



North Carolina's Community Anchor Network

Introducing MCNC and NCREN

MCNC is a broadband non-profit organization that operates the North Carolina Research and Education Network. This world-class, 2,600-mile fiber network and MCNC's operational expertise supports high-speed connectivity for education, research, health care, public safety, and other community anchor institutions throughout North Carolina.

NCREN gives North Carolina a real competitive advantage

As the owner and operator of NCREN, MCNC provides high-speed Internet and related services so a student anywhere in North Carolina can be online while at school or at a library, so researchers and health care professionals can find that next great innovation or medical discovery, and so local economies can thrive with an educated and connected workforce. And, this is all performed daily in a cost-conscious manner while delivering a breakthrough customer experience using the best networking technologies available today.

Investing into North Carolina's highway of innovation

MCNC has invested nearly \$35 million over the last decade in the upkeep of NCREN. In August 2013, MCNC completed a \$144 million expansion of the network. This expansion has allowed MCNC to customize network services and applications while cost-effectively meeting the bandwidth needs of member institutions now and for the foreseeable future. MCNC also works with private-sector companies to help bring enhanced, affordable, and reliable broadband connectivity to consumers and businesses in areas of North Carolina previously unreachable. By successfully developing public/private partnerships to support those growth markets for small and rural service providers, consumers should see more competition, lower costs, and better services.

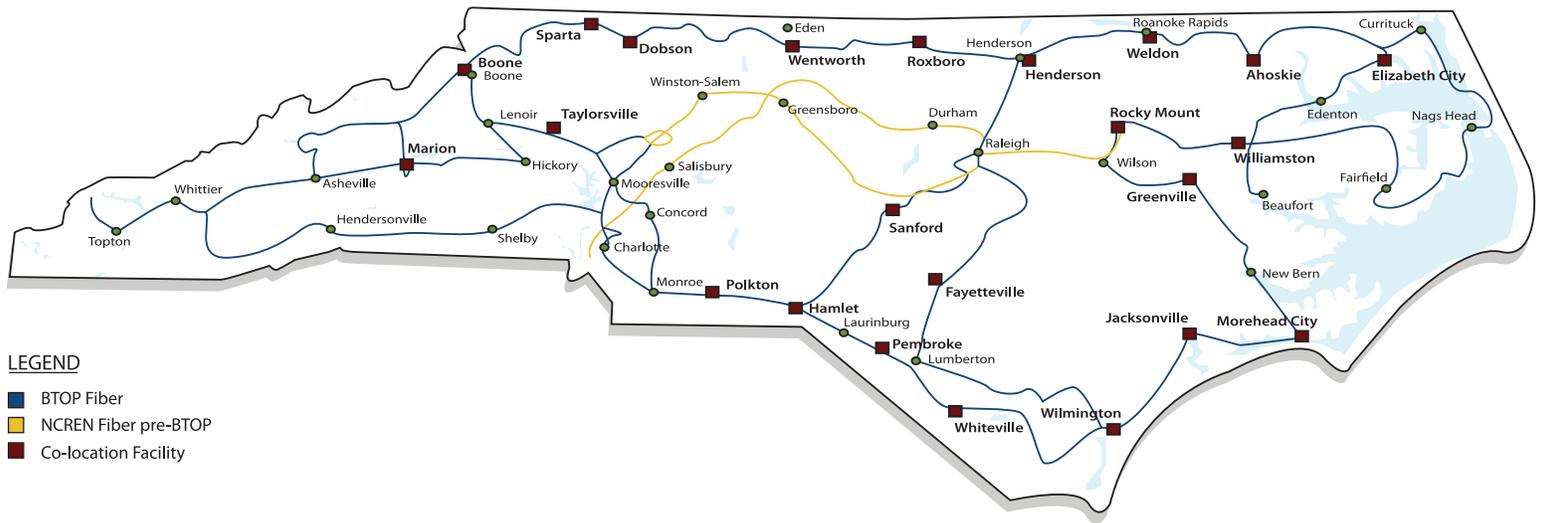
Exceeding customer needs while keeping costs down

MCNC leverages experts and experience to run a reliable network. Customers can contact the Network Operations Center in Research Triangle Park for any need 24x7x365. The MCNC website also has a knowledgebase and other valuable information available online. Client Network Engineers are available for support, offering training and professional development opportunities several times a year. MCNC Systems Operations supports and manages internal infrastructure and a number of external products as well as a range of hosting, co-location and data protection services located in MCNC's data centers. NCREN is a platform for delivering video technologies as well as customizable, cloud-based services for critical applications. MCNC centrally hosts these services and applications so customers do not have to purchase each service separately. MCNC has successfully developed a model of aggregating bandwidth and services to keep costs stable for NCREN customers on one reliable backbone network.

North Carolina's ISP for education

NCREN unites all layers of education in the state for greater opportunity and administrative efficiency. MCNC supports broadband connectivity for all 115 K-12 public school districts in North Carolina, more than 100 charter schools, and a growing number of K-12 private schools. Since 2010, MCNC has worked with the North Carolina Community College System and the N.C. Department of Information Technology to integrate a full range of IP-based technologies to serve all 58 campuses. NCREN also is the high-speed foundation for more than 50 universities and colleges in North Carolina, and each is increasingly integrating broadband-dependent technologies into curriculum and administration for students, faculty, and staff both on and off campus.

North Carolina Research and Education Network



LEGEND
■ BTOP Fiber
■ NCREN Fiber pre-BTOP
■ Co-location Facility

Co-location facilities are located in Ahsokie, Boone, Dobson, Elizabeth City, Fayetteville, Greenville, Hamlet, Henderson, Jacksonville, Marion, Morehead City, Pembroke, Polkton, Rocky Mount, Roxboro, Sanford, Sparta, Taylorsville, Weldon, Wentworth, Whiteville, Williamston, and Wilmington. Handholes/interconnection points also are available.

Bandwidth for the world's best idea creators

MCNC provides a level of connectivity that gives great minds the ability to do amazing things. Whether researchers need high-performance computing, cyber tools for analysis and collaboration, data management solutions or all of the above, none of it would be possible without a robust connection to NCREN. MCNC has dedicated fiber for researchers who want to build and test foundational equipment for next-generation Internet in a real-world environment. MCNC's history of capacity and innovation give researchers in North Carolina a real competitive advantage.

Transforming health care in North Carolina

Many in the medical community envision North Carolina as a leader in the adoption of electronic medical records, telemedicine services, and health information exchanges. The North Carolina Telehealth Network provides the critical broadband infrastructure health care providers need to effectively deliver their electronic services. This dedicated network for public and non-profit health care leverages the architectures on NCREN and the N.C. Department of Information Technology to utilize leading-edge broadband technologies and network services that scale to connect customer locations to a resilient fiber backbone.

Privacy and security are top priorities

MCNC is developing a new security portfolio to help better protect customers from the damaging effects of cyberattacks. The enhanced capabilities will offer more customer protections within standard network service offerings. MCNC also is building a number of internal solutions to strengthen the organization's overall security posture. Through a formalized risk management program, these efforts will strengthen vulnerability management with stronger authentication, end-point protection, security monitoring, data encryption, security awareness, and education.

Connecting valuable resources in North Carolina

MCNC provides advanced broadband technologies to connect many valuable assets throughout the state such as public safety agencies and important destinations such as museums and aquariums. Public libraries also leverage NCREN to help local communities in multiple ways. The possibilities of this network are limitless, and MCNC remains committed to Connecting North Carolina's Future Today.

**All data and information provided herein was recorded as of January 2016.*

Technical Support & Contacts

The Network Operations Center can be reached at 877.GO.NCREN or 919.248.1111 or trouble@ncrcn.net.

Contact us today by calling 919.248.1900 visit www.mcnc.org