



MCNC[®]
Connecting North Carolina's Future Today

Network Operations Center

Introducing MCNC and NCREN

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

State-of-the-art network management

MCNC's Network Operations Center (NOC) is the first point of technical contact for services provided over NCREN, which is monitored 24 hours a day, 7 days a week, 365 days a year. MCNC's NOC analysts along with network engineers perform the many technical functions required to maintain and manage the optical (Layer 1), Ethernet (Layer 2), and routing (Layer 3) components of the network. Network engineers and the NOC staff diagnose and resolve network problems, install and upgrade network components, decommission aging equipment or hardware, support circuit installations, perform service and network backbone upgrades, and coordinate and communicate third party maintenance and any other repair activities.

Ready to keep you up and running

From basic broadband to advanced services for experimental networks, MCNC's engineers are instrumental in connecting millions of North Carolinians with reliable and advanced technology solutions and are uniquely positioned to identify and resolve networking issues and challenges within the NCREN community. MCNC continuously improves processes and documentation while actively sharing technical knowledge and experiences within the user community. Interaction with MCNC engineers is encouraged. The NOC staff has nearly 100 years of combined technical experience and hold certifications from Cisco and Red Hat. MCNC strives to keep downtime to an absolute minimum by constantly monitoring more than 700 constituent endpoints for network outages (most times before they progress or occur), environmental controls, and network degradation. MCNC engineers also perform service installations.

Exceeding customer needs while reducing IT costs

Eliminating complex network operations through MCNC managed services can reduce cost pressures. NCREN customers can reduce operating expenses, accelerate time to revenue, and eliminate the investment and time it takes to grow operations skills to manage new technologies. NOC analysts work closely with other company departments to ensure the solutions and services offered are economically beneficial to the customer. For example, the Client Network Engineers (CNE) team is available for support, offering training and professional development opportunities for community college and K-12 customers several times a year. Also, MCNC Systems Operations (SysOps) 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 two data centers. MCNC has successfully developed a model of aggregating bandwidth and services to keep costs stable for NCREN customers on one reliable backbone network. MCNC's goal is to help keep costs down by doing the heavy-lifting for you and maintaining hardware, operating systems, or virtual machines at optimal levels.

Did You Know?

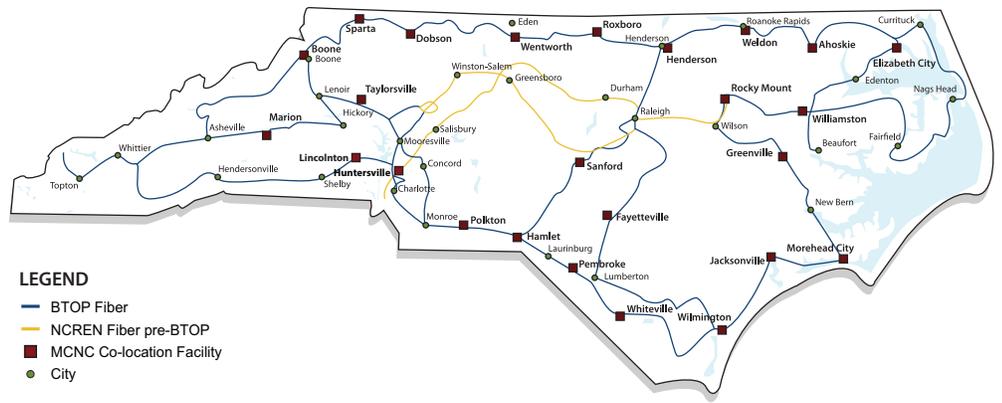
- ✓ MCNC Network Operations Center is staffed 24x7x365.
- ✓ More than 700 constituent endpoints are constantly monitored on NCREN.
- ✓ Environmental conditions for 25 MCNC-owned remote sites are monitored locally by the NOC.
- ✓ Network outages and service degradation often are recognized before being contacted by customers.
- ✓ MCNC's goal is to minimize downtime and meantime to repair any network-related issues.
- ✓ Analysts and senior engineers have more than 100 years of combined networking experience.

"The MCNC Network Operations Center is the foundation of NCREN and a vital component to delivering exemplary service to its customers. Whether we're replacing hardware, monitoring bandwidth or ensuring all network processes are running at optimal levels, you can have peace of mind that MCNC will exceed customer expectations."

Will Parker
Technical Manager
MCNC Network Operations Center

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

North Carolina Research and Education Network



Co-location facilities are located in Ahoskie, Boone, Dobson, Elizabeth City, Fayetteville, Greenville, Hamlet, Henderson, Huntersville, Jacksonville, Lincolnton, Marion, Morehead City, Pembroke, Polkton, Rocky Mount, Roxboro, Sanford, Sparta, Taylorsville, Weldon, Wentworth, Whiteville, Williamston, and Wilmington.

Real-time customer portal and ticketing system

The NOC staff at MCNC is able to identify network issues usually before they can impact business functions or productivity and seek to resolve problems remotely or by dispatching technicians to customer sites as needed. Transparency of our ticketing system and the online NCREN Community Portal provide great value so NCREN users can view their ticket status and/or resolution history in real-time and around-the-clock to continuously monitor their network's performance.

Data protection and security are top priorities

NCREN is operated in a secure environment, supported by modern data center monitoring tools and centralized, automated data protection services and backup systems. MCNC engineers work closely with your technical staff to ensure data integrity and any restores can be done in a timely manner. The collaboration among the NOC and MCNC's operational and security departments aids in design and implementation of a disaster recovery plan and provides secure off-site storage protection.

Fast, personalized customer service

MCNC takes a proactive approach to customer support and vendor management to provide the highest level of customer service and technical support. NCREN customers can contact the Network Operations Center 24x7x365. The MCNC website also has a knowledgebase and other valuable information available online. Customer service is a fundamental part of MCNC's technology solutions, and the MCNC NOC proactively provides NCREN users a beneficial way to reduce operating expenses while freeing up internal resources. MCNC remains committed to Connecting North Carolina's Future Today.

Network Operations Center (NOC) Support

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