



April 13, 2009

The Honorable Gary Locke
Secretary, U.S. Department of Commerce
Office of the Secretary
U.S. Department of Commerce
1401 Constitution Ave, NW
Washington, DC 20230

The Honorable Tom Vilsack
Secretary, U.S. Department of Agriculture
Office of the Secretary
U.S. Department of Agriculture
1400 Independence Ave, SW
Washington, DC 20250

The Honorable Anna Gomez
Acting Assistant Secretary
Deputy Assistant Secretary for Communications and Information
Office of the Assistant Secretary
National Telecommunications Information Administration
U.S. Department of Commerce
1401 Constitution Ave, NW
Washington, DC 20230

Re: Request for Information on Section 6001 of the American Recovery and Reinvestment Act of 2009 Broadband Initiatives (Docket No. 090309298-9299-01)

Dear Secretary Locke, Secretary Vilsack, and Assistant Secretary Gomez,

EDUCAUSE is pleased to submit these comments concerning the implementation of the broadband funding provisions of the American Recovery and Reinvestment Act of 2009 (ARRA). EDUCAUSE is a non-profit association of over 2200 colleges and universities. We represent the interests of the information technology (IT) professionals on campus – from the Chief Information Officers (CIOs) to the professionals who keep the network up and running on a day to day basis.

The members of EDUCAUSE are deeply concerned about the inadequate level of broadband connectivity in the United States and the severe impact this shortage of broadband facilities is having on education. In January 2008, we released a paper called "*A Blueprint for Big Broadband*,"¹ which explained in detail the limitations of the United States broadband policy and performance. Among its conclusions were:

¹ <http://net.educause.edu/ir/library/pdf/EPO0801.pdf>

1. Internet usage is growing far faster than the supply of broadband facilities. The trends show that homes will soon require a minimum of 100 Megabits per second (Mbps) speeds for distance learning, videoconferencing, research and student-teacher collaboration, entertainment, and tele-health and other applications. The need for speed is particularly urgent because of the nation's conversion to digital video signals (HDTV) that consume much more bandwidth than analog video.
2. The U.S. broadband industry has not been investing enough to meet this growth in demand. The U.S. international ranking in several measures of broadband connectivity has fallen dramatically over the past decade. There is a growing consensus that the government has been relying on free market/private enterprise solutions to our broadband needs, while other nations have been moving forward with government sponsored efforts to promote broadband deployment and use.

EDUCAUSE is extremely pleased with the enactment of the ARRA that responds, in part, to the information and arguments set forth in the *Blueprint for Big Broadband*. Although the amount of funding made available in the ARRA is less than we proposed, we believe that the funding in the ARRA, if administered correctly, can significantly boost America's broadband connectivity, enhance the use of broadband technologies in promoting education, and ultimately create enhanced opportunities for learning and research.

EDUCAUSE would like to make the following suggestions for the rules regarding these programs:

1. NTIA and RUS should give the highest priority to applications proposing to serve institutions.

While \$7.2 billion is a significant amount of funding, it is an insufficient amount of money to accomplish the larger objective articulated in the *Blueprint for Big Broadband* – building 100 Mbps capacity to every home and business in America.² The amount of \$7.2 billion should be considered a down payment on the future. EDUCAUSE believes that the U.S. will obtain the most “bang for the buck” by building high-capacity broadband connections to institutions such as colleges, universities, schools, libraries, health care facilities, and other community organizations mentioned in Section 6001(b)(3).³ These institutions provide a valuable service to the community, they have a need for greater broadband, and their budgets are often so constrained that they are unable to afford the high-capacity connections that are necessary.

² The *Blueprint* estimated that it would cost approximately \$97 billion to reach this goal and suggested that network operators, states and the federal government should each contribute approximately one-third of this amount.

³ According to Section 6001(b), one of the purposes of the program is to –

“(3) provide broadband education, awareness, training, access, equipment, and support to—
(A) schools, libraries, medical and healthcare providers, community colleges and other institutions of higher education, and other community support organizations and entities to facilitate greater use of broadband service by or through these organizations;”

Furthermore, providing funding to serve these institutions can help drive broadband deployment to homes and small businesses. These institutions often serve as “anchor tenants” on a broadband network. Once the facilities are deployed to serve the needs of these institutions, whether through the extension of “middle mile” or “last mile” facilities, the network then becomes available to address the needs of the surrounding homes and small businesses. To illustrate, it will be less expensive to build out to homes if a fiber ring has already been built around the city to serve the hospital, the library, the town hall and the community college; it will be less expensive to install broadband wireless if the “middle mile” high-capacity trunks are in place and affordable.

Under the statutory language, ALL schools, libraries, health care facilities, community colleges and institutions of higher education are eligible for grants, even if they may have some level of broadband service today. Congress chose *not* to limit funding to only those institutions that are “unserved” or “underserved.” The “unserved”/“underserved” language only applies to residential consumers in (b)(1) and (b)(2); no such limitation applies to the institutions in (b)(3) through (b)(5). This is not to say that all such applications to or for these institutions should be granted; Congress merely indicated that applications to serve these entities should be considered on their merits and should not be arbitrarily dismissed.

This approach reflects Congress’ desire to promote affordable access to broadband services to the largest number of people at the highest possible speeds. There is no reason to disallow funding to a community college that needs a T1 connection to serve its students and faculty simply because it is located in a residential area that is “served” by DSL services. There is no reason to disqualify a university from obtaining funding for a fiber connection simply because the residences around it can receive cable modem service. Community colleges, universities, and other entities identified in (b)(3) should be eligible for funding because they aggregate large groups of consumers and have a need for high-capacity broadband connections independent of the surrounding households.

Institutions will need even more bandwidth in the future as demand continues to grow. For instance, state education and research networks, which are often created specifically for the purpose of providing broadband connectivity to these institutions identified in (b)(3), should have the right to seek funding to add to their broadband capacity or to extend the reach of their networks. Thus, NTIA and RUS should give priority to those applications proposing to serve schools, libraries, health-care facilities, higher education and other community organizations that aggregate large numbers of people.

2. NTIA/RUS should give priority to applications that invest in “future-proof” technologies.

These federal funding programs are an opportunity to invest in America’s broadband future. Rather than use the funds to invest in short-term, transitional technologies that may be overcome by demand growth in the near term, funds should be invested in technologies that will last for decades. For the general purpose Internet, we suggest a goal of 100 Mbps to every home and business; but to keep the U.S. competitive internationally

and to facilitate the essential research applications in use today and in the future, networks and equipment that provide Gigabit speeds to research facilities should also be included in the funding.⁴

3. All levels of government should be involved in creating our national broadband policy.

We urge the government entities to work together to develop a cooperative and integrated policy that avoids the regulatory and jurisdictional battles of the past. The U.S. should complete a comprehensive strategy that involves government officials at all levels – federal, state and local – and includes the private and public sectors as well.

4. All potential builders of broadband capacity should be found eligible to apply for funding.

The federal government should promote investment by all types of entities – private commercial companies, states and local governments, and non-profit institutions. State and regional research and education networks, for instance, have a proven track record of serving the broadband needs of K-12 schools, libraries, museums, state and local governments, health care, and higher education institutions. Research and education networks often partner with private sector entities to serve these institutions. Filling our broadband needs will require the active participation of commercial and non-commercial entities.

5. Strong non-discrimination, network interconnection, and wholesale access language should apply to those broadband providers serving the general public, but should not apply to private networks.

Commercial broadband providers that offer service to the general public must not operate their networks in such a way that privileges, degrades, prioritizes, or discriminates against any lawful Internet content, application, or service transmitted over the grant recipient's network. It is essential that the commercial broadband providers that serve the general public not be allowed to skew the marketplace or discourage innovation at the edge of the network by engaging in prioritization or discrimination. These commercial networks should have a duty that goes beyond the FCC's "four principles" to treat all Internet traffic on a neutral and open basis. Therefore, we support adding a fifth principle to the FCC Broadband Principles to this effect. These five principles should also apply to RUS grant and loan recipients.

Furthermore, priority should be given to those commercial broadband providers that offer service to the general public that agree to make their networks available on a wholesale

⁴ Please refer to "Unleashing the Waves" submitted in these proceedings on March 23, 2009 by Ed Lazowska of The University of Washington on behalf of organizations that represent all 50 states, over 2200 colleges and universities, 30 state and regional networks, 44 corporations, and international reach to networks in 90 countries.

basis to multiple retail service providers. We believe this is the meaning of the language in the RUS portion of the ARRA. To be consistent, this priority should be a part of the programs administered by both NTIA and RUS.

Private networks, however, that are only offered to a closed group of users, such as intracorporate networks designed for internal communications among a corporation's employees, or private networks operated by universities exclusively for the benefit of their students, researchers, and faculty, should not be subject to regulation. The historical difference between networks serving the general public and private networks serving a limited group of users should continue to be respected.

6. Where possible, NTIA and RUS should encourage the construction of broadband facilities to all residential consumers.

To the extent that NTIA and RUS consider applications to serve residential consumers, EDUCAUSE offers the following approach:

- a. **"Unserved"** should refer to those consumers who have no access to broadband *in their homes*. Even if a consumer has access to broadband at work or at a community center, library, school, that residential consumer should be considered "unserved" if there is no broadband service available at his/her residence.
- b. **"Underserved"** should refer to residential consumers who have a broadband connection that is less than 100 Mbps service at their home. This definition allows the NTIA to prioritize projects based on the speed offered as one of several important criteria, such as subscription cost and access to equipment and training, and would encourage the industry to strive for the highest speeds possible in the most efficient way.
- c. **"Broadband"**: The FCC definition that defines different classes of broadband based on tiers of speeds is useful. These could be used to define criteria for scoring proposals as well as mapping results. Again, the goal should be ever increasing speeds to where 100 Mbps becomes the new minimum.

In summary, in developing the rules for applications and the priorities for judging grant proposals, EDUCAUSE recommends that the NTIA and RUS keep the process as open and flexible as possible. The process should involve input from all levels of government and allow applications from all potential providers of broadband access. Due to the limitations of the funding, priorities should be placed on proposals that provide high speed access to institutions that serve the educational, health, and other needs of its citizens. This deployment approach will also provide an important foundation for the extension of broadband to every home and business. Commercial networks that offer service to the general public should be open, nondiscriminatory, and provide wholesale access to competitors, but private networks that are restricted to serving a closed class of authorized users should not be subject to such requirements. Finally, proposals should be

judged on their effort to provide the highest speed, at the lowest rates, to the largest number of consumers.

Thank you for your time and consideration of these comments.

Respectfully,

A handwritten signature in black ink that reads "Mark Luker". The signature is written in a cursive style with a large, prominent "M" and "L".

Mark Luker, Vice President
EDUCAUSE