BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing an Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109

COMMENTS OF INTERNET2

Introduction

Internet2 respectfully submits these comments in response to the Commission's recent Notice of Proposed Rulemaking (NPRM) regarding reform of the high-cost program within the federal Universal Service Fund and creation of the Connect America Fund ("CAF"). Internet2 is a not-for-profit consortium of more than 200 U.S. research universities, government agencies and laboratories, companies, and regional networks that provide advanced networking for a wide range of community anchor institutions. Internet2's network connects over 66,000 community anchors in the United States (including K-12 schools, community colleges, colleges and

universities, federal and corporate research laboratories, libraries, museums, hospitals and clinics) and interconnects with over 80 international networks.

Discussion

In this proceeding, the Commission requested comment on the nature of the public interest obligations, and sharing or other requirements, that should be placed on CAF fund recipients. In this regard, Internet2 recommends that the Commission adopt rules ensuring that recipients of CAF funding connect to community anchors in the relevant geographic area and to the national Research and Education ("R&E") networks (ordinarily via the closest Regional Operating Network ("RON"))[1] where such anchors wish for such connections to occur.[2] The Commission should adopt such rules because (i) it should take all steps necessary to ensure that community anchors in currently unserved areas do not get left behind with respect to their all-important broadband needs when residential broadband service becomes available in their localities; and (ii) such rules will enable the Commission to ensure that Section 8.22 of the National Broadband Plan is realized.

Unless providers who receive CAF funding connect to community anchors in the geographic area that those providers will be serving through use of the CAF funds, such community anchors may be in a far worse position than all other anchors in the country with regard to broadband services. And while the cost of connecting to such rural community anchors is relatively small where a provider is already planning to provide broadband to residences in the same area, the benefits are extraordinary. This administration has repeatedly recognized the tremendous benefits that community anchors provide the public. In fact, because of these benefits, the second round of NTIA's BTOP infrastructure funding focused on community

[1] RONs are state or regional optical networks that are members of the R&E Community and typically connect to Internet2's network.
[2] Internet2 and National LambdaRail operate the national R&E networks.

anchors, while the National Broadband Plan in Section 8.22, as well as many other sections, discussed the tremendous importance of community anchors. Moreover, ensuring that community anchors' broadband needs are met throughout the country (and these needs vary greatly from those of residential users) is not only critical because of the benefits these anchors provide directly to consumers but also because they help increase the demand for broadband services. That is, the demand for broadband services is lowest in low income, rural areas, which are the types of areas that the CAF funding will support. Yet, the two primary reasons for such low demand (where service is available) are affordability and a failure to recognize the importance and functionality of broadband. But community anchors often provide the only free broadband access for residents, and many community anchors have staff that provide free training to users. Accordingly, community anchors can help combat both of the main causes for low broadband demand.

In addition, the Commission has a golden opportunity here to ensure Recommendation 8.22 of the National Broadband Plan is realized. Recommendation 8.22 provides that "the federal government and state governments should develop an institutional framework that will help America's anchor institutions obtain broadband connectivity, training, applications and services."[3] With respect to this recommendation in the National Broadband Plan, the Commission stated as follows:

> Government should take additional steps to enable … community institutions to better utilize their connectivity to provide a better quality of life for all people. One approach to ensure connectivity for facilities that serve public purposes is to give a non-profit institution the mission and capability to focus on serving the broadband needs of public institutions, including health clinics, community colleges, schools, community centers, libraries, museums, and other public access points. In the past, the connectivity needs of research institutions have been met by non-profit research and education (R&E) networks such as Internet2 and National LambdaRail. R&E networks played a central role in the development

[3] See Federal Communications Commission, National Broadband Plan (March 16, 2010) at p. 154.

> and growth of the Internet itself through ARPANET and later NSFNET. Today, similar R&E networks provide high-speed (10 Mbps-1 Gbps) connectivity to 66,000 community anchor institutions. But more can be done—it is estimated that only one-third of anchor institutions have access to an R&E network today. This model should be expanded to other community institutions.
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> ...
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> Expanding the R&E network model to other anchor institutions would offer tremendous benefits. .... Working with the R&E and non-profit community, the federal government and state governments should facilitate the development of an institutional framework that will help anchor institutions obtain broadband connectivity, training, applications and services.[4]

NTIA has begun the process of ensuring that the R&E model is successfully expanded to other community anchors by awarding more than $62.5 million in federal stimulus funding to Internet2 for a 100 Gbps community anchor backbone network, as well agreeing to fund many of the BTOP proposals submitted by RONs. But to complete the picture, community anchors in the areas where CAF funding will be used cannot be left out of this opportunity to have the benefit of the 100 Gbps community anchor backbone network funded by BTOP. And the only way to ensure that such anchors will not be left behind in the broadband revolution is to require recipients of CAF funding to connect to such backbone network (ordinarily via the nearest RON) where a community anchor so requests.

Indeed, for anchor institutions, it is not only important for the end-user to receive high capacity broadband service, it is also critical that they receive this service **to** all locations they need to reach. That is, if a needed expert (whether a doctor, professor or other expert) is located in a distant city, it is extremely important that the network permits high capacity broadband connections between the end-user and such distant locations. Otherwise, the user may have access to nearby physicians or professors (for distance learning), but not to the highest quality professionals who may be located further away or in other states. By adopting the proposal set

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[4] Id. (emphasis added)

forth herein, community anchors in areas to be served by CAF funding will receive the connections, services, applications and training they need. [5]

In fact, in the Rural Health Care Pilot Program Order, the FCC explicitly recognized the importance of health care facilities having access to high capacity connections nationwide through use of Internet2's network, stating as follows:

> Internet2 links a number of government research institutions, as well as academic, public, and private health care institutions that are repositories of medical expertise and information. By connecting to this dedicated national backbone, health care providers at the state and local levels will have the opportunity to benefit from advanced applications in continuing education and research. In addition, a ubiquitous nationwide broadband network dedicated to health care will enhance the health care community's ability to provide a rapid and coordinated response in the event of a national crisis. [6]

Accordingly, pursuant to that program, the FCC agreed to help fund the construction of health care networks that would connect to Internet2's network.[7]

Finally, it is important that the fund allow for long term investment and multi-year contracts to make it viable for providers to build in to high-cost or underserved areas. If the CAF only allows 1-year contracts, it will necessarily limit providers to large incumbents and "average" services that have business models averaged across available customers. If the CAF is going to move the country forward, it needs to allow for 5-8 year contracts where the competitive bidding is strong and up front, but where a vendor can be assured the opportunity to recover their investment.

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[5] For a general discussion of the benefits of R&E Networks with respect to capacity, services, applications and training, see Reply Comments of U.S. R&E Networks & HIMSS, NBP Public Notice No. 30, GN Docket Nos. 09-47, 09-51, 09-137 (January 27, 2010) at 13- 23.
[6] In re Rural Health Care Support Mechanism, Order, WC Docket No. 02-60, FCC 06-144 (2006).
[7] Id. at par. 2.

Conclusion

For the foregoing reasons, the Commission should adopt rules consistent with these comments.

Respectfully submitted,

Internet2

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