October 8, 2013

The STEM Advisory Council Broadband Committee is soliciting input from stakeholders all across Iowa who can offer insights into the unique broadband challenges facing the state, as well as provide thoughts on possible solutions. This input will help enhance efforts in developing effective policy recommendations to expand broadband access, adoption and use for all Iowans.

To offer comments, please address the questions below. All responses are considered public information, so please do not include confidential information in your response.

Name: Scott Bohler
Organization: Frontier Communications
Address: 2378 Wilshire Boulevard, Mound, MN 55364
E-mail: scott.bohler@ftr.com
Phone: (952) 491-5534

I. What barriers or other issues can you identify that may impede the increase of broadband access, adoption and use across the state?

Frontier is an incumbent local exchange carrier serving 37 exchanges across the western half of Iowa with traditional voice telecommunications and broadband services. Through use of investor capital, Frontier has provided broadband services in each of these exchanges for over ten years. Frontier has continued to invest in its broadband infrastructure and has achieved wireline broadband availability across 93% of its service area, leaving only the lowest density and highest cost areas of our service areas as unserved. The remaining unserved areas require substantial investment and uncertain customer take-rates. Frontier does offer satellite broadband services, which are available to customers in areas currently unserved by our wireline network.

From Frontier's perspective as a provider of broadband service to largely rural areas of the state, the primary barrier to increased broadband availability is cost; the cost to build facilities to that remaining fraction of unserved area. The cost to build and maintain the necessary infrastructure to serve this remaining area exceeds the revenue expected to be generated from that infrastructure investment.

Another important aspect of broadband service is transport. Just building facilities to reach the customer is only half the battle. Providers must also have sufficient transport facilities to carry that customer's traffic back to the internet backbone network. This is a continuing challenge, because subscriber usage of broadband bandwidth has increased significantly over time as applications use increasingly greater volumes of usage (bits). So a transport network that is sufficient to service 100 customers this year will not be sufficient to service those same 100 customers next year. On-going investment by providers in transport facilities is required just to maintain the existing customer base-generally, without a commensurate increase in the rates charged to subscribers.

Besides the high cost to serve rural areas, there are other factors that hinder the ability of providers to expand availability. One is the loss of large customers to publicly funded or municipal systems. The biggest customers in rural towns are generally the schools, governments, and similar entities. Since these locations are generally located in town, the costs to serve them are relatively low and the service revenues are significant. When these "low-cost, high-revenue" customers are lost to government-subsidized networks, private providers such as Frontier are deprived of the resources needed to provide service to the "high-cost, low-revenue" customers in more rural areas.

Low customer adoption rates also adversely impact the ability to expand broadband access. There is no real benefit to society just from the building of broadband networks; the benefit only comes when customers use those services. Unless customers actually purchase broadband services, providers will not have the funds to adequately maintain their existing network or expand that network. Impediments to adoption may include low computer literacy or ownership, as well as affordability issues for low income customers.

II. If you had to choose one *primary* barrier, what would that be?

The primary barrier is the high cost to build and maintain facilities in the remaining unserved areas.

III. What recommendations do you have to overcome these barriers?

Targeted financial assistance to providers to help fund the construction of broadband infrastructure in unserved markets would help supplement investor capital in reaching those highest cost service areas. For example, the state of Nebraska has a state-funded program that provides matching funds to help providers expand their networks.

The FCC has several pilot programs underway nationwide which are testing new approaches to encouraging broadband penetration and usage among the low income population. The state could look at the results of those pilot programs to see if there are successful approaches that could be applied here in Iowa.

IV. What are your expectations for future access needs?

Frontier has experienced significant increases in broadband consumption by its customers, year over year. That is, a subscriber uses more and more bandwidth over time. Frontier expects that this trend will continue and will require on-going infrastructure investment to meet those needs.

v. Other comments?