



BROADBAND USE IN IOWA

Connect Iowa's mapping and research have provided data-driven analyses of the challenges and opportunities to enhance statewide broadband deployment and adoption. As access and adoption rates increased over the last five years, so too did the innovative ways that Iowans are using technology. For example:

- More than half (53%) of rural Iowa parents state that their children's school provide students with a laptop or tablet computer, and 38% of Iowa parents report that receiving a computer from the school had a positive impact on their child's grades.
- 37% of working-age, low-income Iowan adults rely on the Internet to seek or apply for jobs, while one-quarter (25%) go online to further their education by taking online classes.

As a growing number of residents go online, Iowa businesses will increasingly need to rely on high-quality and reliable Internet connections to remain competitive. Broadband and technology can provide these organizations new opportunities to sustain, succeed, and grow through increased revenues, decreased costs, improved communications, enhanced efficiency, and expansion into new markets.

Small businesses in particular are key to economic growth in Iowa. Statewide, 86% of all businesses have fewer than 20 employees and these small and microbusinesses account for one-third of all jobs in Iowa. These organizations maintain a vital role in fostering vibrant communities and promoting healthy local economies through new entrepreneurial opportunities and billions of dollars in annual revenues to the state.

The last six years the rate of change has accelerated exponentially. Six years ago in Iowa there were only 12 one-to-one (school) districts in the state. That's one device per student. ...In six years we've gone from 12 to hundreds of schools and thousands of children having access to digital devices and...students are able connect with other learners globally. In Iowa, we're breaking new ground. ...The challenge is when they (students) go home and as you get out into the rural areas...bringing broadband to those rural areas is a challenge. Bringing broadband to rural America levels the playing field.

**John Carver, Superintendent
Howard-Winneshiek School District**

Community Anchor Institution (CAI) Connectivity

As part of the State Broadband Initiative program, Connect Iowa was directed to collect broadband connectivity data for Community Anchor Institutions (CAIs). CAIs are important community facilities such as libraries, K-12 schools, institutions of higher learning, public safety facilities (fire departments, state and local police offices, and sheriffs' offices), healthcare institutions such as hospitals and medical clinics, or other local, state, or federal government facilities.

In Iowa, Connect Iowa identified the names and addresses of 4,684 CAIs across the state, including 581 libraries, 1,929 K-12 schools, 109 institutions of higher learning, 1,192 public safety facilities, 179 healthcare facilities, and 683 other government facilities.

Of these identified CAIs, Connect Iowa then gathered at least partial broadband connectivity data (such as broadband platform, download speed, and/or upload speed) from 1,131 institutions (or 24%) of all identified CAIs.

The table below summarizes data from Iowa CAIs that submitted connectivity data to Connect Iowa between 2010 and October 2014.

CAI Type	Identified CAI	Technology of Transmission	Download Speed	Upload Speed
K-12 Schools	1,929	202	926	925
Libraries	581	408	444	342
Healthcare	179	71	64	64
Public Safety	1,192	107	88	89
Higher Ed Institutions	109	32	33	33
Other Government	683	302	253	281
Other Non-Government	11	9	9	9
Total	4,684	1,131	1,817	1,743

Iowa STEM Advisory Council Broadband Committee

In September of 2013, Iowa Governor Terry Branstad charged the state’s existing [Science, Technology, Engineering, & Mathematics \(STEM\) Advisory Council Broadband](#) Committee with the creation of a broadband plan for Iowa, with an initial timetable that included delivery of policy recommendations by December 1, 2013. The Committee relied on the Connect Iowa program to serve in an executive leadership role for the course of its work.



The STEM Advisory Council Broadband Committee is comprised of broadband and education related stakeholders from across the state, including:

- Co-Chair John Carver, Superintendent, Howard-Winneshiek Community School District
- Co-Chair Robert von Wolfradt, Chief Information Officer, State of Iowa
- Dave Daack, Community Technology Advisor, Connect Iowa
- Robert Denson, President, Des Moines Area Community College
- Dave Duncan, President, Iowa Telecommunication Association
- Philip Groner, Iowa Communication Network
- Karl Hehr, Director of Technology Services, Ames Community Schools District
- Galen Howsare, Chief Financial Officer, Iowa Association of School Boards
- Karen Randall, Keystone Area Education Association
- Michael Sadler, Assistant VP for Public Policy
- Larry Siegel, Iowa School Finance and Information System Services
- Jeff Weld, Executive Director, Governor’s STEM Advisory Council

There are tremendous opportunities with telemedicine. When technology improved and we found there was a greater need in the healthcare community for broadband connectivity we were happy to have access on a fiber network in rural Iowa. ...Patients that once upon a time would have been transferred to a different facility we were able to monitor in our local facility with the same expertise. ...Certainly there’s a cost savings to engaging the patients at a local basis. ...it’s a more economical position especially when it can be done just as safely...

Daren Relph, CEO
Wayne County Hospital

- Josh Byrnes, State Representative, District 14
- Steven Sodders, State Senator, District 3

Through a series of meetings held by the Committee in the fall of 2013, the Committee released an [initial report and series of broadband policy recommendations](#) to Governor Branstad. These policy recommendations became the basis for broadband legislation introduced by the Governor, and considered (but not ultimately enacted) by the Iowa State Legislature in 2014.

The Broadband Committee, with assistance from Connect Iowa, continued to meet throughout 2014 and the winter of 2015, and released a [follow-up report and recommendations](#) on February 6, 2015.

2013 Iowa Broadband Summit

Connect Iowa hosted the state’s first broadband summit at the Historical Building located in Des Moines, Iowa. This day-long event was attended by 127 stakeholders including broadband providers, economic development professionals, and community leaders from a variety of sectors such as libraries, public safety, healthcare, and state government.

Attendees received an overview of Iowa’s broadband landscape, learned about broadband access issues and opportunities from representative broadband providers and heard from communities involved in the Connected Community Engagement Program’s broadband assessment.

Sponsors included AT&T, Iowa Network Services, Iowa Farm Bureau’s Renew Rural Iowa program, and Connect Iowa’s state partner, Iowa Economic Development Authority.

The theme of the summit was Empowering Communities, and the agenda focused on economic growth with broadband. This summit was structured to provide community leaders with information on best practices for increasing broadband access, adoption, and use. The venue was a launch pad for conversation between communities and broadband providers; it served as a neutral playing field to educate communities on topics such as why a provider may or may not increase access and what they can do to work with providers in looking to increase capacity in the future (which includes increasing adoption/subscribers and creating innovative broadband applications to enhance adoption).

Iowa is competing not only in the United States, but also globally. Jobs, economic survival, and the quality of life are at stake. The heart of the issue in determining the vitality of Iowa for the next 20 years is broadband Internet access.

John C. Carver, Howard-Winneshiek Superintendent of Schools and Co-Chair of the STEM Advisory Council’s Broadband Committee

2014 Iowa Broadband Summit

Connect Iowa held the second statewide broadband summit at the Future Farmers of America (FFA) Enrichment Center in Ankeny, Iowa on June 16, 2014. This summit built on the success of the 2013 event and saw an increase in participants and sponsorship.

Both the content and target audience was strategically diverse, in order to provide education on a variety of broadband-related content to which a general audience might not otherwise readily have access.



From left to right: Amy Kuhlers, Program Manager, Connect Iowa; Janice Eagle Hawk, IT Director and Larry Lasley, Economic Development Director and Chairman of the Board, both from The Sac & Fox Tribe of Mississippi in Iowa; John Carver, Superintendent

The summit hosted 155 attendees, including representatives from the following sectors: broadband providers, education, public safety, healthcare, libraries, community leaders, economic development, federal, state and local government, and business and industry. Iowa Governor Terry Branstad provided opening comments, reinforcing his dedication to increasing Iowa's broadband access, adoption, and use.

Keynote presentations provided attendees with information on wireless (primarily mobile) broadband, with one presentation focusing on agricultural needs. Additional content was provided in the following sessions:

- Digital job creation
- FirstNet education and outreach in Iowa
- E-health innovations and applications
- Broadband in schools and libraries
- Community broadband solutions

Sponsors for the event included Mediacom Business, AT&T, Great Lakes Communications Corp., Iowa Network Services, Iowa Farm Bureau's Renew Rural Iowa program, Iowa Economic Development Authority, and Des Moines Area Community College.

Public Safety Broadband Network/FirstNet

In 2014 and 2015, Connect Iowa, worked in collaboration with the Iowa Statewide Interoperable Communications System Board (ISICSB) on elements of the First Responder Network Authority (FirstNet) system to implement the Public Safety Broadband Network (PSBN). This project was separate from the SBI grant work but related in that it addresses access, adoption, and use issues in Iowa.

The need for dedicated first responder communications was recommended by the [9/11 Commission](#) in its report compiled in the wake of the terrorist attacks of September 2001.³ Further, Chapter 16 of the FCC's [National Broadband Plan](#) is dedicated to public safety and included a recommendation to create a nationwide interoperable public safety wireless broadband communications network, which was realized with the creation of FirstNet and plans for the PSBN. [FirstNet](#), an independent authority within NTIA, is tasked with establishing an interoperable communications network for use by emergency/first responders, and was created by the U.S. Congress as part of the Middle Class Tax Relief and Job Creation Act of 2012. As part of initial consultations in every state conducted by FirstNet, more than 50 state and local public safety stakeholders attended FirstNet's

eight initial consultation event held on November 18, 2014, in Des Moines, Iowa.⁴

The ISICSB is working through FirstNet's State and Local Implementation Grant Program (SLIGP) to assist state and local government entities in Iowa in planning for Iowa's integration into the PSBN and partnered with Connect Iowa to conduct local community meetings on FirstNet and the PSBN in all 99 Iowa counties.

FirstNet is a national public safety broadband network for public safety users for data. ...Law enforcement uses data for their in-car systems such as sharing videos; we can pull records, search databases, and run wireless cameras from the car. ...We live in a mobile world. ...FirstNet was designed because the commercial networks are becoming busier and busier and we need...a reliable network to use.

**Thomas Lampe, Interoperability Officer
State of Iowa, Department of Public Safety**

³ <http://www.9-11commission.gov/report/911Report.pdf>

⁴ <http://www.firstnet.gov/newsroom/blog/firstnet-initial-consultation-meeting-iowa>

To date, the ISICSB (in partnership with Connect Iowa) has completed community consultation presentations in 95 of 99 counties, with six more counties scheduled for local FirstNet presentations and only five counties yet to be scheduled for completion. The progress of ISICSB's local community work can be tracked at an [interactive map on ISICSB's website](#)



Some states have been quite aggressive in their [FirstNet] outreach plans. Iowa has one of the very best plans. Iowa has a FirstNet point of contact in each of its 99 counties. Iowa has held face-to-face meetings with responders in almost all the counties and is forming committees in each of its six homeland security regions. Iowa has also received some of the best media coverage, such as coverage by Cedar Rapids TV stations for its meeting with responders in Linn County.

Government Technology



More than 50 state and local public safety stakeholders attended the Iowa Initial Consultation meeting November 18. (Photo via Alex Murphy, Public/Media/Internal Relations at Iowa Department of Public Safety)