



# Iowa Communications Network

A State-of-the-Art Fiber Optic Network

Internet | Data | Voice | Security | Consultation

## Network Facts

### Secure Network

The ICN operates a private (closed) state-of-the-art fiber optic Network that provides telecommunications services to authorized and certified users.

- **DDoS Mitigation Platform:** Services include high-performance network monitoring, analytics, security and forensics to detect a range of network behaviors that if needed can be mitigated.
- **State Firewall Protection:** Since 1998, ICN has operated the State firewall for most Executive agencies to protect them against incoming security threats from the Internet.
- **Disaster Recovery Site:** This site enhances network redundancy and provides a diverse fiber path.
- **Carrier-Grade Testing Lab:** A technology test facility, that allows ICN to operate efficiently as a carrier and establish a standards based approach to evaluate new technologies.

### Common Carrier Designation

FCC's Universal Service: E-rate and Rural Health Care

- Schools & libraries (E-rate) and healthcare users can access federal funding that subsidizes the costs of eligible telecom services.
- With the common carrier status, ICN began its participation with the Universal Service Fund in FY 2001.
- *How are discounts received:* Competitive bidding and award is based upon best value (primarily cost).

#### >> ICN User Savings:

- ICN's K-12 education users (167) received approximately \$2.9M in federal USAC funding for data services in FY 2021.
- ICN's healthcare users (158) received approximately \$1.9M in federal USAC funding for data services in FY 2021.

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

### Public Private Partnerships

>> **Reinvestment:** In FY 2021, ICN reinvested a total of \$23M back into the private sector with \$9.4M of that going to private telecoms.

ICN managed services incorporate premium private sector partnerships:

- Fiber Network Services, network maintenance provider (Iowa based).
- Lumen (formerly CenturyLink), managed voice provider.
- LightEdge, managed firewall provider (Iowa based).
- Private Sector Telecommunications, ICN partners with the private sector for leased fiber connections.

## Authorized Users

### Education

Locations Served:

- 348 Public & Private K-12 locations
- 9 Area Education Agencies (AEA) (45 sites)
- 15 Community Colleges (30 sites)
- 3 Regents Institutions
- 20 Private Colleges

### Healthcare

Locations Served:

- 103 Hospitals
- 155 Clinics and other Healthcare Providers
- ICN manages Iowa Hospital Association's healthcare broadband network (IRHTP).

### Government

Locations Served:

- 133 Judicial Branch locations  
Connections to all county courthouses.
- 265 Dept. of Transportation locations  
Connections to maintenance garages, driver's license stations, and construction offices.
- 158 Dept. of Human Services locations  
Connections to DHS offices across the State.
- 59 Workforce Development locations  
Connections to satellite offices.
- 231 additional State, Federal, miscellaneous government locations

### Public Safety

Locations Served:

- 113 PSAP locations  
Public Safety Answering Points (PSAP) for NG911 for Iowa Homeland Security & Emergency Management (HSEMD).
- 4 Iowa HSEMD locations
- 123 Dept. of Public Safety locations
- 50 Iowa National Guard locations

## Network Redundancy / Core Network Upgrade

Efforts continue to increase redundancy for the protection of critical users and uses, as well as provide disaster recovery functionality that will benefit all authorized users.

- **Core Upgrade Details:** 100GB native core with all counties currently connected with a 10GB capable backbone.
- **Aggregation:** With the completion of the 100GB Core, an upgrade of the 10Gb converged aggregation network will follow. This segment operates between the Core and Edge. It allows Ethernet and IP services to pass through the Network on a redundant and more resilient infrastructure.

## Firewall / Security Upgrades

- Decentralize State Firewall using virtualization.
- Build network efficiencies to further increase IP security.

## Education

**Rural Broadband Connectivity Proof of Concept:** ICN and the Iowa DOT are partnering with Iowa State University (ISU) on a proof of concept project involving wireless technology in areas of Story, Boone and Marshall counties.

## COVID-19 Support

COVID-19 forced many of our customers to reevaluate their network connectivity to support remote users and statewide telehealth requirements. ICN had the capability in meeting our customer needs.

## Continuity of Government

### New 10Gb Internet Connection

**Government Teleworkers:** Installation of new 10Gb Internet connection for the additional VPN bandwidth needed for government teleworkers to connect back to their network resources from remote locations.

## Service Support by Sector

### Healthcare

**Bandwidth Increases for Telehealth:** Due to the FCC rule change during the COVID-19 pandemic, ICN provided free temporary bandwidth increases for two months to 13 hospitals. Orders were completed within 48 hours.



### Government

**Bandwidth Increases:** At least 16 government agencies requested bandwidth increases.

**Voice Mobility:** Application enables flexibility to support teleworking of State employees.

### Data and Voice Support:

- Tested & validated phones used for Emergency activation for the Governor and her team.
- Reconfiguration and relocation of MVS phones.
- Increased Voice conference calling accounts.
- Installed cabling & switches to support data and voice.

## Public Safety and 911 (Wireless & Wireline)

Partnership with Iowa Department of Homeland Security & Emergency Management (HSEMD)

- **ICN, FirstNet, and AT&T:** ICN is partnering with FirstNet on behalf of the Iowa HSEMD to use FirstNet/AT&T as the backup connection for Public Safety Answering Points (PSAPs) providing 9-1-1 services to Iowans.
- Providing a closed secure network for 911 wireless calls.
- Providing infrastructure and services for merging the existing wireline carrier network.
- Providing colocation facilities and transport services for a hosted PSAP solution.

## Ethernet Connection

**Regular Press Conference Updates:** ICN supplied the Ethernet connection between Iowa Public Broadcasting Service (PBS) and Joint Forces Headquarters (JFHQ) for the Governor's press conferences.

## Education

**Bandwidth Increases:** Twenty-four (24) K-12 school districts requested increases in bandwidth during a special funding session through the FCC's E-rate Schools and Libraries program in October 2020.

**Public Wi-Fi at Community Colleges:** ICN assisted Eastern Iowa Community College to enable public Wi-Fi connections at their Bettendorf and Clinton campuses by setting up Wi-Fi connections in parking lots for students to access online assignments.



## County Services

**Emergency Connectivity:** ICN is providing services to 3 county emergency management agencies per the Governor's State of Public Health Disaster Emergency Proclamation and Iowa Code section 8D.9.