

FCC Rural Health Care Pilot Project - Florida Panhandle Health Care Network

Project Update, April 1, 2009

In November 2007, the Federal Communication Commission awarded \$9.6 million to the Big Bend Health and AHCA to build health care network in the Florida Panhandle, consisting of a gigabit fiber optical network connecting nine rural hospitals and a broadband wireless network connecting not-for-profit clinics in the rural counties of the Panhandle. This contract will allow the Big Bend Health to connect the nine hospitals to the Tallahassee Private Medical Area Network (pMAN). The total amount of the contract is apportioned over three years, at \$3.2 million per year. Unused funds are carried over from previous years, so in 2008-2009 the amount available is \$6.4 million. Another \$3.2 million is available to cover the period 2009-2012.

Specific objectives of the proposed project address connectivity, health care services and sustainability. The overall plan proposes to:

- 1) Build a dedicated optical fiber broadband network to connect health care facilities between Madison County and Bonifay County with urban hospitals in Tallahassee and in Pensacola.
- 2) Build a broadband wireless network to connect not-for-profit clinics in these counties with an encrypted wireless system that provides high speed broadband communications to these clinics.
- 3) Provide hospitals and clinics the opportunity of joining the Big Bend Health health information exchange.
- 4) Create high speed connectivity to specialists in Florida via a connection to the Florida LambdaRail.
- 5) Develop a funding formula for sustainability of services to eligible providers in rural counties and underserved areas.

The FCC Rural Health Care Pilot Project provides 85% of the funding required for the costs of constructing the health care network in the Florida Panhandle. The remaining 15% of construction costs must come from matching contributions. The project will distribute funds until June 2010, but funds can be used for the project until June 2012. The distribution of funds over the four years is shown in Table 1, with \$7.5 million available in 2008-2009 for construction of the network and \$3.8 million available in 2009-2012.

Table 1. Total Funds Committed to the Big Bend Health for the RHCPP

Construction Years	85% FCC Funding	15% Funds	Matching	Total Construction Funds
FY 2008-2009	\$6,400,000	\$1,129,412		\$7,529,412
FY2009-2012	\$3,200,000	\$564,706		\$3,764,706
Total	\$9,600,000	\$1,694,118		\$11,294,118

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In 2009, the Big Bend Health will construct gigabit fiber facilities from Florida LambdaRail interface points, to a constructed Point of Presence (POP) in eight counties, and then run broadband last mile connections to nine rural hospitals and two clinics in the project. The nine hospitals and Veteran's Affairs clinic in year one construction plan include:

- Calhoun-Liberty Hospital, Blountstown, Calhoun County
- George Weems Memorial Hospital, Apalachicola, Franklin County
- Tallahassee Memorial Family Medicine Quincy, Quincy, Gadsden County
- Sacred Heart Hospital, Port St Joe, Gulf County
- Doctor's Memorial Hospital, Bonifay, Holmes County
- Campbellton-Graceville Hospital, Graceville, Jackson County
- Jackson Hospital, Marianna, Jackson County
- Marianna Veterans Clinic, Jackson County
- Madison County Memorial Hospital, Madison, Madison County
- Doctor's Memorial, Perry, Taylor County
- Northwest Florida Community Hospital Emergency Department, Washington County

The project then proposes to connect the rural hospitals to urban hospitals in Tallahassee and Pensacola. If there is enough funding, fiber may also be run into Gadsden and Jefferson Counties to connect the Tallahassee Memorial Healthcare Family clinics in Quincy and Monticello. These clinics could also be reached by wireless broadband, but the existence of gigabit fiber in the counties could be instrumental in supporting economic development, which should be weighed carefully against the cost of construction. The hospitals connected include:

- Tallahassee Memorial Hospital, Tallahassee, Leon County
- Sacred Heart Hospital, Pensacola, Escambia County
- Baptist Hospital, Pensacola, Escambia County

The pilot project plans to utilize an existing optical fiber network controlled by the Florida LambdaRail, LLC, as its broadband backbone to connect the facilities to the Big Bend Health. The Florida Lambda Rail runs throughout Florida and parallels Interstate 10 and State Route 20 in North Florida, with the capacity for up to 32 separate networks running at ten gigabits per second. The Florida LambdaRail was created to facilitate advanced research, education, and economic development activities in the State of Florida, utilizing next generation network technologies, protocols, and services.

Florida Lambda Rail Connectivity



FCC Rural Health Care Pilot Project - Florida Panhandle Health Care Network

Construction of the fiber network will be bid to a local Florida firm, preferably in the Panhandle region. Optical fiber will be strung along utility pole routes from the Florida LambdaRail amplifier sites along Interstate 10 and State Route 20 to a point of presence in the local community close to the hospital. Ideally the point of presence would be located on either city or county property. The project will seek a waiver from utility pole fees for the period of the pilot project as a means of reducing the cost of providing connections.

Proposed Optical Fiber Network



The point of presence in each community will be a small out building containing routing and switching equipment. It will serve as the termination point for the fiber connecting LambdaRail and an access point for connecting each hospital as well as providing broadband access for other information services. The point of presence in each community will become the hub of broadband communications for the medical community and for the businesses and residents who are the consumers of health care. Using the point of presence, none of the hospitals will have to make capital investments in new equipment or maintain the connections. Each hospital will be connected directly to the point of presence with fiber optic cable, which will replace whatever telecommunication connection is currently installed, with no break in service. The only difference in service will be that the hospital will have significantly greater bandwidth available for all communication needs.

Big Bend Health, will act as the Internet Service Provider, offering Voice Over IP service to replace the telephone services, providing secure messaging and secure broadband Virtual Private Network access through the Florida LambdaRail. Hospitals will be able to connect to the Tallahassee-based Private Medical Area Network (pMAN) and Tallahassee Memorial Hospital and to Baptist and Sacred Heart Hospitals in Pensacola. Access to the Florida Panhandle Health Care Network could significantly improve the turn-around time for rural hospitals in transmitting x-rays, magnetic resonance imaging (MRI), computerized axial tomography scans (CAT scans), or any other large digital image file to radiologists or other specialists in Tallahassee and Pensacola. With the improvement in turn-around time to have these images read, the rural hospitals may be able to increase the volume of tests they run, thus increasing their revenue streams for these services.

The Florida Panhandle Health Care Network project proposes to connect all nine rural hospitals and two clinics with hospitals in Tallahassee and Pensacola during 2009. This rural infrastructure grant will be used for this phase of the network construction, as matching funds for the \$6.4 million that the FCC will invest in the construction.

The construction plan for 2010 is to implement a broadband wireless network in each of the rural counties. This wireless network will allow health care providers and clinics to connect to the Florida Panhandle Health Care Network. In addition, access to the wireless network will be provided to businesses and homes in each community, which will contribute to the economic development of each county. The last two years of FCC Rural Health Care Pilot Project funding will go to operation and maintenance of the network, and toward building a sustainable business operation.

FCC Rural Health Care Pilot Project - Florida Panhandle Health Care Network

The proposed annual timeline is shown below:

Rural Health Care Pilot Construction Timeline

Construction Years	Construction Timeline	Who Benefits
2009	Conduct network design, construct optical fiber to point of presence in 8 rural counties and 2 urban counties, connect hospitals, deliver Big Bend RHIO services	Not-for-profit Hospitals
2009-2010	Wireless network construction, lay optical fiber to other rural counties if funding permits, deliver Big Bend RHIO services, provide commercial Internet service	Not-for-profit clinics, doctors offices, city and county offices
2010-2012	Broadband network complete, Big Bend RHIO services delivered to all providers, e-commerce supported	Health care providers, city and county offices, small businesses and domestic users

Chronology of the Rural Health Care Pilot Project

The original proposal to the FCC was submitted in May 2007 by a consortium of stakeholders, led by the Agency for Health Care Administration and the Big Bend Health. The proposal was accepted and a contract granted by the FCC in November 2007. Initial orientation to the pilot project was provided by staff of the Universal Service Administration Corporation (USAC) in February 2008. Fund raising efforts for the project began in March 2008 and have continued to the present.

Big Bend Health has been active in seeking out donations for the 15% match in the project. Big Bend Health is a certified participant in the Community Contribution Tax Credit Program. For-profit businesses that donate time, dollars, equipment or products to the Big Bend Health qualify for tax credits. Big Bend Health is also a certified participant in the Enterprise Zone Community Contribution Tax Credit program. Most of the counties where infrastructure will be improved have Enterprise Zones, so this program will assist with recouping some of the administrative costs of the grant. Any business in Florida can take a tax credit of up to 50% of the value of donations up to \$200,000 to an approved community development project. Credit can be taken against the FL Corporate Income Tax, Insurance Premium Tax or the Sales and Use Tax. Vendors who buy poles, cable, fiber and other supplies to install new poles or retrofit existing infrastructure can apply for a one time Enterprise Zone Building Materials Sales Tax Refund. This will give them a refund of 6% state sales tax up to \$10,000 and a refund on building materials purchased for new construction or renovation.

USAC requires each pilot project to submit a sustainability plan to demonstrate long term viability of the project. The sustainability plan is expected to demonstrate how future revenue streams will replace the FCC 85% match funding and then continue to support the health care network for ten years beyond the funding period.

Sustainability refers to the long term operation, maintenance and improvement of an organization. It is the outcome of specific strategies employed to utilize all of the organization's resources to create operational and financial stability and to meet the challenges of change.

FCC Rural Health Care Pilot Project - Florida Panhandle Health Care Network

Financial stability implies that the cost of operations is met by the revenue taken in, plus a strategic, extra amount of capital required for development or investment purposes.

The sustainability goal of the Florida Panhandle Health Care Network is to generate revenue streams that are sufficient to cover expenses for the network at year six of the project and for nine years following. The sustainability plan proposes developing revenue streams to cover four areas of cost in the network: 1) connectivity, 2) network maintenance and upgrading of equipment, 3) network management and 4) provision of health care services.

Revenue could be generated from four sources: 1) connectivity charges, 2) subscription fees, 3) transaction fees and 4) health care services fees. Connectivity fees will be charged for the basic provision of broadband services. These services could include the broadband connection to the health care network, broadband connection to the Internet, voice over IP service and videoconferencing. A basic fee for connectivity will be charged to each hospital, and additional fees will be added as other services are requested. Hospitals will be expected to pay 15% of the recurring costs for connectivity during the pilot project period.

Subscription fees for connection to the Big Bend Health Regional Health Information Network (Big Bend RHIN) Services will be charged to each hospital and clinic connected to the network. This fee will cover the cost of providing health information exchange services to each facility, as well as provider outreach and an EMR light for facilities. In addition to the Big Bend RHIN services, additional services will be offered on a transactional basis. By providing connectivity to radiologists at urban hospitals or radiology labs, the broadband network would facilitate the movement of large image files between rural and urban settings, with each transaction charged a fee for the service.

The Big Bend RHIN could also offer health care services that are carried over the broadband network to enable hospitals and clinics to take advantage of value-added services that could lower their operating costs. Telehealth services would allow videoconferencing with urban specialists so that patients do not have to travel from rural to urban areas, and health care facilities could provide better health care services. Or continuing education services could be offered for physicians in rural facilities to allow physicians to remain in their clinics and complete required educational credits.

By providing a mix of health care services, broadband connectivity and health information exchange services, the sustainability plan proposes to build a network that will sustain itself, and grow into a new maturity with the development of new network-based applications and services. The Agency for Health Care Administration is taking the lead in drafting the sustainability plan, which should be complete and submitted to USAC for review by February 1, 2009.

Once the sustainability plan is completed, the first RFP must be submitted to USAC for broadband backbone services for national connector to the National LambdaRail. The original proposal specified the Florida LambdaRail as the carrier of choice, but USAC rules require all services to be bid publicly for 28 days on their website. This RFP will require an evaluation team made up of impartial stakeholders to select the winning proposal. The RFP for a broadband connector to the National LambdaRail should be submitted by February 1, 2009 to USAC.

A second RFP should be submitted soon after for a Design Study to determine the most suitable fiber routes and location for the point of presence building. This study will also determine the necessary permits (and their controlling authority), switching equipment, network security equipment, rights of way issues, estimate the amount of fiber optic and other construction materials required and predict the cost of all materials for the project. The construction RFP will be based directly on the outcome of this study. This RFP will again require

FCC Rural Health Care Pilot Project - Florida Panhandle Health Care Network

an evaluation team made up of impartial stakeholders. The RFP for a Design Study should be submitted on February 15, 2009 to USAC.

The final Request for Proposal covered by this grant is the RFP for construction of the fiber network and related infrastructure. This can only be written after the Design Study is completed and submitted. A probable earliest date for the completed Design Study would be May 1, 2009. If the RFP for Construction were submitted a month later, on June 1, 2009, construction could conceivably begin by July 1, 2009.

It should be noted that under the USAC rules, the vendor selected for any RFP need not be the cheapest bid. Consideration can be given to the efficiency, quality and overall feasibility of the vendor for the job to be done, and bid proposals can be evaluated according to these guidelines.

Chronology of Optical Fiber Construction Phase

The first step will be to begin the engineering phase of construction to produce the necessary plans/drawings to obtain necessary permits and direct the construction crews. Preparation and production of the plans will likely be done in phases to accelerate beginning the physical construction.

The actual phases and their specific schedules will be determined once the design study is completed. One of the early priorities of the design study will be to identify long lead time issues so they don't become construction barriers. In order to expedite construction several items that are not determined by the design study can begin during that phase. For example, while specific routes may not yet be identified required pole attachment agreements that must be secured are not route specific. Similar items that are identified will be addressed as appropriate. In consideration of weather delays and unplanned delays the initial construction should take 12-14 months. This can be significantly impacted by active local stakeholder support of the project.