

Executive Summary of Project for BIP and BTOP:

8. Infrastructure Projects Executive Summary

Area/Demographics

Columbus County, North Carolina covers 937 square miles of the mid-southeast of the state, bordering on South Carolina. There is an average of 58 persons per square mile. There are 866 businesses located in the county. The main industry of this area for many years was tobacco, although almost all that industry has dwindled. The county has 21,308 households, with 19.5% of them below the poverty level. Of the 54,749 county residents, there are 13,297 below age 18, with 69% of the children eligible for the federal lunch program.

This project seeks to address the 14,847 rural residents living outside the three small towns located in the county. This encompasses 5,647 households. There are 173 businesses in and around the small towns/cities that do not have access to stable broadband. The primary objectives are to offer broadband services to households with children in school, to offer the county school system network redundancy that is very cost effective, and to get robust Internet service to those who have no access or cost prohibitive access to a cellular carrier.

Opportunities

According to data that we have gathered, this County is 70% underserved for fixed broadband access. Our primary data source was Connect North Carolina (<http://www.connectnorthcarolina.org/>).

Connect North Carolinas' sole purpose is to create detailed maps of broadband coverage in order to accurately pinpoint remaining gaps in broadband availability in North Carolina. Dial-up Internet service is the only option for the majority of households. The only broadband available in our proposed service area is Verizon Mobile Wireless. There have been a large number of complaints about the pricing of Verizon Services, as well as complaints about reliability and speed. The advertised rates are stated as variable between 600 Kbps to 1.4 Mbps download. It is the goal of AireMedia to design, install and operate a fixed-wireless system that will allow us to offer broadband service to the most densely populated unserved and underserved areas Columbus County.

AireMedia has been talking with the Economic Development Department of Columbus County and the cities of Chadbourn, Tabor City and Whiteville about potential projects, but due to time constraints of the deadline for this application, there was not enough time to get an official endorsement from the County. We will receive an official endorsement for our project at the next county meeting. At this time there have been positive and very welcome discussions about the service that will be expanded on in the future with rounds two and three of funding. There are City Council meetings scheduled for later in the month to discuss the areas' needs and solutions, including, but not limited to, Public Safety and Emergency Management. As mentioned above, Verizon Mobile is the only available solution and the combination of intermittent service, low data rates, and the advertised pricing of \$15 per 24 hours, \$40 per month for 250MB or \$60 per month for 5 GB does not make for an attractive proposition to the local municipalities.

There have also been initial discussions with the Columbus County school district about creating a redundant transport layer for interconnectivity of each of the county schools. They are interested in pursuing discussions on this topic.

We are also entering into discussions with the Siouan Indian Tribal Council, as their current Community and Tribal centers have no access to broadband.

Proposed System Overview

In order to meet the broadband needs of these Columbus County communities, AireMedia has designed a terrestrial based fixed wireless WiMAX system based on the Redline Communications RedMAX UX platform. This network is being designed not only to service the current broadband needs but for the future ability to add a mobility layer.

The initial aggregate bandwidth will be 100+ Mbps and can be upgraded to 200+ Mbps, without new equipment. The WiMAX layer will support VOIP and data. The Backhaul layer will support speeds greater than 100 Mbps per link. The backhaul layer is redundant so that the network can maintain operation during an outage or during system maintenance.

Qualifications

AireMedia has an existing network, Operations Center, network management, billing, customer care, and on-site support services currently in place. Each specific function has been outsourced to other companies owned by its members since its inception. The primary company providing support for AireMedia has been Millennium Computers. Millennium Computers provides operations, network management, support, and installations. Other services such as billing, collections, and customer service are handled by a company owned by [REDACTED], one of AireMedias' members.

Millennium Computers has been in business since 1996. Millennium Computers, which currently employs the COO and CTO of Airemedia, is a full service Information Technology company providing Outsourced IT Services, Managed Infrastructure services, hosted web and email services, server co-location, IP surveillance technology engineering and installations. Millennium has engineers with Microsoft, Motorola, SonicWall and Cisco certifications. They are also a Motorola certified dealer.

Implementations have included WiFi access points for hotel and condo complexes, including the largest condo projects in Myrtle Beach. Non-profit businesses, live feeds for TV station WPDE Newschannel 15, security systems and private network feeds for all the Ripley's tourist attractions in Myrtle Beach are just a few examples.

Tower work will be performed by Rapid Systems of Tampa, FL, and by ATG of Augusta, GA. We have had working relationships with these companies for four years, and have worked with them on many projects. We have been in communication with these companies, and they have agreed to provide the necessary resources for the successful completion of this project.

Additional technical support staff will be added as needed to support this project.

Proposed Services

AireMedia will offer four tiers of residential and business services to the community based on their needs and availability. The base residential service will be \$19.95 per month for 1.5 Mbps download/512 Kbps upload for homes with children in school; 2Mbps symmetric for 34.95; 5 Mbps symmetric up for 59.95 and 10 Mbps symmetric for 89.95. The same services will be offered to the business community at a slightly higher cost. Public Safety and Critical Community Institutions will be offered our services at residential pricing.

Non-Discrimination and Interconnect Policies

AireMedia has never discriminated in the application, programs, or devices used by customers, per the FCC's policies. The company operates an open network, and meets all reasonable interconnection requests.

Costs

The overall project cost is \$8,109,214.52

Subscribers

The number of projected subscribers for the project period of 3 years is:

Residential: 2,385

Business: 150

Institutions: 21

Jobs

The number of jobs created by this project will be 8 full time, as well as, 5,500+ man-hours of employment during construction of the project. First the permanent jobs: 8 full time jobs will be created in AireMedia. Second, the construction and installation jobs will be created among the local subcontractors that the Company uses to implement this project.