**Organization:** MCNC  
**Project Name:** Building a Sustainable Middle Mile Network for Underserved Rural North Carolina  
**Project Type:** Infrastructure  
**State(s):** North Carolina  
**Federal Award:** $28,225,520

### ABOUT THE PROJECT

Building a Sustainable Middle-Mile Network for Underserved Rural North Carolina proposes to build a 494-mile, middle-mile broadband network serving almost one half the population of North Carolina in 37 counties. The new fiber network proposes to increase the existing bandwidth by 10 to 20 times in underserved areas and will connect to 685 miles of existing infrastructure in the urbanized central region of the state, expanding the reach of the North Carolina Research and Education Network (NCREN). Currently, NCREN provides backbone and ISP services to community anchor institutions including the entire public University of North Carolina system, all public K-12 schools in the state, a majority of the independent colleges and universities and 20 of the 58 institutions in the North Carolina Community College System. This project will both provide better and more reliable connections for rural education and community support organizations already on NCREN, and create better connectivity for anchor institutions that are not part of NCREN, such as rural libraries, not-for-profit hospitals, and county-operated free health-care clinics. This would allow for expanded use of distance learning, telehealth services, electronic medical-records sharing, and smart-grid technology.

The Building a Sustainable Middle Mile Network for Underserved Rural North Carolina project also proposes to:

- Connect all 58 community colleges, the remaining independent colleges, the State’s charter schools, 50 free healthcare clinics, 179 county health agencies and hospitals, 181 libraries and their public computer centers, and the three largest state museums.
- The open design of the proposed expansion enables all service providers to directly connect to the network to make broadband more easily available to approximately 1.8 million households, 139,000 businesses, and more than 2,400 anchor institutions with connection speeds from 10Mbps to 10Gbps.
- Create higher capacity public middle-mile connectivity for libraries, medical and public health service providers.
- Include one middle-mile operator, FRC, which has letters of intent from last-mile service providers to expand service into unserved and underserved areas.

### ORGANIZATION’S HISTORY

MCNC, established in 1980 as a catalyst for technology-based economic development, is an independent not-for-profit broadband provider that has operated the North Carolina Research and Education Network operations center and business support systems for more than 25 years. The network provides backbone and ISP services to community anchor institutions, including almost all public and private education institutions in the state. MCNC has experience designing and building middle-mile networks with public and private partners experienced in design, build, and permits that are ready to assist in the project as soon as funds are awarded. North Carolina mounted a coordinated effort with Governor Beverly Perdue, the state’s Office of Economic Recovery and Investment, North Carolina’s chief information officer, the Golden LEAF Foundation, and the state’s community anchor institutions including schools, health care, universities, and libraries, to strengthen MCNC’s proposal.

### PROJECT PARTNERS

- Balsam West  
- ERC Broadband  
- Energy United  
- North Carolina Department of Transportation  
- North Carolina Health Information Technology Strategic Planning Task Force  
- North Carolina Research and Education Network  
- The State Library of North Carolina  
- University of North Carolina system