BROADBANDUSA
CONNECTING AMERICA'S COMMUNITIES

Louisiana Broadband Alliance

Broadband Technology Opportunities Program Infrastructure Project

BTOP Infrastructure Project Highlights

- March, 2010 – Board of Regents, on behalf of the Louisiana Broadband Alliance, was awarded $80.5 million in federal funds to expand and extend the LONI fiber optic network

- The broad purposes of the grant are to:
  - extend broadband access to unserved and underserved areas of the state
  - provide broadband access to community anchor institutions (e.g., schools, libraries, medical facilities)
  - stimulate demand for broadband, economic growth, and job creation

Alliance Members

- Board of Regents (BOR)
- Department of Education (DOE)
- Louisiana Educational Television Authority (LETA)
- Department Of Health And Hospitals (DHH)
- LSU Agricultural Center's Delta Rural Development Center (DRDC)
- Louisiana Geographic Information Center (LAGIC)

Targets

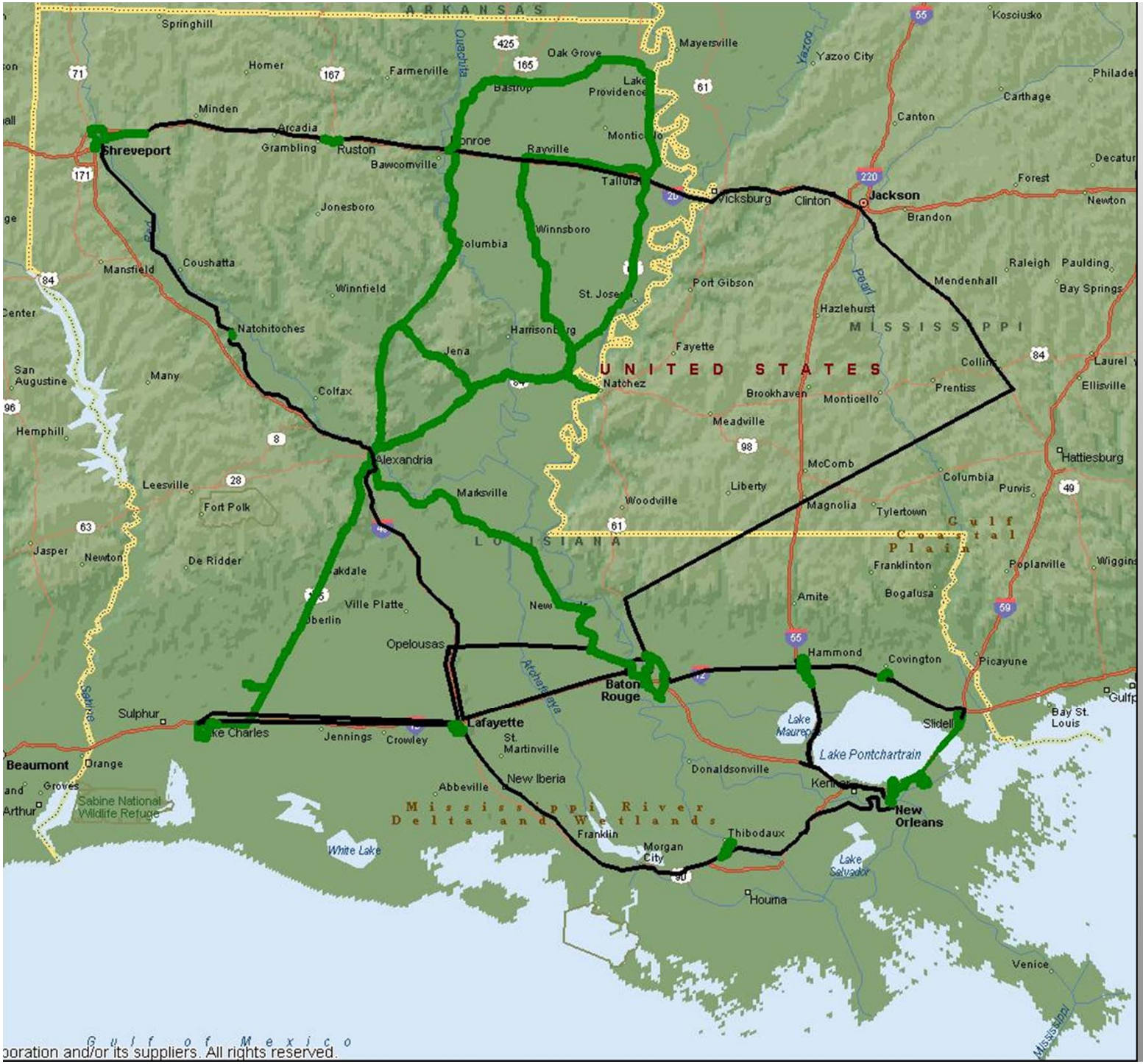
- 80 Community Anchor Institution Systems (i.e. K-12 School District, Parish Library System and FCC Rural Health Care Pilot entities)
- Two 4-year Universities
- Three federally-recognized American Indian Tribes
- 21 Parishes of which 12 are considered impoverished

Potential Beneficiaries

- 100,000 households served through private telecom provider connections to the network
- 15,000 businesses served through private telecom provider connections to the network

Technical

- 910 miles of “middle-mile” dark fiber
- 144-strand fiber cable
- 38 new interconnect points
- 2.5 years for construction
- IP over Optical delivery
- Last-mile connectivity and services provided by private telecom providers



Map Key	
—	Existing LONI Network
—	Proposed Network

LONI
- •1,651 Fiber Miles
- •(32) 10,000Mbps Links
- •Three complete fiber rings
- •(15) Interconnection points
- •100% fiber protection
- •100% card protection
- •100% device protection
- •(63) Cisco 15454
- •(51) Cisco 6500
- •24x7x365 Network Operations
- •All Interconnect sites have UPS and Generator with either natural gas or diesel with supply contracts

Proposed
- •910 Fiber Miles
- •(24) 10,000Mbps Links
- •(724) 1,000Mbps Links
- •Meshed Rings
- •(38) Interconnection points
- •100% fiber protection
- •100% card protection
- •100% device protection
- •(71) Cisco 15454
- •(17) Cisco 6500
- •24x7x365 Network Operations
- •All Interconnect sites have UPS and Generator with either natural gas or diesel with supply

Federal Budget Overview

Budget	Federal Funding Request
Network & Access Equipment (switching, routing, transport, access)	12,697,276
Outside Plant (cables, conduits, ducts, poles, towers, repeaters, etc.)	58,422,000
Buildings and Land – (new construction, improvements, renovations, lease)	4,5000,000
Customer Premise Equipment (modems, set-top boxes, inside wiring, etc.)	0
Billing and Operational Support Systems (IT systems, software, etc.)	977,139
Operating Equipment (vehicles, office equipment, other)	0
Engineering/Professional Services (engineering design, project management, consulting, etc.)	3,900,000
Testing (network elements, IT system elements, user devices, test generators, lab furnishings, servers/computers, etc.)	100,000
Site Preparation	0
Other	0
TOTAL BROADBAND SYSTEM:	**$80,596,415**

Objectives

The project is to provide enhanced broadband capacity to:

1. rural areas of Louisiana at cost-effective rates
2. Indian tribes located in specific areas of Louisiana
3. complete and fill-in gaps in the existing LONI network

Objectives

- As stipulated in the BTOP application, the Broadband Alliance is “open to each and every last-mile provider that can serve the proposed service area and every reasonable attempt will be made to negotiate with all interested parties for the ability to interconnect at every provider building for the middle-mile fiber route/span operations, and at every fiber splice point on the route/span.”

Strategic Alignments with BOR

- Expanding Distance Learning, Mentoring and Support for Students, Teachers and Leaders
- Expanding Course Offerings through Virtual Schools
- Promote Dual Enrollment Agreements with Public School Districts

Strategic Alignments with DOE

- Expanding Distance Learning, Mentoring and Support for Students, Teachers and Leaders
- Expanding Course Offerings through Virtual Schools
- Access to Rigorous Online Assessments & Decision Tools
- Implementation of Longitudinal Data Systems
- Support and Creation of 21st Century Technology-based School Infrastructure
- Effective Online Resources & Tools for Students, Teachers and Leaders (during and after school hours)
- Adoption of Electronic Textbooks

Status

- GEC is our engineering, environmental assessment and construction management firm
- Environmental Assessment due to D.C. on 12/14/10
- Design due on 3/31/10
- Construction advertise by 4/29/10
- Construction starts by 9/1/10

GIS Implications

- How do we exchange data with GEC?
- How do we retain data from GEC?
- How do we come the data repository for collected information?
- How do we track the progress for existing and future stakeholders?
- How do we geospatially represent the manual labor effort?
- How do we geospatially represent the fiber infrastructure?
- How do we use the geospatial data to insure sustainability of the infrastructure?

Questions

Lonnie Leger
Director of Networking
LONI
lonnie@lsu.edu
225-578-8391