ABOUT THE NETWORK

MISSION

Provide a statewide, innovative, secure, reliable network, and technology solutions for education, healthcare, public safety, and government.

WHO WE ARE

A State government agency, that administers a state-of-the-art fiber optic network providing broadband and telecommunications services to authorized users.
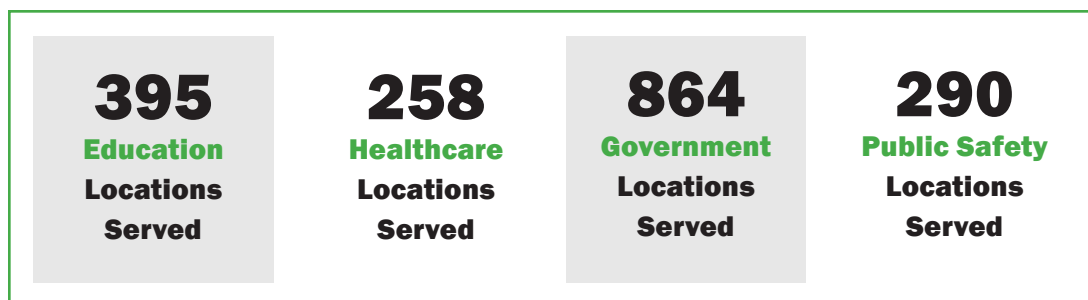
Our business offices are located on the State Capitol Complex in Des Moines, and our hub and Network Operations Center are located at the Iowa National Guard Joint Forces Headquarters (JFHQ) in Johnston.

SERVICES

- Internet
- Ethernet
- Security
  - DDoS Mitigation
  - Firewall
- Cloud Connect
- Voice
- Colocation
- Structured Cabling
- Consultation

AUTHORIZED USERS

The ICN is statutorily limited, by the Code of Iowa, Chapter 8D, in who is permitted to utilize the Network. ICN's authorized users include: K-12 schools, higher education, hospitals and clinics, public safety, state and federal government, National Guard armories, and libraries.

395	258	864	290
Education	**Healthcare**	**Government**	**Public Safety**
Locations Served	**Locations Served**	**Locations Served**	**Locations Served**

IOWA COMMUNICATIONS NETWORK

ABOUT THE NETWORK

NETWORK MILES

A Secure Network: Comprised of approximately 3,300 miles of state-owned fiber reaching each county with primarily leased connections, as required by law, from county points of presence to end user locations.

Owned Fiber   IIII Leased Fiber
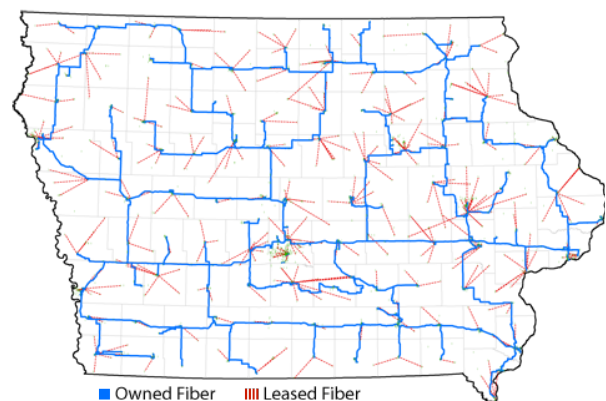
DEFINING THE NETWORK PARTS

Part I - ICN Owned

Involved the installation of a Network Operations Center in Johnston and the linking of Iowa's 3 Regents universities, 15 community colleges, Iowa Public Television, & the State Capitol Complex.

Part II - ICN Owned

Involved creating a point of presence in each of the remaining 84 Iowa counties by connecting to the 15 community colleges.

Part III - Mostly Leased

Involved expanding the Network to other authorized users within the counties, such as schools, libraries, & area education agencies.

A Vital Community Link

IOWA COMMUNICATIONS NETWORK

OUR EDUCATION COMMITMENT

LOCATIONS SERVED

348	**9**	**15**	**3**	**20**
Public & Private K-12 locations	Area Education Agencies 45 sites	Community Colleges 30 sites	Regent Institutions	Private Colleges

THE LANDSCAPE

- **Peering:** Partnering with the top 150 cloud content and large network providers.
- **Voice Services:** Includes managed voice, long distance, and toll-free.
- **Internet Use:** The need for greater bandwidth, hosted applications, and security services, which includes managed firewall and DDoS mitigation, has escalated.
  - 79% of Internet provided by the ICN is used by education.
- **Internet2 Connection:** ICN is Iowa's only authorized anchor giving exclusive access to Internet2 services and research facilities for our education users.
- **User Savings:** ICN's K-12 education users (167) received approximately $2.9M in USAC funding for data services in FY 2021.

E-RATE

ISU Receives Grant to Study Wireless Technology

ICN and the Iowa DOT are partnering with Iowa State University to study wireless technology. ISU received notification that they will lead a $16M research project on the use of wireless technology to provide Internet access in 3 counties.

Common Carrier Designation

ICN began participation in the Universal Service Fund (USF) program in FY 2001, as a common carrier.

Schools & libraries (E-rate) can access federal funding that subsidizes the costs of eligible telecommunications services.
- How are discounts received: Competitive bidding and award is based upon best value (primarily cost).

ICN's Common Carrier status is in part based on the autonomy of the Commission (ITTC) in the oversight of the Network.

OUR GOVERNMENT COMMITMENT

LOCATIONS SERVED

158
Dept. of Human Services locations

265
Dept. of Transportation locations

133
Judicial Branch locations

59
Workforce Development locations

231
Additional State, Federal, miscellaneous government locations

THE LANDSCAPE

- **10Gb Internet Connection:** ICN installed a new 10Gb Internet connection for the additional VPN bandwidth needed for government teleworkers to connect back to their network resources from remote locations.

- **Voice Mobility:** Application enables flexibility to support teleworking of State employees to appear as if they are sitting at their desk to serve Iowans.

- **Wireless Access:** During the 2021 Legislative session, our structured wiring team installed wireless access points throughout the State Capitol.

- **Colocation:** Providing government customers datacenter, space, power, and security.

- **Cloud Connect:** A private, direct, and secure transport connection to cloud/content providers that does not travel across the public Internet.

Network Redundancy

The private, statewide Network operates a 100 GB core, which includes an optical ring architecture that provides redundant paths. With over 170+ rings, this allows data traffic to flow bidirectional establishing better network reliability.
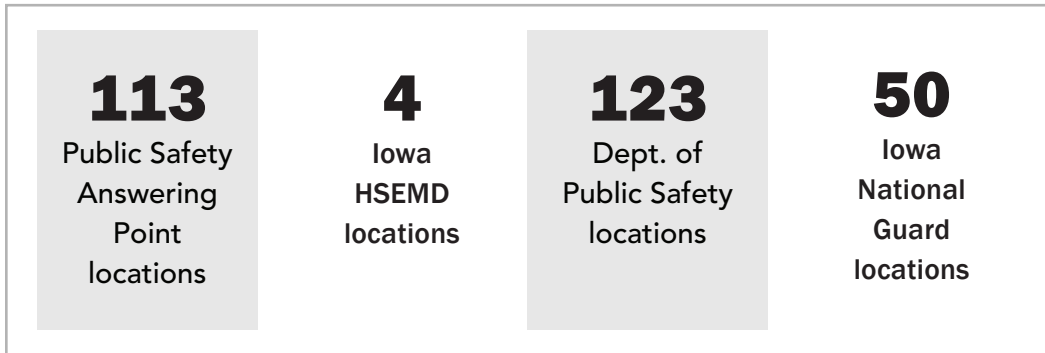
GOVERNMENT

Where do Iowans use the Network for government services?

- At all county courthouses.
- Interacting at DOT maintenance garages, driver's license stations, and construction offices.
- Visiting Human Services' offices across Iowa.
- Communicating at Workforce Development satellite offices.

IOWA COMMUNICATIONS NETWORK

OUR **PUBLIC SAFETY** COMMITMENT

LOCATIONS SERVED

113 Public Safety Answering Point locations	**4** Iowa HSEMD locations	**123** Dept. of Public Safety locations	**50** Iowa National Guard locations

THE 9-1-1 LANDSCAPE

Partnership with the Iowa Department of Homeland Security & Emergency Management

- Delivering a closed secure network for 9-1-1 wireless calls.
- Providing infrastructure and services for merging the existing wireline carrier network, consisting of all the State's wireline service providers.
- Providing colocation facilities and transport services for a Hosted Public Service Answering Point (PSAP) solution.

FIRSTNET

Interstate Playbook

Interconnectivity with neighboring states and jurisdictions is increasingly important to achieve the full benefits of an IP-based system.

ICN is working with neighboring states (MN, SD, and NE) for emergency transfers of calls across state lines.

Delivering Backup Connections

The ICN is partnering with FirstNet on behalf of the Iowa HSEMD to use FirstNet as the backup connection for Iowa-based Public Safety Answering Points (PSAPs) providing 9-1-1 services to Iowans.

- The ICN is used as the primary network provider for HSEMD and the 113 Iowa based PSAPs.
- If the primary route for 9-1-1 calls is damaged, the PSAPs connections will reroute to the FirstNet network to wirelessly connect redundant routers back to the PSAPs.
- ICN established a separate virtual private network within the FirstNet infrastructure. This provided redundant connections for wireless and wireline 9-1-1 services.

IOWA COMMUNICATIONS NETWORK

OUR HEALTHCARE COMMITMENT

LOCATIONS SERVED

103 Hospitals	**155** Clinics and other healthcare providers	**IRHTP** ICN manages Iowa Hospital Association's healthcare broadband network.

THE LANDSCAPE

Healthcare facilities are connected to either the Network directly or using the Iowa Hospital Association's (IHA) network.

IHA Partnership: Since 2008, ICN has been the technical and maintenance provider of the Iowa Rural Health Telecommunications Program (IRHTP).

IRHTP Network Update: The ICN replaced legacy equipment at 191 locations. The locations benefit from enhanced redundancy, along with increased bandwidth.

SAVINGS WITH RURAL HEALTH CARE

158 of ICN's healthcare users participate in the federal Rural Health Care program. Those users received approximately $1.9M in federal USAC funding for data services in FY 2021.

TELEHEALTH

Increased Bandwidth Proves to be a Valuable Asset

In March 2020, hospital and clinic services were nearly shut down in order to slow the possible spread during the COVID-19 pandemic. Due to the FCC rule change during the COVID-19 pandemic, ICN provided free temporary bandwidth increases for two months to 13 hospitals.

Healthcare customers used the added bandwidth for:
- Telehealth
- Clinical and non-clinical applications
- Medical staff communication, records storage, and remote specialists