

MEMO

City of Charlottesville
David E. Brown
Jason Pearson, Treasurer

Albemarle County
Sally H. Thomas
Ann H. Mallek

Fluvanna County
Charles W. Allbaugh, Vice Chair
Chris Fairchild

Greene County
Carl Schmitt, Chair
Andrea Wilkinson

Louisa County
Richard Havasy
Jackson Wright

Nelson County
Fred Boger
Connie Brennan

Executive Director
Stephen Williams

To: TJPD Commissioners
From: Stephen Williams, Executive Director
Date: October 28, 2009

Re: Status Report on ARRA Broadband Initiative

Purpose: To brief the Commission on the status of regional initiatives related to broadband which are proposed to be funded through competitive grants from the American Recovery and Reinvestment Act of 2009 (ARRA).

Background: At previous meetings the Commission directed staff to work with member governments to develop a regional proposal for funding for broadband from the American Recovery and Reinvestment Act of 2009 (stimulus package). The Notice of Funding Availability (NOFA) for the ARRA Broadband Infrastructure Funds was released in early July, 2009. Based on a review of the NOFA with member localities it was agreed that it was not possible for the region or member governments to produce the specific plans and cost estimates necessary for a regional application. Representatives of the member governments agreed that the only parties with the expertise to produce the required application are the private providers. In addition, the NOFA required an explicit commitment to a 20% match which neither the members nor TJPDC could provide.

At the same time, it also was recognized that there would be multiple providers who would want to apply and that those providers would have varying abilities to provide broadband service in the region. As a result, it was agreed that the best strategy the region could pursue would be to identify the most capable provider through a Request for Proposals process, and then to work with that provider to prepare an application based on a public-private partnership agreement. It further was agreed that it was not possible to meet the August deadline for the first round and that the group would work toward an application for the second round of funding. Finally it also was agreed that TJPDC would take the lead in preparing and releasing the Request for Proposals/Qualifications. The RFP was reviewed by the Commission at the September meeting. Through the course of the process TJPDC staff has been working with a technical committee made up of the following representatives of the IT departments of the five member counties:

Albemarle - Michael Culp, IT Director
Fluvanna - Manuel Rodriguez, IT Director
Greene - Dale Herring, IT Director (Schools/County)

Louisa - Bob Hardy, IT Director
Nelson - Andrew Crane, Information Systems Specialist

Issues: Two responses were received to the RFP. One was from Nelson Cable, which supplies cable TV and wired broadband internet in areas of Nelson County and adjoining areas of Albemarle County, such as Scottsville and Greenwood. That proposal was reviewed by members of the regional broadband technical committee and determined to be non-responsive to the requirements.

A second response was received from DigitalBridge Communications. DigitalBridge is headquartered in Ashburn, Virginia, and is a provider of wireless broadband service in 15 underserved and rural communities across the country, including Appomattox County, Virginia. The wireless technology that DigitalBridge proposes for the region is WiMAX wireless, a technology which has not previously been deployed in the region. WiMAX is different from previous wireless technologies because it is not limited to line of sight, and is not hampered by foliage or weather. WiMAX serves a much broader area (up to 75 square miles per base unit) than Wi-Fi at speeds which are the same or faster than DSL. Users would be able to access the internet wirelessly anywhere within the region in two different ways: 1) Homes or businesses would receive (at no cost) a small antenna that would connect to a standard modem or router; 2) Laptop users would receive a USB card/antenna combination that would allow the user to roam anywhere within the region and receive service. Expected cost would be \$25 to \$35 per month per household or business. Coverage for the entire region would require between 25 and 50 base units which would be mounted on towers. As the towers are the most expensive component of the system, DigitalBridge is proposing to use either privately or publically-owned existing towers. Signals would be relayed from the towers to a few central hub locations via microwave and then from there to the DigitalBridge Network Operation Center in Ashburn, Virginia, via fiber optic trunk line.

Under the proposal, DigitalBridge would be the provider, would own and operate the network, and would be responsible for service availability. In each county, DigitalBridge would contract with a local firm to market and provide front line customer support. In Nelson County and the aforementioned areas of Albemarle, that local firm would be Nelson Cable (due to a pre-existing relationship with DigitalBridge). The local representatives have not yet been identified in other areas of the region.

Two meetings have been held by members of our technical committee with representatives of DigitalBridge. Based on the review of the proposal and the discussions that took place at those meetings, the members of our technical committee have unanimously recommended DigitalBridge and identified the following strengths in the DigitalBridge proposal:

- 1) The technology, although new in this area, is proven and has demonstrated reliability in all types of environments. DigitalBridge has documented end-user availability in excess of 99% in Appomattox County. Each tower is equipped with multiple base units for redundancy and has 12 hour battery backups.

- 2) The DigitalBridge WiMAX technology is also simple to deploy. DigitalBridge estimates that full deployment will take place within 6 to 12 months of acquisition of tower sites.
- 3) In addition, wireless WiMAX is much more “future-proof” than wired technologies. Additional future system capabilities can be added by software upgrades or at most, by exchanging the base units on the towers. The standards setting group for wireless technology anticipates that WiMAX infrastructure deployed today will, with modest network improvements, be capable of exceeding speeds of 12 Mbps (compared with 2 Mbps today) and system capacity will be increased fourfold without stranding any capital investment.

Based on the recommendation of the members of the technical committee, staff is now beginning the process of working with DigitalBridge to develop the materials for an application for ARRA Broadband Infrastructure funding. DigitalBridge will contract with a survey research firm to survey households throughout the region to identify and map unserved and underserved areas. Following review and input from the technical committee, DigitalBridge will identify existing towers that can be used to provide service and enter into agreements for tower space. DigitalBridge will develop all the required engineering plans, costs and financial plans for the final application.

At the same time, TJPDC staff will be working with members of the technical committee to identify community anchor institutions, primarily schools, libraries and perhaps public safety agencies, which may want to participate in the project. In return for their support for the application, Digital Bridge has indicated these organizations will receive free internet service. TJPDC staff also will be seeking the support of each of the five county Boards of Supervisors.

At this point we are expecting that the Notice of Funding Availability (NOFA) for the second round of ARRA Broadband Infrastructure funding will be released at the end of December, with applications due about the end of February. This is a great deal later than was originally announced; however, the process for the first round of grant applications has been much slower than expected and has impacted the schedule for round two.

Staff will keep the Commissioners informed on the progress of the Broadband Initiative.