Valuable Collaboration Reliable Broadband Quality Robust
Redundant Internet Possibilities Video Infrastructure Voice
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# **Iowa Communications Network**

Redund Sharing Iowa's Infinite Possibilities Voice

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# 2011 Annual Report

he Iowa Communications Network (ICN) is the country's premier distance learning and state government Network, committed to continued enhancement of distance learning and providing Iowans with convenient, equal access to education, government, telemedicine.

The Network makes it possible for Iowans, physically separated by location, to interact in an efficient, creative, and cost-effective manner. ICN services include full-motion video, video over IP, voice (phone), data, Wide Area Network (WAN) connections, and high-speed Internet.

Through partnerships with education, medicine, the judicial system, and government agencies, the Network brings live, full-motion video to over 700 classrooms around Iowa, located in schools, National Guard armories, libraries, hospitals, and federal and state government offices.

### **Commission Members:**

Betsy Brandsgard, Chairperson

**Richard Bruner** 

**Shannon Cofield** 

Dr. Robert Hardman

**Timothy Lapointe** 

David Vaudt, Ex-Officio

### Mission

Through Iowa's broadband infrastructure and partnerships, broker access for Iowans to acquire the highest quality education, medical, judicial, and governmental telecommunications services.

### **ICN Guiding Principles**

- 1. Customer focused
- 2. Benefit the citizens of Iowa
- 3. Partner with private sector entities
- 4. Value and empower employees
- 5. Teamwork and cooperation
- 6. Trust and integrity
- 7. Results driven

### How to Contact the ICN

Grimes State Office Building 400 East 14th Street Des Moines, IA 50319

T: 515-725-IOWA (4692)

TF: 877-426-4692 F: 515-725-4727

E: icn.info@iowa.gov

W: www.icn.state.ia.us



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TERRY BRANSTAD, GOVERNOR KIM REYNOLDS, LT. GOVERNOR

#### IOWA TELECOMMUNICATIONS AND TECHNOLOGY COMMISSION

Betsy Brandsgard CHAIRPERSON

Timothy Lapointe Robert Hardman

Richard Bruner Shannon Cofield David A. Vaudt

November 28, 2011

The Honorable Terry E. Branstad Governor, State of Iowa State Capitol Des Moines, Iowa 50319

Dear Governor Branstad:

On behalf of the Iowa Telecommunications and Technology Commission (ITTC) overseeing the Iowa Communications Network (ICN), I am pleased to submit the Fiscal Year 2011 Annual Report. Throughout the report you will find stories and examples that demonstrate the many ways in which ICN video, voice (phone), Internet, and data services have touched the lives of Iowans across our state.

Fiscal year 2011 was an exciting year for the ICN with the award of a federal broadband grant from the Broadband Technology Opportunities Program (BTOP) of the American Recovery and Reinvestment Act. This three-year broadband project will provide the capability to improve ICN's network infrastructure by increasing bandwidth that will reach all 99 counties in Iowa. This grant provides ICN the means to remove legacy equipment, simplify troubleshooting, provide additional bandwidth to sites and counties, and cost effectively bring authorized users to the Network at the bandwidth advanced applications require.

The ICN continues to be a cost-saving asset to a variety of integral partners. Operating over 8,600-miles of fiber-optics (3,400-miles state-owned and 5,261-miles leased) lays the foundations of true partnerships with ICN and Iowa's private telecommunications providers. With distance learning, Iowans benefit from ICN's commitment to continued enhancements in education, healthcare, and government through the statewide Network.

I am pleased to provide the Fiscal Year 2011 Annual Report for your review, and trust you will agree that the ICN remains a valuable asset to Iowans. In 2012, the Commission and ICN plan to utilize additional partnerships with private service providers and community anchor institutions to bring a variety of telecommunication services to all Iowa counties.

We appreciate the opportunity to be of service.

Sincerely,

Betsy Brandsgard Chair Iowa Telecommunications and Technology Commission

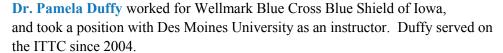


# **Commissioner Changes**

Two Commissioners on the Iowa Telecommunications and Technology Commission (ITTC) resigned from their duties in December 2010.



**Michael Mahaffey** retired as Poweshiek County Attorney, in addition to the ITTC. Mahaffey served on the ITTC since 2005.





Iowa's Governor Terry Branstad appointed Richard Bruner and Shannon Cofield to serve on the ITTC, the governing body of the ICN, in February 2011.



Richard (Dick) Bruner is a telecommunications professional with over 40 years experience in public policy, regulatory affairs, marketing, sales and operations. His corporate experience includes working for AT&T, Northwestern Bell and USWEST. Most recently, he was a Telecommunications Consultant with Kiesling Associates – CPAs and Consultants who serve the Independent Telecommunications providers in Iowa and the Midwest. He has served as a Deputy on the Iowa Business Council and on the Dean's Advisory Board for the College of Business at Iowa State University for many years. Dick graduated from Iowa State University and served as a naval flight officer during the Vietnam War.



**Shannon Cofield** has served as President of United Way of Central Iowa since 2004, and provides overall management in the development and implementation of the organization's strategic direction in the areas of education, financial stability, and health. She serves on the board of the Greater Des Moines Partnership, the Iowa Regional Workforce Investment Board (Region 11), and the Des Moines Social Club. Shannon is also a member of United Way Worldwide's Membership Accountability Committee, and serves on the organization's U.S. Economic and Growth Model Task Force. She is a frequent

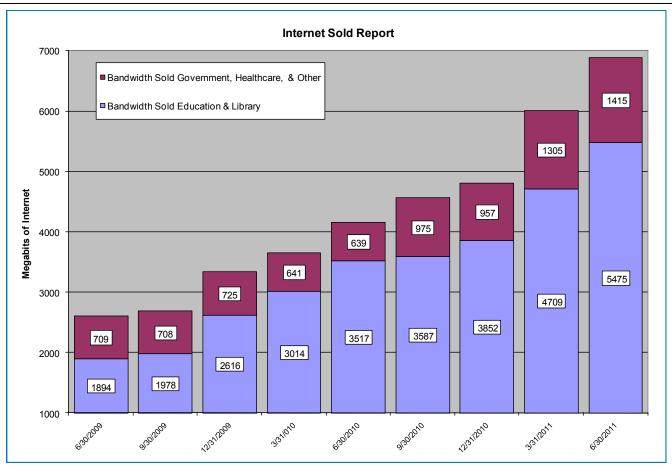
speaker and moderator on nonprofit governance issues. She holds an MBA from The University of Iowa, and a bachelor's degree from Georgia State University.

#### **Did You Know Facts**

- Commission members' six-year appointments are confirmed by the Senate.
- The executive director is appointed by the Commission, and confirmed by the Senate.
- The authorization for the construction of the Network was passed during the 1989 Legislative Session.



# **ICN Services Update - Internet**



When state and federal governments, public and private schools, higher education, healthcare facilities, libraries, and courts seek secure, fast, reliable Internet access, they call upon the ICN. Our robust Network and ability to purchase volume services means higher quality and lower prices for customers.

- ICN's bandwidth and data services continue to climb at a steady pace, more than doubling in the past two years. This reflects the demand and need for greater access to high-speed Internet by ICN's authorized users.
- The amount of Internet purchased by customers (authorized users) has increased 165 percent over the past two years (2603 Megabits to 6890 Megabits).
- Seventy-nine (79) percent of the Internet provided by the ICN is being used by educational entities (5475 Megabits by education, 1415 Megabits for non-education).
- Eighty-four (84) percent of the 4287 Megabit increase over the last two years has been ordered by educational entities (3581 Megabits for education, 706 Megabits for non-education).
- The Iowa 1:1 Laptop program was created to develop new innovative teaching, learning, and administrative practices. ICN provides many Iowa schools with Internet services necessary for the program. Schools see the need of increasing bandwidth capabilities by doubling, and in some cases, tripling their previous Internet capacity.



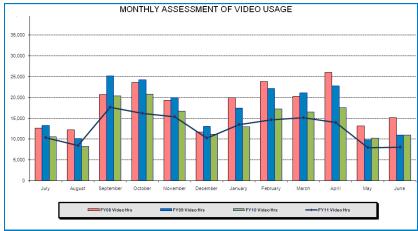
# ICN Services Update - Video

### **ICN Full-Motion Video Conferencing**

- ICN produced a total of 151,785 full motion video hours in Fiscal Year 2011.
- Top three MPEG video groups in Fiscal Year 2011: Community College, Higher-Education, K-12 Education.

• Over 22,800 individuals participated in *K-12 Connections* during Fiscal Year 2011. *K-12 Connections* is a partnership between Iowa Public Television and ICN, which provides programming for K-12 students and educational

professionals.

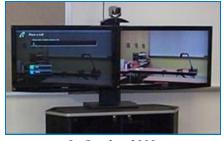


### Transitioning to a Video over IP Platform

ICN is incorporating an Internet Protocol (IP) video service, which is based on current industry standards for video conferencing (H.323/SIP). The maturity of this standard provides robust features, high video quality, and extensive support. For ICN's authorized users, the IP video conferencing service extends the equipment of ICN's full motion distance learning video application.

Benefits to ICN's IP video conferencing platform:

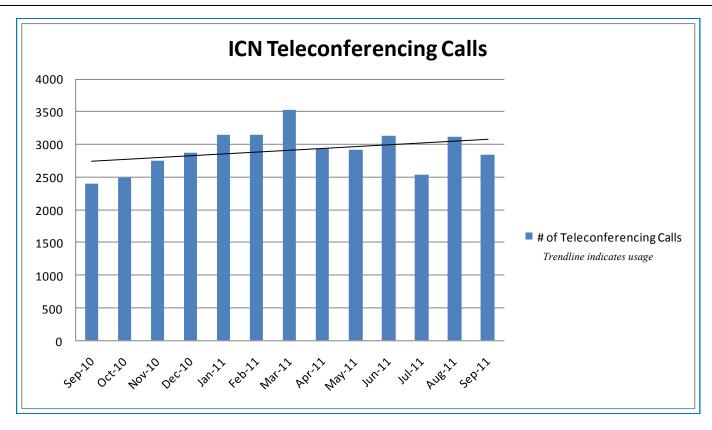
- No dedicated ICN room required
  - Streamlined multi-purpose rooms
  - Open microphone layouts (push-to-talk microphones not required)
  - Flexible cart systems available
- Ability to reach new users
  - Customers can expand their interactive meetings and educational offerings beyond the walls of the boardroom and the classroom
  - Anytime, anywhere learning (mobile device, desktop, etc.)
- Cost savings (more efficient & economical)
  - Increases productivity
  - Provides multiple low-cost options
  - Allows for more features at greater savings
  - Requires less bandwidth than full motion video
  - Lower costs for equipment



In October 2010,
Belle Plaine High School was the first
early adopter, using a Polycom
endpoint cart system, to connect to
ICN's IP video conferencing platform.



# **ICN Services Update - Voice (Phone)**



Voice (Phone) is the most fundamental form of communication that our authorized users utilize. Within seconds of connecting to a live person, individual identification as well as an individual's location can be tracked from just a simple phone call. ICN offers a 99.999% Network reliability and dependability to its customers.

- ICN offers local phone service, to state agencies located on the Capitol Complex and throughout the Des Moines metro area. In addition, we offer long distance, toll-free, calling card, and reservationless voice conferencing services.
- ICN is researching options for a Managed Voice (Phone) Services (MVS) platform that meets or exceeds equivalent types and levels of features and services currently provided. The goals are to utilize the Network to reach authorized users and incorporate a Unified Communications (UC) component.

### **Taking Safety Measures for Phone Customers**

ICN serves nearly 12,000 telephone, fax, and modem numbers in the Des Moines metropolitan area. As the corporate telephone service provider for state agencies, ICN has the responsibility to maintain the State of Iowa's 911 Intrado database. Intrado provides 911 and emergency communications infrastructure, systems and services to telecommunications service providers and government public safety entities in the USA and worldwide. ICN enters phone and specific address location into this database, so in the event that a 911 call is dialed by a customer, emergency personnel can be dispatched to the phone's location.



### **DISTANCE EDUCATION** is the ICN's **FOCUS**.

The ICN exists as the **PREMIER DISTANCE LEARNING AND STATE GOVERNMENT** Network in the country.

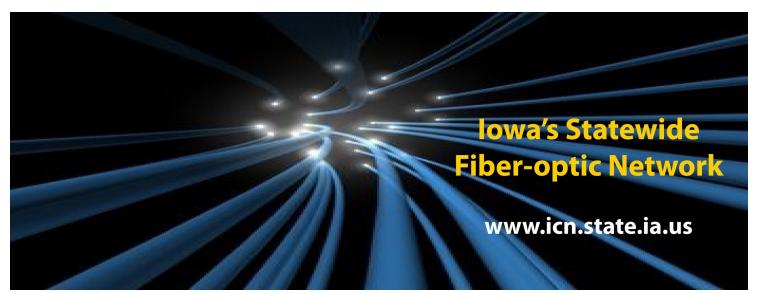
Iowa's schools and libraries **SAVED OVER \$32 MILLION** with ICN's **INVOLVEMENT** in **DISTANCE LEARNING** with the Federal Communications Commission's Universal Service Administrative Company program.

**SEVENTY-NINE PERCENT** of the Internet provided by ICN is being used by **EDUCATIONAL FACILITIES**; which is becoming an absolute requirement for distance learning.

Iowans in rural areas across the state benefit from **CONVENIENT**, **SPECIALIZED TELEMEDICINE** care over the ICN, through radiology readings and results, electronic medical records, and remote ICU monitoring.

The use of the ICN for **TELEJUSTICE** proceedings allows state and federal justice organizations to **SAVE TAXPAYER MONEY**, families can watch court proceedings, and **PROVIDES A SAFE ENVIRONMENT** for employees.

The ICN was **ESTABLISHED TO BE A PUBLIC ASSET** to assist the private sector, and ICN represents Iowan's investment while **PARTNERED WITH THE PRIVATE SECTOR** to **BENEFIT** the citizens of Iowa.





### ICN Received Federal Broadband Grant



ICN received \$16.2 million for broadband infrastructure funding for its "Bridging the Digital Divide for Iowa Communities" grant project on July 1, 2010.

A Comprehensive Community Infrastructure (CCI) application was submitted to the federal Broadband Technology Opportunities Program (BTOP). The CCI project, proposed during the second round, will enhance the Network to a ten (10) Gbps (gigabytes per second) backbone that would reach all 99 counties in Iowa. This middle mile network advancement will also provide one (1) Gbps of

symmetrical Ethernet connectivity to over 3,000 education facilities, healthcare facilities, libraries, public safety, workforce development, and other Community Anchor Institutions throughout the state.

ICN's CCI grant included partnering efforts with key anchor institutions throughout Iowa; Meskwaki Nation, Decorah MetroNet, community colleges, and several state agencies. The project will enable many public and private partnerships to be established, specifically with Iowa's local telecommunication providers.

### Benefits Received from ICN's Broadband Infrastructure Grant:

- Allows the ICN to remove legacy equipment, streamline protocols used on the Network to simplify
  troubleshooting, as well as maximize available throughput (volume of data), provide additional bandwidth to
  sites and counties, and cost effectively bring authorized users to the network at the bandwidth the applications
  require.
- Enables Iowa Emergency Management to use advanced web-based emergency management applications, and provide Iowa Department of Public Safety with reliable, statewide, high-speed connections to local law enforcement agencies and Public Safety Answering Point.
- Allows many public and private partnerships to be established, specifically with Iowa's local telecommunication providers.



Pictured left to right: Lt. Larry Grant (DPS), Dave Lingren (ICN), Dr. Pamela Duffy (ITTC); Congressman Boswell; Lt. Governor Patty Judge, and Eugene Meyer (DPS)

In August 2011, U.S. Congressman Boswell congratulated ICN on being awarded its federal broadband grant from the BTOP. The event included a panel discussion explaining how ICN's funding will improve broadband connectivity, which will have a significant impact on public safety across Iowa.

"A reliable 21st century communications network is vital for thousands of rural communities to survive and grow," Congressman Boswell said. "I have always fought for federal investment in broadband in Iowa to support our schools, improve public safety and emergency management services, and grow our small business community. This \$16.2 million grant to the Iowa Communications Network will improve public safety and [the] discussion was valuable to understanding how these federal dollars will be used."

Utilizing PARTNERSHIPS with community anchor institutions to bring ENHANCED BROADBAND capabilities to Iowa's 99 counties.



# Federal Grant Preparations Begin

#### ICN Achieved Broadband Milestone

In February 2011, ICN received its Finding of No Significant Impact (FONSI) notification for the Environmental Assessment (EA) that was submitted to the National Telecommunications and Information Administration (NTIA). The EA assists NTIA in determining the extent to which the project may impact environmental, cultural, or historic resources.

The vast majority of ICN's project includes replacing Network equipment located inside existing facilities. The need for ICN to submit an EA was due to outside work of building out fiber-optics routes in three locations: Decatur County, Tama County (Meskwaki Nation), and Winneshiek County.

Submitting ICN's EA was a collaborative effort between many entities within Iowa. Involved were Fiberutilities Group, based in Cedar Rapids, the Meskwaki Nation, and the Winneshiek County consortium, which includes the Winneshiek Medical Center, Decorah School District, Decorah Community Library, City of Decorah, Winneshiek County, and Luther College.

#### ICN's Federal Broadband Information is Online

To ensure transparency, view reports and agreements related to ICN's federal broadband grant at the BroadbandUSA website at www2.ntia.doc.gov/grantee/iowa-communications-network.

Find project overview descriptions, financial information, environmental documents, agreements, and terms/conditions forms.



### **About ICN's Broadband Grant**

**Enhancing** the Network to provide up to 1 Gbps (gigabits per second) **Ethernet** connections to edge locations, and capable of 10 Gbps to the aggregation sites at each county.

Community anchor institutions served by this project includes over 3,000 libraries, educational institutions, and government facilities.

Almost 1,000 installations will impact 450 new sites, over 560 direct locations, and indirectly enhance 3.081 locations.

**Benefits** include ability to use **robust Internet (broadband)** applications that require **large** amounts of **bandwidth**, (i.e. transmitting hospital MRIs, video streaming, and web-based systems).



## Redundancy—Needed for Sustainability

### **Innovation for Public Safety's Future**

ICN's fiber-optic infrastructure is assisting in the public safety initiative with the Iowa State Patrol (ISP). An audio-streaming application at the ISP's Communication Centers will provide the redundancy that is critical for public safety communications across Iowa. Currently, ISP records all radio traffic that is transmitted on state frequencies and telephone lines at separate communication centers.

"Using technology along with the new ICN circuits that were installed...allows shared dispatching capabilities between centers"

With ICN's Internet, the technology offers all centers the ability to playback not only their own radio traffic immediately, but also radio traffic from other centers. Having this ability allows the ISP the flexibility during a natural disaster or routine maintenance to shift responsibilities and resources to alternative centers.

"Implementing an application like this has been very challenging in the past and is a huge step forward for ISP Communications," said Lieutenant Larry Grant, ISP's Planning & Technology Officer. "Using this technology along with the new ICN circuits that were installed into three communications centers allows shared dispatching capabilities between the centers. If one center has a failure because of technical difficulties, a communication center can switch or transfer phone lines and radio traffic to another center," Grant said.

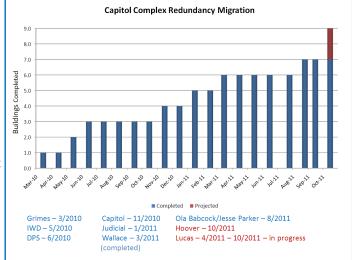
### **Implementing a New Phone Platform**

ICN has actively migrated its previous phone platform to the Siemens HiPath 4000 phone system. ICN transfered 6,720 phones leaving approximately 1,000 phones, and the relocation of 10 system shelves to remote Capitol Complex offices.

Prior to the upgrade, all phones were dependant on ICN's switch room located in the Lucas State Office Building. The new distribution of the phone system reduces the dependency of ICN's switch room, and allows for phone services to continue in the event of a catastrophic loss to ICN's switch room.

The first building transitioned was the Grimes State Office Building in March 2010, and since then there has been steady progress with Iowa Workforce Development, Department of Public Safety, Capitol, Judicial, and Wallace Buildings. The last building transitioned will be the Hoover State Office Building.

The phone replacement project was funded with infrastructure appropriations, due to the project's direct impact and enhancements on the Capitol Complex.



There were many factors when determining why a phone platform migration was needed. The new platform assists in reducing operating costs, helps with redundancy on the Capitol Complex, and aids in relieving the complexity of finding replacement parts by reducing the different models of phones distributed on the Capitol Complex.



### Teacher of the Year Uses the Network

wonderful

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On December 6, 2010, hundreds of Iowa high school students used ICN's technology to participate in a way f mini book discussion with Sarah Wessling, the 2010 from National Teacher of the Year and other distinguished guests.

Iowa Public Television's (IPTV) *K-12 Connections*, in conjunction with the Des Moines Public Library, presented *To Kill a Mockingbird: Share the Experience*, to multiple video sites. IPTV and the ICN provide unique educational opportunities at no cost, saving both students learning time and assisting in schools' budget needs.

Wessling stated to get so many students talking about *To Kill a Mockingbird* is an English teacher's dream. Wessling said, "These types of discussions go outside

classrooms and schools, and this was a wonderful way for students to talk about literature, and pull from literature the ideas that connect us all."

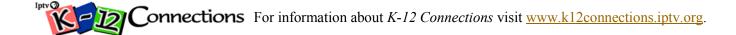
Wessling received the 2010 National Teacher of the Year award from President Obama in April 2010. She teaches high school English at Johnston High School in Johnston, Iowa.

Additional distinguished guests at the session included James Autry and Polk County District Court Judge, Odell McGhee. Autry has been recognized for his skill as an author with numerous awards for his books to advise business leaders to books of poetry. Judge McGhee was elected to the board of

the National Bar Association, and was president of the Iowa National Bar Association for more than ten years.



Sarah Wessling, the 2010 National Teacher of the Year, interacting with students during the video session, *To Kill a Mockingbird: Share the Experience*, held on December 6.



Iowa Communications Network Page 13



# A 21st Century Learning Environment

The new Waverly-Shell Rock Middle School is taking technology to the next level by providing each student in 5<sup>th</sup> through 8<sup>th</sup> grades with an iPad for the 2011-2012 school year.

After the flood of 2008 destroyed the prior school, the district decided to incorporate a 21<sup>st</sup> century learning environment by using bond funding and FEMA money received.

With students being immensely familiar with technology, a suggested business model



was to incorporate handheld mobile technology devices by participating in the 1:1 Program. Waverly-Shell Rock was anticipated to be the first school district in the Cedar-Valley area to implement the program, and one of the very few in the United States to use the iPad rather than laptops or netbooks.

Through the creation of the new middle school, the question

turned to investing in multiple computer labs or individual devices. By purchasing the iPad technology, the school district planned to save \$180,000.

With the new endeavor came obstacles such as sustainability of the devices and mobility. Content is largely limited when exclusively focusing on text books. The money dedicated to purchasing textbooks can be used for online subscriptions for the iPads. The sustainability increases when students have a constant opportunity to access the Internet to research world-wide topics and learn real-time educational issues.

ICN's fiber-optic infrastructure provides Waverly-Shell Rock with the critical link to ensure that the iPad project is successful by supplying the Internet and bandwidth needed for the multiple applications teachers/students will use each day. In the future, it is anticipated that the high school will also be a wireless hub.

"We could not do this initiative without the ICN," said Bridgette Wagoner, Waverly-Shell Rock's Director of Educational Services. "It's critical to have the infrastructure in place when handing teachers and students a piece of equipment that completely relies on the technology."

One critical concern still being considered is the Internet adoption aspect for parents and caretakers of students. Since the majority if not all of the curriculum will be digital, having a reliable, consistent Internet connection will be essential at home.

"This is an issue that we will have to face head-on; we know that consistent Internet connectivity will affect families in rural communities and low-income households,"

ICN's fiber-optic infrastructure provides the critical link by supplying the Internet and bandwidth.

"We could not do this initiative without the ICN," said Bridgette Wagoner, Waverly-Shell Rock's Director of **Educational** Services. "It's critical to have the infrastructure in place when handing teachers and students a piece of equipment that completely relies on the technology."



# Anytime, Anywhere Learning

Wagoner stated.

At this time the school district has no specific plans, but is looking into how to potentially support the Internet access to student's households.

Waverly-Shell Rock is excited to be a part of the next wave of technology. They talk about their 1:1 iPads through the lens of a Wayne Gretzky quote that says he skates to where the puck is going to be, not where it is. Waverly-Shell Rock is moving beyond where technology is now and instead looking to where it will be in the future.



### **World Read Aloud Day 2011**



Librarians, educators, and media specialists, all across Iowa, participated in a *K-12 Connections* video session in February 2011, to prepare for World Read Aloud Day 2011. World Read Aloud Day motivates children, teens, and adults worldwide to celebrate the power of words, especially those words that are shared from one person to another, and creates a community of readers advocating for every child's right to a safe education and access to books and technology. The session discussed a variety of ways Iowans could be involved locally, as well as hold an own event, or participates online.



On March 9, 2011, Iowa's World Read Aloud Day Ambassador, Angela Maiers, hosted a live event at the Johnston Public Library. Iowa authors, librarians, and students from Van Meter Schools were in attendance. For additional information about World Read Aloud Day visit <a href="https://library.com/librarians/librarians/">librarians, and students from Van Meter Schools were in attendance. For additional information about World Read Aloud Day visit <a href="https://librarians.com/librarians/">librarians/</a>, and students from Van Meter Schools were in attendance. For additional information about World Read Aloud Day visit <a href="https://librarians.com/librarians/">librarians/</a>, and students from Van Meter Schools were in attendance. For additional information about World Read Aloud Day visit <a href="https://librarians.com/librarians/">librarians/</a>, and students from Van Meter Schools were in attendance. For additional information about World Read Aloud Day visit <a href="https://librarians.com/librarians/">librarians/</a>, and students from Van Meter Schools were in attendance. For additional information about World Read Aloud Day visit <a href="https://librarians.com/librarians/">librarians/</a> and students from Van Meter Schools were in attendance.

*K-12 Connections* sessions are provided at no cost by Iowa Public Television in collaboration with the ICN to PK-12 students and the adults working with or on behalf of PK-12 students in Iowa. For additional information about *K-12 Connections* visit <a href="https://www.k12connections.iptv.org">www.k12connections.iptv.org</a>.

### **Increasing Digital Literacy**



In May 2011, U.S. Commerce Secretary Gary Locke launched <u>DigitalLiteracy.gov</u>, a website designed to increase digital literacy and lifelong learning skills that help Americans navigate this new Internet-based economy. DigitalLiteracy.gov was created in partnership with nine federal agencies to provide librarians, teachers, workforce trainers and other practitioners a central location to share digital literacy content and practices.

DigitalLiteracy.gov features resources and tools used to teach and develop digital literacy skills including lesson plans, video games, online training tools, and train-the-trainer materials. The site's workforce development page connects users to a wide variety of career building applications that teach the digital skills needed for today's global workforce including word processing fundamentals, resume building tips, and job search techniques. User-friendly search options and tags allow visitors to find resources by competence, subject area, provider, skills level, or keyword. Discussion threads let visitors connect and share ideas on a variety of topics and to develop feedback and best practices.



### ICN Joins Facilities to 'HealthNet Connect'

Telemedicine has a long-standing history with the ICN, and we were thrilled to have the opportunity with Iowa Health System (IHS) in advancing healthcare in the State of Iowa.

In August 2010, ICN was awarded a contract to connect twenty-seven (27) IHS' healthcare facilities (Phase 2) to IHS' HealthNet Connect fiber-optic network. HealthNet Connect is a fiber -optic network capable of transforming health care in Iowa by enabling health-care providers to communicate medical information instantaneously across the state. ICN served IHS' growing tele-health needs with a flexible, efficient Network infrastructure. The connections will facilitate information sharing between community anchor institutions in Iowa, Chicago, and Denver.

The goal of HealthNet Connect is to facilitate, through connectivity, improvements in patient care by making available both critical care and new ground breaking health care applications to rural users. ICN provides the sites with 100 Mbps (megabytes per second) capacity, which enables the deployment and use of various tele-health applications in the rural environment through large bandwidth connectivity. This connectivity provides high-speed Internet access to over 200

additional communities statewide, while utilizing IHS's long-haul connection.

A third phase of the HealthNet Connect project was awarded to ICN on June 28, 2011. In this phase, ICN's involvement includes the connection of three (3) additional healthcare facilities in Iowa

In 2007, Iowa Health System applied for and was awarded access to funds in the amount of \$7.8 million from the FCC's Rural Health Care Pilot Program (RHCPP). The purpose of this funding is to create first mile access connections to the existing core backbone fiber network by a broad range of health care providers (eligible and non eligible). The funds have been administered under the rules of the FCC and the guidelines of the Universal Service Administrative Company (USAC).

For additional information about IHS' HealthNet Connect Network visit <a href="https://www.healthnetconnect.org">www.healthnetconnect.org</a>.

	TI III E TIL N	C**	
DI A	Healthcare Facility Name	City	
Phase 2	Community Health Centers of Southern IA	Albia	
	Community Health Centers of Southern IA	Centerville	
	River Hills Appanoose Co Clinic	Centerville	
	Community Health Centers of Southern IA	Chariton	
	People's Community Health Clinic	Clarksville	
	Community Health Centers of Southern IA, Louisa Co	Columbus City	
	Community Health Centers of Southern IA	Corydon	
	INConcertCare	Davenport	
	Primary Health Care, Engebretsen Clinic	Des Moines	
	Primary Health Care, East Side Center	Des Moines	
	Primary Health Care, Outreach Project	Des Moines	
	Cresent Community Health Center	Dubuque	
	Community Health Center of Fort Dodge	Fort Dodge	
	Community Health Center of SE IA, Keokuk Clinic	Keokuk	
	Community Health Center of SE IA, Women's Health Ctr	Keokuk	
	Community Health Centers of Southern IA	Lamoni	
	Community Health Centers of Southern IA	Leon	
	Primary Health Care	Marshalltown	
	Primary Health Care, Marshalltown Clinic	Marshalltown	
	River Hills Community Health Center	Ottumwa	
	River Hills Pediatric Clinic	Ottumwa	
	Siouxland Community Health Center	Sioux City	
	United Community Health Center	Storm Lake	
	Primary Health Care	Urbandale	
	People's Community Health Clinic	Waterloo	
	Community Health Clinic of SE IA	West Burlington	
	Jones Regional Medical Center	Anamosa	
Phase 3	Anita Medical Center	Anita	
	Massena Medical Center	Massena	
	Allison Family Practice	Allison	



### Connecting the IRHTP Healthcare Network

The Iowa Rural Healthcare Telecommunications Program (IRHTP) officially connected forty-four (44) healthcare facilities to its statewide fiber-optic Network, hosted by the ICN, in Fiscal Year 2011. The connected healthcare facilities utilize private Ethernet services and Internet, provided by the ICN, to exchange medical information including radiology studies, electronic medical records, and remote ICU monitoring.

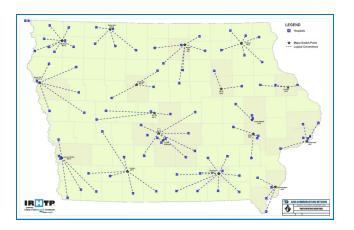
The overall goal is to deploy a secure, statewide, high-speed network connecting rural hospitals to vital healthcare resources. Each IRHTP site purchased last-mile fiber access to their facility, and is participating in cost sharing to acquire network electronics. ICN's backbone completed the high-speed IRHTP core network by providing each core site with redundant 10 gigabit connections.

ICN received service orders for 84 healthcare facilities. In the future with private sector partnerships, multiple medical clinics can also be connected to the Network. ICN is responsible for: inventory control, electronics implementation and testing, connecting each health care site when the fiber path is installed, customer orders and service turn-up, and on-going maintenance.

ICN collaborated with the Iowa Hospital Association in the development of a detailed grant proposal submitted to the Federal Communications Commission (FCC) under their USAC Rural Health Care Pilot Program (RHCPP). The FCC's grant funding will pay for 85 percent of the entire project.

### Making Better, Faster Decisions with Technology

"The impact of IRHTP is most evident in the emergency rooms," stated Joe Moore, Radiology Consultants of Iowa's Chief Information Officer. "We are now able to report our findings much faster than before, by as much as 30 minutes or more. This helps the rural ER doctor in the middle of the night make better, faster decisions, so they can determine if the patient should stay there or be transported to a larger urban facility."



A map of healthcare facilities participating in the Iowa Rural Healthcare Telecommunications Program (IRHTP) through the collaboration of Iowa Hospital Association and the Iowa Communications Network.



### The Valuable Statewide Asset for Iowans

### ICN is a state-of-the-art fiber-optic communications network

- 40 Gigabit Network, state-of-the-art technology for data transport.
- ICN's Ethernet Network is technologically neutral transporting a number of applications.

### **ICN** does not receive General Fund appropriations

- ICN operates in a fee-based environment.
- In March 2005, ICN paid back ALL bonding monies (Certificates of Participation) associated to building the backbone of the Network.

### State agencies save money by using ICN services

- State agencies report saving approximately \$1 million per month by using ICN video services alone.
- During fiscal years 2008, 2009, and 2010, state agencies reported saving over \$32 million in travel and employee productivity costs by using the ICN video services.

#### **Education benefits because the ICN exists**

- Education users are charged about 38 percent of the cost to conduct video conferencing sessions.
- From FY 2002-FY 2010, lowa's schools and libraries have saved over \$32 million with ICN's involvement in the FCC's Universal Service Administrative Company (USAC) program.

### ICN services add to private sector revenues

- Over the years, almost \$150 million from the ICN budget paid for services from private sector providers.
- ICN's partnerships with the private telephone companies, as well as nontelecommunications providers, improve the way of life for lowa's citizens.



### Changing Lives With Iowa's Network

"We have students with 24/7 access to computers. We wanted to provide an unobstructed connection to the world," said Karl Hehr Technology / Curriculum Director at South Hamilton CSD. "We are a small rural school district, but don't feel our education should be limited to a small-rural school world view," Hehr added. South Hamilton CSD increased their ICN Ethernet circuit from 10 to 20 megabits.

- October 2010

Since 1996, Joan Arnett, with Iowa's Legislative Services Agency, has been utilizing the ICN to actively inform students about Iowa's government. Arnett said, "The ICN is a perfect way to reach those schools that are too far away to visit the Capitol, or their [school's] budgets don't allow them to visit."

- November 2010

Embracing ICN's video conferencing technology has enhanced Julie Navratil's curriculum by bringing field experts into her third grade classroom at Central Springs Elementary in Nora Springs, Iowa. "To be able to hear all kinds of people speak on different subjects, and be given the opportunity to discuss topics with people all over the state has deepened the learning using ICN's video conferencing," said Navratil.

- April 2011

The State Library of Iowa is able to fulfill its mission to provide statewide access to information for Iowans by utilizing ICN's services. The Internet access received from the ICN makes it possible for the State Library to provide its official website, the State Data Center, and the Iowa Center for the Book. These websites provide Iowans access to a wide range of resources from library catalogs, state government publications, census data, demographic information, and email references.

- FY 2010 State Library of Iowa Cost Savings Report



# From the Hill—FY 2011 Legislative Session

### **Equipment Appropriations:**

An appropriation of \$2.24 million was for the investment to ensure that the basic requirements are addressed regarding two different funding issues affecting the Network:

- Replacement of aging equipment, "end of life" equipment, or Network requirements.
- A state appropriation in order for the Network to receive Universal Service Fund dollars on behalf of schools and libraries.



### Request for Proposal (RFP) for Sale or Lease of ICN:

House File 45 requires the Iowa Telecommunications and Technology Commission to implement a request for proposal (RFP) process to sell or lease the ICN. The RFP is required to be concluded by June 2013\*. Successful bidders will allow existing authorized users to continue their use of services currently provided by the ICN at a lower overall long-term cost when compared to the anticipated operation and maintenance costs if state ownership and administration continued.

\* Date changed in House File 646

#### **Waivers for Certain Certified Users:**

House File 254 requires that independent colleges, universities, and private schools are no longer required to request a waiver from the Iowa Telecommunications and Technology Commission to purchase telecommunications services from providers other than the ICN. In 1994, Area Education Agencies and both public and private institutions of higher education, that were connected to the ICN, were required to certify that they would use ICN telecommunications services. A waiver process for the requirement was necessary at that time.

#### Flexibility on ICN Spending Cap for Federally Funded Broadband Project (BTOP):

The ICN Network received a Federal Grant of \$16.2 million that will in part fund the provision of up to one gigabit per second symmetrical Ethernet connections to over 3,000 Community Anchor Institutions in Iowa, including but not limited to schools, community colleges, libraries, and healthcare facilities. Currently, ICN must request authorization from the Legislature to enter into contracts over \$2.1 million. Due to several contracts for equipment that will exceed that amount, the Legislature (Senate File 209) authorized the agency to enter into the larger contracts tied to the federal BTOP project.



### Fiscal Year 2011—Financial Information

#### **Contracts:**

Below are the contracts entered into by the Iowa Communications Network exceeding \$1 million during Fiscal Year 2011 as required by the Code of Iowa, Chapter 8D.13(3)(f).

- 10-056 Walker & Associates ADVA DWDM
- 10-075 Fiberutilities Group
- 10-104A Unite Private Networks
- 11-006A Unite Private Networks
- 11-010 AVI Systems Polycom infrastructure
- 11-012A Unite Private Networks
- 11-020A Unite Private Networks

### **Financial Information Included in the Following Pages:**

**Financial Charts** 

Statement of Net Assets

Statement of Revenues, Expenses and Changes in Equity

Statement of Revenues, Expenses and Changes in Net Assets

Statement of Cash Flows

Operating Budget Proposal



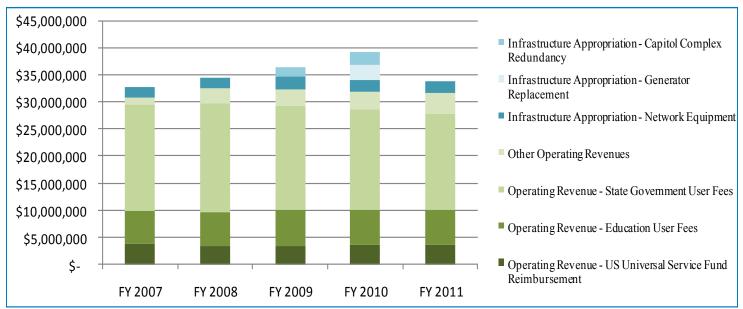


### **Financial Charts**

Unlike most state departments and agencies, the ICN operates with fee-based revenues rather than General Fund appropriations.

- A majority of the operating revenues have been realized from the Network's largest users, State Government Agencies.
- Capital asset revenues are appropriated from infrastructure funding sources such as the Technology Reinvestment
  Fund. This ensures ICN eligibility to receive a portion of the Universal Service Fund reimbursements on behalf of
  Iowa schools and libraries, a network infrastructure investment must be made by the State.

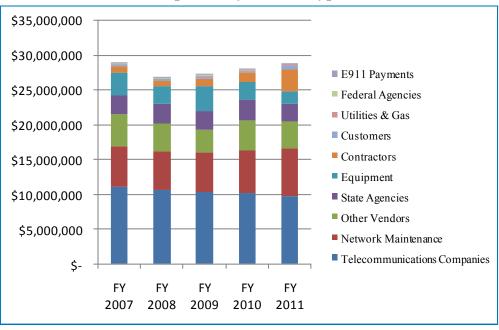
### **ICN Operating and Capital Asset Revenues**



The expenses demonstrate the monies that go from the State's Network, that are received as user fees, and then distributed.

- ICN relies on partnerships that have been created with various private sector companies to deliver services to authorized users. The largest percentage of ICN expenses is a result the "last-mile" connections. ICN also uses a private contractor for network maintenance.
- In many cases, the ICN is the broker that enables users to receive volume advantages that they would not receive otherwise.

### **Expenses by Vendor Type**





### IOWA COMMUNICATIONS NETWORK Statement of Net Assets As of June 30, 2011 (Unaudited)

### Assets

Current assets:		
Cash & Cash Equivalents	\$	8,483,251
Accounts Receivable, Net		4,987,129
Interest Receivable		5,425
Inventory	-	1,659,875
Total Current Assets		15,135,680
Unexpended appropriation		8,216,227
Unexpended BTOP Match		6,885,065
Noncurrent assets:		
Capital Assets, Net		16,714,927
Prepaid Expenses		400,455
Total Noncurrent Assets	<u>-</u>	17,115,382
Total Assets	\$	47,352,354
Liabilities Current liabilities:		
Accounts Payable	\$	5,450,423
Deferred Revenue	Ψ	240,095
Compensated Absences		816,500
Total Current Liabilities		6,507,018
Noncurrent liabilities:	85	
Deferred Revenue		2,620,651
Compensated Absences		789,408
Other Post-Employment Benefits		251,822
Total Noncurrent Liabilities	1	3,661,881
Total Liabilities		10,168,899
	A	340-240 (A. 190-20) (A. 190-20
Net Assets		
Invested in Capital Assets		16,714,927
Unrestricted	-	20,468,528
Total Net Assets	-	37,183,455
Total Liabilities and Net Assets	\$	47,352,354



# IOWA COMMUNICATIONS NETWORK Statement of Revenues, Expenses & Changes in Equity For the Fiscal Year Ended June 30, 2011 (Unaudited)

<b>Operating Revenues:</b>		
Sales, Rents, and Services:		
Voice Services	\$	8,127,488
Data Services		19,329,760
Video Services		3,024,992
Installation Services		710,885
Equipment Sales		595
Other Revenues		370,786
Total Operating Revenues, Gross		31,564,506
Bad Debt Expense	10-	(147,923)
Total Operating Revenues, Net		31,416,583
Operating Expenses:		
Direct Expenses:		
Voice Costs		3,086,678
Data Costs		6,852,076
Video Costs		341,600
Installation Costs		728,557
Total Direct Expenses		11,008,911
•	\ <u>\</u>	
Depreciation Expense	T-22	5,528,906
Other Operating Expenses:		
Network Equipment		1,996,896
System Maintenance		6,805,790
System Utilities Costs		74,427
Outside Plant Costs		1,468,959
System Repair Maintenance		233,416
Other System Costs		54,330
Network Installation Costs		712,413
Loss on Disposal of Capital Assets and Inventory	<u></u>	22,509
Total Other Operating Expenses	-	11,368,740
General & Administrative Expenses:		
Personnel		8,492,831
Travel		87,723
Administrative Services		336,568
Rent		111,729
Professional Fees		1,082,782
Other General & Administrative Expenses		102,129
Total General & Administrative Expenses		10,213,762
Total Operating Expenses		38,120,319
Operating Loss	\$	(6,703,736)



### IOWA COMMUNICATIONS NETWORK

### Statement of Revenues, Expenses & Changes in Net Assets For the Fiscal Year Ended June 30, 2011 (Unaudited)

Operating Revenues	
Sales, Rents, and Services	\$ 31,416,583
Operating Expenses	
Direct Expenses	11,008,911
Depreciation Expense	5,528,906
Other Operating Expenses	11,368,740
General & Administrative Expenses	10,213,762
Total Operating Expenses	38,120,319
Operating Loss	(6,703,736)
Non- Operating Revenues	
State Appropriations	2,244,956
Federal Grant	360,307
Investment Income	35,515
Total Non-Operating Revenues	2,640,778
Decrease in Net Assets	(4,062,958)
Net Assets Beginning of Year	41,246,413
Net Assets End of Year	\$ 37,183,455



#### IOWA COMMUNICATIONS NETWORK Statement of Cash Flows For the Fiscal Year Ended June 30, 2011 (Unaudited)

Cook flows from an austing a similar	
Cash flows from operating acivities:  Cash received from customers	\$ 34,119,300
Cash paid for goods and services	(23,315,004)
Cash paid for salaries and benefits	(8,369,904)
Net cash provided by operating activities	2,434,392
	2, 15 1,52
Cash flows from non-capital financing activities:	2 244 056
State appropriations  Net each provided by non-copital financing activities	2,244,956 2,244,956
Net cash provided by non-capital financing activities	2,244,930
Cash flows from capital and related financing activities:	
Acquisition and construction of capital assets	(2,811,419)
Capital contributions	360,307
Net cash used in capital and related financing activities	(2,451,112)
Cash flows from investing activities:	
Interest received on investments	62,710
Net cash provided by investing activities	62,710
Net increase in cash & cash equivalents	2,290,946
Cash and cash equivalents, beginning of year	21,293,597
Total cash and cash equivalents, end of year	\$ 23,584,544
Unexpended funds from State of Iowa capital appropriations	8,216,227
Unexpended funds for BTOP Match	6,885,065
Current cash and cash equivalents, end of year	\$ 8,483,251
Reconciliation of operating loss to net cash provided by operating activities:	
Operating income	\$ (4,458,780)
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation Expense	5,515,487
Loss on disposal of capital assets and inventory	22,509
(Increase) decrease in accounts receivable	1,168,729
(Increase) decrease in due from other state agencies	(802,971)
(Increase) decrease in due from federal agencies	(360,307)
(Increase) decrease in inventory	396,482
(Increase) decrease in prepaid expense	(48,065)
(Increase) decrease in deferred revenue	2,697,265
(Increase) decrease in State of Iowa capital appropriation	(2,244,956)
Increase (decrease) in accounts payable	676,740
Increase (decrease) in due to other state agencies	(250,670)
Increase (decrease) in compensated absences	122,927
Total adjustments	6,893,172
Net cash provided by operating activities	\$ 2,434,392



### IOWA COMMUNICATIONS NETWORK FISCAL YEAR ENDING JUNE 30, 2013 OPERATING BUDGET PROPOSAL

1		ľ	
			FY 2013
	FY 2012		Proposed
	Budget		Budget
REVENUES			
Voice Revenues	\$ 7,953,691		\$ 7,715,782
Data Revenues	20,077,266		20,873,950
Video Revenues	3,159,252		2,956,982
Installation Charges	867,500		867,500
Equipment Appropriation Request	2,248,653		2,248,653
Other Revenues	275,890		231,151
Gross Revenues	\$34,582,252		\$34,894,018
DIRECT EXPENSES			
Toll	289,562		279,718
Switched Access	1,182,565		1,139,194
Other Voice Direct Expenses	1,678,547		1,662,773
Data Circuit Expenses	7,107,536		7,214,260
Video Direct Expenses/Other expenses	347,008		323,324
Installation Expenses	489,500		489,500
Total Direct Expenses	\$11,094,718		\$11,108,769
Gross Margin	\$23,487,534		\$23,785,249
OPERATING EXPENSES			
System Maintenance and Technical Support	8,075,334		6,649,171
Outside Plant Expenses	1,358,660		1,313,665
Other Operating Expenses	1,095,942		1,220,386
Total Operating Expenses	\$10,529,936		\$ 9,183,222
Net Margin	\$12,957,598		\$14,602,027
GENERAL, SALES, AND ADMINISTRATIVE			
Personnel Services	9,043,026		9,680,078
Travel	184,200		177,910
Data Processing, ITE	290,763		290,747
Other Administrative Expenses	415,187		423,947
Professional Fees	1,202,000		1,437,000
Total G, S, and A Expenses	\$11,135,176		\$12,009,682
Net Cash (Deficit) from Operations	\$ 1,822,422		\$ 2,592,345
EQUIPMENT PURCHASES			
Network (Net)	1,822,422		2,592,345
Net Equipment Purchases	\$ 1,822,422		\$ 2,592,345
Net Cash (Deficit)	e		•
Nei Cash (Deficit)	\$ -		\$ -

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Redundant Internet Possibilities Video Infrastructure Voice

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