin with accurate data to ensure that support goes where it is most needed. Providers claiming to serve an area competitively should bear the burden of validating their data and actual coverage *as a starting point* in this process – putting the burden on others to “prove a negative” (*i.e.*, to claim that another provider does *not* actually serve a claimed area) makes little sense and is highly inefficient. NTCA hopes that the FCC will place the burden of validating purported coverage where it belongs – on the party in the best possession of the information needed to make that validation.

Finally, it cannot go without saying that wired and wireless broadband work in concert to provide consumers with the full broadband experience – access to data on the go, and a robust connection when at a fixed location such as a home or office. Further, the demands on the wireless network are so great that meeting them requires that a fiber-connected tower or small cell be near the mobile user at all times, meaning an extensive fiber network is essential to bringing the world of mobility to life for every consumer.

For rural consumers to truly have a reasonably comparable and affordable broadband experience, the FCC must budget accordingly and implement the new USF mechanisms with great care and precision. Placing too much hope on mobility alone without recognizing “wireless needs wires” is a recipe for failure, particularly in rural areas where distance and topography can challenge and frustrate the widespread deployment of mobile networks and services.

Contributions – How All This Gets Paid For

Of course, the long-term sustainability of these initiatives ultimately depends on updating a contributions framework that is not built for a 21st century communications ecosystem. While there are many differing views on how this should be done, the basic notion that those who make use of communications networks should contribute to the well-being and universal availability of those networks is hard, if not impossible, to argue.

Nonetheless, all of the important initiatives discussed above are supported by a shrinking base of legacy services that do not represent the majority users of our communications networks – we are building and trying to sustain universal broadband on the backs of telephone services that are declining over time. This would be like trying to recover the costs of building a highway system based upon assessments on only horseshoes and buggy wheels. Assuming all agree that universal

service is an important public policy – and Congress long ago said it is by statute – rationalizing and reforming contributions requirements is essential to firm up the foundation of universal service for the 21st century.

INFRASTRUCTURE INVESTMENT AND BARRIERS TO DEPLOYMENT

This Administration has already recognized the importance of advanced communications infrastructure as a policy priority, having included “telecommunications” within an initial list of infrastructure priorities even prior to taking office. Since then, Secretary of Commerce Wilbur Ross and Secretary of Transportation Elaine Chao have both stated that broadband buildout is an “essential part” of infrastructure. And on Capitol Hill, nearly 160 members of Congress sent a letter in January to the President urging him to include broadband within any broader infrastructure initiative.

Including a broadband component in any infrastructure plan can play an integral part – and is an essential part – in getting broadband deployed to unserved areas and sustaining networks where they already exist. As Congress works with the Administration on an infrastructure package, NTCA offers a few key objectives for consideration, building upon suggestions first outlined in a December 2016 letter to the National Governors Association when that group was evaluating infrastructure priorities in collaboration with the Presidential transition team.

First, any infrastructure proposal should at least account for, if not specifically leverage, what is already in place and has worked before. Creating new programs from scratch is not easy, and if a new broadband infrastructure initiative conflicts with existing efforts, that could undermine our nation’s shared broadband deployment goals. For these reasons, strong consideration should be given to leveraging – and supplementing – the existing High Cost Federal Universal Service Fund programs as a primary means of implementing a broadband infrastructure initiative.

The USF programs have been in place for years, and as explained above, the Commission has recently reoriented them under the “Connect America Fund” banner to promote broadband in high-cost rural areas. With additional resources but with very little additional “heavy lifting,” these programs could “hit the ground running” and yield immediate, measurable benefits for rural consumers.

Other options could include alternative grant or capital infusion programs, comparable to what several States have used to address “market failure areas” – places where the business case for investment is difficult, if not impossible, to make without additional resources. However, creating such programs would require more administrative effort than leveraging existing programs.

Another benefit of leveraging the reformed High Cost programs in some manner is that these programs now compel significant accountability. There are multiple levels of caps on operating expenses, caps on capital investment expenses, and measures to ensure that support goes to where it is needed rather than overbuilding other networks built without support. Atop that, there are requirements to geocode locations where broadband is installed, so policymakers and the public alike will be able to track where broadband has been extended via the programs. There are also multiple compliance checks as well as frequent and detailed audits and reviews that are comparable in many respects to IRS audits.

Second, “future-proof” networks represent the best means to ensure robust and affordable broadband will become and remain available throughout our country. While a short-term view might result in investing in cheaper technology upfront, precious public and private resources are likely to be wasted when those broadband investments need to be rebuilt in only a few years to keep pace with the kinds of services that both urban and rural consumers demand. It is therefore important that any supplemental resources that may be made available through a broadband infrastructure initiative deliver the best, most balanced payback for both the American taxpayer and the users of the networks – both in the near-term and over the life of that infrastructure.

Third, infrastructure investment depends not only upon financing but also upon prompt acquisition or receipt of permissions to build networks. Barriers or impediments to broadband deployment must also be addressed as part of any holistic plan to promote and sustain infrastructure investment. Such roadblocks, delays, and increased costs are particularly problematic for NTCA members, each of which is a small business that operates only in rural areas where construction projects must range across wide swaths of land.

Permitting and access, particularly with respect to federal lands, can present a significant impediment to the deployment of rural broadband infrastructure. Navigating byzantine application and review processes within individual federal land-managing and property-managing agencies can be burdensome for any network provider, but particularly the smaller network operators that serve the most rural 40 percent of the U.S. landmass. The review procedures can take substantial amounts of time, undermining the ability to plan for and deploy broadband infrastructure – especially in those areas of the country with shorter construction seasons due to weather.

The lack of coordination and standardization in application and approval processes across federal agencies further complicates the deployment of broadband infrastructure. While not specifically regarding federal lands, the terms of local franchises, pole attachments, and railroad crossings can also create substantial costs and concerns in deploying broadband infrastructure. Government at all levels – state and local, counties, tribal lands, and Federal – should work collaboratively to harmonize their process to expedite placement of facilities.

These issues are very real and affect broadband network operators and consumers. In Wyoming, the Bureau of Land Management state office adopted a unique bonding policy and application process that appeared to equate deployment of telecom facilities with installation of pipelines transporting hazardous substances, increasing dramatically the application burdens and the potential costs. In South Dakota, a small rural provider's multimillion-dollar fiber deployment requiring U.S. Forest Service approval encountered permitting holdups delaying completion more than a year.

We have seen much agreement for some time now on solutions to simplifying the administrative barriers to deployment. The standardization of application, fee and approval policies and procedures across federal land-managing and property-managing agencies to the extent possible should be a high priority for executive order. The MOBILE Now legislation contains changes that should be considered for near-term implementation on federal lands, such as improved “shot-clock” measures, while the FAST Act included sound reforms that should be extended to smaller projects as well. Such actions would enable smaller operators to remain focused on providing high-quality broadband service to their customers rather than dealing with onerous regulations.

BROADBAND REGULATION

IP Interconnection

The so-called “net neutrality” (or “Open Internet” or “Internet Freedom”) debate is of course the hottest topic in communications policy these days. This debate has broad and important implications for small businesses and consumers alike – but it is also not a “black and white” debate. As with anything so complex, there are nuances that make the question of how we want broadband networks to work something that requires careful thought, and may ultimately require congressional clarification.

With all the heated rhetoric that often surrounds “Title I vs Title II,” the practical issues that underpin the net neutrality debates in the first place can get lost in the shuffle. Nonetheless, NTCA has consistently focused on the practical balance between “right-sized” rules and what can happen in the absence of any rules at all. We do not need – the broadband marketplace does not need – heavy-handed, one-sided regulation that favors certain segments or gets in the way of innovative offerings for consumers. At the same time, without some basic “rules of the road” to guide how companies interact with one another in the communications marketplace, there is the potential for chaos that will adversely affect rural consumers and smaller providers who need clarity and certainty to overcome the challenges of their markets.

When people ask why NTCA takes such a “middle ground” in the net neutrality debates, we ask in response what would have happened if the FCC lacked authority to address concerns about rural

call completion. For those on these subcommittees not familiar with this issue, over the past decade we have seen a segment of the industry decide from time to time that it is not worth the time, effort, or cost to make sure calls reach rural America. No one has disputed that this is a problem, and the FCC has helped put rules into place intended to find the sources of the problem and discourage (and even punish) such behavior.

Translate that now into a broadband environment where, say, a massive online video streaming service could decide in the future that it is too much trouble to deliver its data to selected rural markets, or a major backbone/transit provider might decide to increase substantially the prices for (or deny altogether) interconnection with small businesses in rural America. If that happens – and while it might seem a remote risk, who would have thought someone might decide to stop delivering phone calls to rural America either? – there needs to be someone to turn to make sure that rural America can stay connected with the rest of the world.

This is what drives NTCA’s “middle ground” view on net neutrality questions on behalf of our small business membership. A basic “regulatory backstop” that ensures that data can flow seamlessly across networks of all kinds – and that a “cop on the beat” is there if and when things break down – is essential. Without some fundamental framework in place, what can help to ensure interconnection and universal service in a broadband world?

To be clear, we do not want a heavy-handed regulatory framework; as I will discuss momentarily, we have seen where that leads, and it has harmed small businesses and the broadband marketplace. A light-touch “regulatory backstop” is very different than the heavy-handed retail regulation that we saw in the wake of the Open Internet Order. Instead of basic “rules of the road” and principles to make sure data flows seamlessly, we saw an aggressive regulatory platform that favored certain segments by applying one-sided interconnection rules and other burdensome requirements only to retail Internet Service Providers.

Broadband Privacy

Fortunately, we have seen efforts to “correct” this heavy-handed approach for the benefit of consumers and the small businesses that serve them. Earlier this year, both houses of Congress invoked the Congressional Review Act (CRA) to block implementation of the FCC’s privacy rules, which were adopted last October under the previous Administration. In its privacy Order, the FCC had required broadband Internet access service providers to obtain “opt in” consent from customers before using or sharing customer information, such as geolocation, financial and health data, web browsing and app usage history, and the content of communications. The order also subjected such providers to requirements to provide customers with certain notices about how their data could be used.

Prior to the congressional action, NTCA filed comments at the FCC and joined a successful petition for stay that requested suspension of the rules pending resolution of reconsideration petitions. Throughout the FCC proceedings, NTCA urged the Commission to be guided by the Federal Trade Commission (FTC) policies that govern edge and application providers, which would ensure a consistent standard of care across the broadband marketplace. NTCA noted that there was no logical justification to subject network operators to unique, more onerous standards, and that the Commission could have instead more effectively used any authority it had to mirror the FTC approach and foster a seamless and level user experience across the broadband ecosystem. The burdensome rules would have imposed considerable costs on smaller operators.

By successfully invoking the CRA, Congress effectively barred the FCC from issuing another rule in substantially the same form as the disapproved Order and forced the unwinding of the changes adopted in the privacy Order. Since these rules had largely never taken effect to begin with, the practical effect is that nothing has changed. But NTCA stands by its statements in the proceeding at the FCC – its members are committed to preserving and protecting the privacy of their customers, and they are interested in consistent standards of care and duties to protect information for all actors in the broadband marketplace. We are hopeful that the FCC and FTC can work together to consider frameworks that achieve a more consistent and holistic outcome that protects, rather than confuses, consumers without placing unreasonable, lopsided burdens on any one segment of the broadband marketplace.

Enhanced Transparency Requirements

The FCC's broadband classification in 2015 also obligated broadband service providers to include "enhanced" disclosures of information to customers about packet loss and other network performance metrics and practices, such as data caps and allowances, and prices and promotional rates. Because the new requirements were viewed as potentially burdensome for smaller operators such as those in NTCA's membership, the FCC thankfully granted those with 100,000 or fewer subscribers an exemption from the requirements until December 15, 2015, and then extended the exemption for another year. Despite a stay request filed by NTCA and others, the issue remained unresolved during the transition between administrators, and the burdensome "enhanced transparency" rules technically became effective on January 17, 2017.

Throughout this nearly two-year winding road, Senator Steve Daines and Representative Greg Walden pursued a legislative response by introducing bills that would have extended the exemption for another five years for providers with 250,000 or fewer subscribers. The bills also called upon the FCC to issue a report determining whether the exemption should be made permanent and if the small business definition should be modified. The full House of Representatives passed its bill in January and the Senate legislation is currently awaiting committee consideration. And in February, the FCC adopted an Order relieving providers with 250,000 or fewer connections from the

enhanced transparency requirements until 2022. Small carriers are counting on Congress to remain engaged in these issues to ensure regulatory certainty that promotes investment and even-handed regulation that accounts for the challenges small companies face.

We are grateful to the leaders in Congress and at the FCC who have helped to address the concerns of heavy-handed, one-sided regulation in the name of an “Open Internet.” At the same time, NTCA emphasizes the continuing importance for consumers in rural areas and the small businesses that serve them of having some basic “rules of the road” to ensure those markets stay interconnected and that the goals of universal service are not undermined in a broadband world. A complete regulatory vacuum will not serve rural consumers or small service providers well.

THE REGULATORY FLEXIBILITY ACT

Congress passed the Regulatory Flexibility Act (RFA) in 1980 to direct federal agencies, when promulgating rules, to incorporate analysis of more flexible regulatory approaches that account for the unique challenges that small businesses face. The RFA’s goals are worthy and necessary to prevent “one-size-fits-all” rulemaking with inherent costs that only large companies have the resources to readily absorb. Though the RFA has helped small businesses save money, agencies are all too often able to satisfy the law’s requirements with cursory, rote mentions of the RFA in rulemaking documents.

Indeed, the DC Circuit ruled in 2004 that the RFA’s requirements are “purely procedural” and require only that an agency explain a rule’s impact on small businesses – and courts generally defer to these explanations, including explanations of why a rule’s impact is reasonable. Because the RFA requires little to nothing more in substance, it is incumbent upon agencies of their own volition to follow the spirit and the letter of the RFA for small businesses to benefit from the additional analysis – and that has rarely been the case at the FCC in the past.

Close adherence to the purpose of the RFA would benefit small, rural broadband providers tremendously, which in turn would promote broadband investment in rural areas. For example, several items mentioned above could have been improved or avoided with better RFA analysis – be it the hard cap on the High Cost program budget (which is rescinding 12.3% of USF support over the next twelve months for hundreds of small businesses), the broadband privacy rulemaking, or the Open Internet Order’s “enhanced transparency requirements” that technically applied to small providers for a period of time earlier this year.

One can imagine how this practice of “see saw” rulemaking leaves small companies in a constant state of uncertainty and thereby distracts them from their core business of investing in broadband. Robust compliance with the intent and letter of the RFA would benefit everyone by making the regulatory process more certain for small businesses.

We see promise in various bills under consideration in this Congress to improve the RFA and force agencies to come into greater compliance with the law's intent. For example, early in this session Congress passed the Regulatory Accountability Act (HR 5), Title III of which contains much of the Small Business Regulatory Flexibility Improvements Act (HR 33). Section 304(d) of HR 5 would require an economic assessment to accompany any agency certification that a rule will not have a significant economic impact on a substantial number of small entities. Moreover, involving the Small Business Administration (SBA) to a greater degree in the rulemaking process would improve RFA compliance, and thus we see real promise in Sec 305(a), which would empower the SBA to issue rules standardizing and governing agency compliance with the RFA.

Further, Sec 306 would require all agencies to incorporate "SBREFA panels" into their rulemaking processes, which, prior to rule publication, would require agencies to supply SBA with rulemaking materials and information on a rule's potential impact on small companies. SBA would then accept input on the proposed rule from affected small businesses and convene a review panel with representation from SBA and the agency making the rule. After analyzing the proposed rule and accepting input, SBA would report on the rule's impact on small businesses and propose alternatives. The rulemaking agency would then be required to respond to the SBA report in the rulemaking.

We commend the House for passing this legislation as part of HR 5 earlier this year, we were encouraged to see the Senate report a similar bill out of committee a few weeks ago, and NTCA urges you to ensure these improvements are signed into law in this Congress for the sake of providing a more fair and certain regulatory environment for small companies.

CONCLUSION

Robust broadband must be available, affordable, and sustainable for rural America to realize the economic, healthcare, education, and public safety benefits that advanced connectivity offers. The High Cost USF program is key to helping rural America get and remain "online" with the rest of the world, but the Communications Act principle of reasonably comparable services and rates cannot be realized under an outdated High Cost budget that is insufficient to support just those broadband investments already made. If the FCC fails to address the shortfalls in the High Cost budget, even perfectly-designed support mechanisms cannot and will not ensure that consumer demand for robust broadband is met, nor will a comprehensive package of tax incentives, bonds, and loans where the basic business case for investment is so lacking.

In addition to the significance of the High Cost USF for small business network operators in rural areas, other measures are important to facilitate their operations, to allow them to focus on the business of serving the communities in which they live and work, and to enable them to deploy

broadband-capable networks across rural America. Federal permitting reforms such as standardizing application and approval processes across agencies and revising loan sequencing regulations to allow costly environmental and historical reviews to come after funds are obligated are important pieces of the rural broadband puzzle too for smaller network operators. Greater agency adherence to the purpose of the RFA would help as well, freeing up essential time and resources for small, rural-based broadband providers to achieve their mission of delivering robust broadband rather than focusing upon compliance with “one-size-fits-all” regulations that do not reflect the unique challenges of being a small business in rural America.

NTCA thanks the subcommittee for its leadership on and interest in small business issues, and we look forward to working with you on behalf of our hundreds of small operator members and the millions of rural Americans they serve.