

# Big brains and weird infrastructure: MCNC's innovation playbook bridges old IT and new IT to bring next IT to NC

North Carolina has a rich history of innovation: First in Flight, Pepsi, and Vicks VapoRub, just to name a few. These embodiments of modern life helped form the foundation of an innovative state actively committed to developing new ideas, pushing boundaries, and solving problems.

MCNC is also an important NC innovation – a relatively unknown story of a niche organization maturing to a cornerstone of technology advancement that benefits so many each day. MCNC also was one of the first organizations in the country to create a statewide non-profit Research and Education Network, or REN.

About 10.5 million people call North Carolina home, living and working in communities ranging from large metros to rural towns stretching from the Atlantic Ocean to the Appalachian Mountains. Despite many geographic and cost barriers, MCNC has been able to expand its network over the past 40 years to more than 4,000 miles in virtually all 100 counties of the state – with plans to add more soon. But, MCNC is and has always been more than just a network provider, and herein is where their innovation truly exists.

MCNC aims to make North Carolina the most connected state in the nation by making secure, high-speed Internet and technology services more accessible to everyone. It supports North Carolina's entire technology ecosystem of high-functioning Internet in order to successfully drive digital equity to



the unserved and underserved. those who might get left behind and/or are simply forgotten.

Quantum computing and networking, application development and integration, and modern data fit neatly into MCNC's current innovation model. MCNC Senior Director of Innovation Phil Emer regularly ponders how MCNC can dive deeper. He explains that connecting the components of a modern IT infrastructure requires fast, efficient and customizable networking, which also requires experienced engineering and the wisdom of knowing the art of the possible.

“This is operational innovation, and this is where MCNC thrives,” adds Emer. This approach is a key pillar to the organization's clear mission for North Carolina. That mission sees the important emerging work of tomorrow, with projects such as NC Share, BEAD grants, Internet

for All, Vital Cyber, Modern Data, A.I., Quantum, and more. This fall, MCNC will host its annual MCNC Community Day celebration with its event theme: A New Wave of Innovation.

While MCNC is a trusted partner in North Carolina and nationwide, there is still room to bolster relationships, expand connectivity, increase innovation, and improve systems. Innovation requires big thinking, guts, passion, and know-how. MCNC is good at this, and RENs across the country are good at this. Let's continue to be there for each other, be that unique option, and help our clients continue to do great things.

**MCNC** is a non-profit, client-focused technology organization. Founded in 1980, MCNC owns and operates NCREN, one of America's longest-running regional research and education networks. With 40 years of innovation, MCNC continues to provide high-performance services for education, research, libraries, health care, public safety, and other community anchor institutions throughout North Carolina. [www.mcnc.org](http://www.mcnc.org)