

Illinois Century Network

Policy Committee Meeting Agenda

April 19, 2010
1:00 p.m.



**ILLINOIS CENTURY NETWORK
POLICY COMMITTEE
MEETING AGENDA
April 19, 2010
1:00 p.m.**

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Next Meeting

**July 19, 2010
Illinois Community College Board, Springfield
James R. Thompson Center, Chicago**

ILLINOIS CENTURY NETWORK

January 25, 2010 POLICY COMMITTEE MINUTES

- Submitted for:** Action
- Summary:** Distribution of the October 26, 2009 minutes for review by the Policy Committee.
- Action Requested:** Adoption of the January 25, 2010 minutes.
- Recommended Motion:** The ICN Policy Committee adopts the October 26, 2009 minutes with any edits as noted.

ILLINOIS CENTURY NETWORK

January 25, 2010 POLICY COMMITTEE MINUTES

Greg Wass called the meeting to order.

Members present:

Greg Wass, Office of the Governor	Mike Dickson, Western Illinois University
Chet Olson, Mayor of Rochelle	Bonnie Styles, IL State Museums
Todd Jorns, IL Community College	Amy Edwards, IL Board of Higher Education

Staff and guests:

Lori Sorenson, Central Management Services	Kirk Mulvany, Central Management Services
Tom Oseland, Central Management Services	Kathleen Bloomberg, Illinois State Library
Robin Woodsome, Central Management Services	Jill Mehrberg, Commerce and Economic Opportunities
Melissa Camille, Central Management Services	John Barr, Commerce and Economic Opportunities
Deborah Kelley, Central Management Services	Carla Poani, AT & T
Jennifer Weisensee, Office of the Governor	

Announcements and Remarks

Greg thanked Bonnie Styles for chairing the last meeting while Greg was at the annual National Association of State CIO's meeting in Austin.

Greg reported he attended the regional meeting at College of DuPage which was well attended and included good discussion among the audience.

Greg mentioned that Kirk Mulvaney, Kevin Rademacher, and he will be traveling to Northwestern University to tour the Starlight GigaPOP and meet with staff to learn about activities taking place with advanced research networks.

There were no new business items to add to the agenda.

Minutes

Greg introduced the first item on the agenda, the approval of the minutes from October 26, 2009. Greg asked for a motion to approve the minutes. Chet Olson motioned that the minutes be approved. Mike Dickson seconded the motion. Motion carried.

State Broadband Mapping Grant

Lori Sorenson introduced Jill Mehrberg and John Barr with the Department of Commerce and Economic Opportunity (DCEO) who are overseeing the efforts to develop a state broadband map. John reported that Public Act 95684 providing funding and authorization to DCEO to contract with a non-profit organization to develop a map of broadband availability throughout Illinois. Through an RFP, DCEO contracted with Connect Illinois, a partnership consortium of Southern Illinois University, Management, Training, and Consulting (Man-Tra-Con), and Connected Nation (a national firm that does broadband mapping).

In mid 2009, the American Recovery and Reinvestment Act (ARRA) established a grant program to fund statewide broadband efforts. Through the Connect Illinois partnership, Illinois was awarded \$1.8 million for broadband mapping - \$1.3 million is for a mapping project and \$500K is for broadband planning activities for a two to five year period.

The immediate goal of Connect Illinois is to provide mapping data that will assist private and public entities interested in applying for US Department of Commerce and US Department of Agriculture broadband funds. Dates for the round two funding wave is February 16th through March 15th. DCEO anticipates releasing the first public version of the map by the end of January. The map will be available through the state's broadband web site www.broadband.illinois.gov.

The ARRA mapping grant established milestones regarding progress and completion of the broadband map. The February 15 milestone requires a certain percent of carriers to be included in the map. Connect Illinois is on track to meet the milestones. Greg suggested that Connect Illinois contact Dan Wilcox, GIS Coordinator with the Department of Transportation, regarding Illinois' GIS standards and interoperability.

Connect Illinois is in the process of hiring an Executive Director and securing office space in Springfield. To date, the major focus has been on broadband mapping; however, the focus will now evolve to working with community and other workforce professionals to create individual broadband plans. It is critical for this group to engage local partners.

DCEO is also leading the state's efforts to provide grant writing and financial assistance to public and private entities applying for ARRA broadband funding. Applications for state assistance are available on www.broadband.illinois.gov.

ARRA Broadband Funding Round Two

Lori provided a report on the status of the ICN's round one broadband application and plans for round two. ICN has not been contacted by Rural Utilities Service or National Telecommunications and Information Administration regarding its round one application. The rejection letters are due to come out this week. ICN plans to apply for round two which begins February 16th and closes March 15th.

Changes in round two include:

- Combining the last mile and middle mile infrastructure categories to a new category titled Comprehensive Community Infrastructure (CCI). Within the CCI category, the emphasis is placed on middle mile projects with connections to community anchor institutions.
- Emphasis on public/private partnerships.
- Prioritization for projects that include expanding broadband to community colleges.
- The use of census tracts or block groups instead of census blocks to define the service area.
- Minimum and maximums for the funding requests.
- Seven funding priorities for BTOP CCI projects.
- Prioritization for projects that provide a 30% local match.

Based on round one award announcements and the round two Notice of Funds Availability the overall project will be adjusted. ICN is looking at the community college locations with an eye to extending fiber connectivity to as many sites as feasible. Staff have been reaching out to round one winners to learn from their successes and to inform the strategy for the round two application.

Network Services Update

Kirk Mulvany provided an update on the network POP move from Illinois Consolidated Telephone Company (ICTC) central office to Eastern Illinois University (EIU). ICTC does not allow other carriers to bring connectivity into their central office resulting in less than desired network redundancy. All backbone connections coming in to that POP location are brought into ICTC's Mattoon central office and then transported to Charleston by ICTC. Staff are working closely with ICTC and EIU to turn-up the POP site and plan for the transition of constituent connections to the new location.

Kirk reported that Network Services staff are working with the K-12 community to establish an educational computing cloud (Illinois Cloud). In the last few years Bloomington/Normal schools have established a shared data center to

consolidate resources and provide cost saving redundancy. Building upon that, a K-12 team of school district technology directors along with the Area 5 Learning Technology Center have developed a model and plan to expand the education cloud statewide. In order to be successful, the project requires a large amount of bandwidth between the data centers for redundancy and robust network connectivity between the participating schools and the cloud. The ICN backbone is designed to support these exact types of applications. Staff are working with the Illinois Cloud project leaders to provide bandwidth between the data centers and schools that will be participating in an four to six week pilot project.

Greg suggested that Central Management Services Shared Services team and the Illinois Cloud team communicate to learn from each other's successes.

E-rate

Tom Oseland reported that e-rate reimbursements for funding year 2008 total \$464,777 and he recently received news that an additional \$334,000 will be released this week. The delay in approving the funding was related to the state master contract renewal. This affected both the funding year 2008 and funding year 2009 applications; however, Tom has worked with the reviewer regarding the 2009 application. As a result, changes have been approved to prevent similar delays with the 2009 application approval process.

ICN is working on the funding year 2010 application with is due February 11th. Tom reported ICN is looking at a new method for determining eligible costs. Currently, ICN conducts a complex analysis of network bandwidth used by e-rate eligible entities. This approach is time consuming to calculate prior to the application and complicates the program audits. This methodology will also result in a significant increase in our reimbursement requests. Tom did contact the past program auditors and while they cannot provide any pre-approval or endorsement the reaction was positive and they agreed in theory with the proposed methodology.

Regional Meetings

Robin provided the final report on the regional meetings held last October. The two top discussion topics where the dark fiber plans and constituent impact and the current cost recovery model, especially the current baseline bandwidth levels. The meeting agenda followed the same format as last year which included a presentation followed by group discussion among participants. An online survey of meeting participants included mostly positive feedback. Suggestions included holding separate meetings for state agencies verses the educational customers, more frequent communication from ICN and improvements to the content filtering solution.

Greg requested a motion to adjourn the meeting. Kathy Bloomberg motioned to adjourn the meeting. Chet Olson seconded. The motion carried.

ILLINOIS CENTURY NETWORK

ARRA Broadband Funding Round 2

Submitted for: Information

Summary:

Action Requested: None

Broadband Technology Opportunities Program Round Two Application

The Round Two Broadband Technology Opportunities Program (BTOP) Comprehensive Community Infrastructure application was submitted on March 26. According to the National Telecommunications and Information Administration website application database, 867 applications were filed for Round Two BTOP funds, a decrease from Round One which included 1,789 BTOP applications. Round Two applications are divided among three project categories:

- 355 Comprehensive Community Infrastructure (CCI) applications requesting approximately \$8.4 billion in grant funding. NTIA has allocated approximately \$3.35 billion for CCI projects.
- 251 Sustainable Broadband Adoption (SBA) applications requesting approximately \$1.7 billion in grant funding. NTIA has allocated approximately \$100 million for SBA projects.
- 261 Public Computer Center (PCC) applications requesting approximately \$922 million in grant funding. NTIA has allocated approximately \$150 million for PCC projects.¹

Based on feedback received from the NTIA, the Governor's Office assembled a small working group to develop a framework to foster and support regional collaborations for CCI projects. The working group identified fiber-based CCI projects based on requests for state financial assistance and encouraged applications within the same geographical area to collaborate on developing a single application. As a result four areas submitted a single application (Northwest, Western, Southern and East/Central). The Northeast area comprised of Chicago and surrounding communities where unable to collaborate on a single application; however, they were successful in identify synergies and avoiding redundancy in coverage areas.

The ICN collaborated with the Central Illinois Regional Broadband Network (CIRBN) to develop and submit the East Central regional application – Illinois Broadband Opportunity Partnership – East Central (IBOP-EC) Region. CMS is the lead applicant and will focus on building fiber the community colleges and network POP sites within 55 counties. A key component of the proposal is a community-driven initiative to extend broadband connections to 241 anchor institutions in McLean, Woodford, Livingston, Logan, Piatt, and DeWitt counties. Led by Illinois State University, the CIRBN project builds fiber in a number of communities and has developed a governance structure to ensure the long term viability and expansion of the network.

The IBOP-EC fiber-optic network will connect 3,138 anchor institutions, including 21 community colleges across 55 counties in the eastern, central and northern portions of Illinois. The network will support speeds ranging from 10 Mbps (about 2 to 3 times faster than the typical residential broadband offering) to 10 Gbps. Residential broadband service providers will be able to affordably extend their services into unserved or underserved communities with a potential to reach an additional 5,861 community anchors, 285,410 businesses and 3,931,975 households. Nine third-party service providers have provided letters of intent to use this project's middle-mile infrastructure and discussions continue with additional providers.

The project combines the strengths of five regional fiber-optic networks, and many community proposals, to provide a comprehensive statewide broadband infrastructure. Collectively, the projects will directly connect all 48 community colleges to the Illinois Century Network. The projects will interconnect networks and share fiber infrastructure, providing network redundancy, while also avoiding duplication.

A complete copy of the IBOP-EC executive summary has been included and will be posted on the ICN website. Round Two award recommendations are expected to be announced in summer 2010.

¹ A breakdown on the Round Two applications is taken from an April 7, 2010 online posting on Stimulating Broadband.com.

Illinois Broadband Opportunity Partnership – East Central Region Executive Summary

Opportunity the proposed system seeks to address:

Broadband service in many communities across the State of Illinois is often limited in coverage, bandwidth constrained, or priced beyond the means of many organizations. Broadband is frequently limited to 1-2 Megabits per second (Mbps) per facility in many rural communities. Yet our community anchor institutions need to leverage broadband to enhance the delivery of their services, lower operational costs, and improve the quality of their offerings. They lack affordable access to high speed broadband services capable of supporting everyday 21st Century applications. More schools are moving to online learning. Healthcare increasingly needs to use sophisticated health IT records. Public safety requires enhanced 911. Rural communities need broadband connectivity to seek and retain businesses and people that drive economic growth. For all of these purposes, bandwidth-intensive applications require stable, synchronous connections with quality-of-service guarantees. Current broadband services are asynchronous, best-effort solutions. The fiber infrastructure will interconnect with the Illinois Century Network (ICN), the State's educational network. The ICN is an Internet2 Sponsored Educational Group Provider, which is the gateway for K-12 schools, libraries, and non-research higher education institutions to access Internet2.

The Illinois Broadband Opportunity Partnership - East Central Region (IBOP-EC) fiber-optic network will connect 3,138 anchor institutions, including 21 community colleges across 55 counties in the eastern, central and northern portions of Illinois. The network will support speeds ranging from 10 Mbps (about 2 to 3 times faster than the typical residential broadband offering) to 10 Gbps. Residential broadband service providers will be able to affordably extend their services into unserved or underserved communities with a potential to reach an additional 5,861 community anchors, 285,410 businesses and 3,931,975 households. Nine third-party service providers have provided letters of intent to use this project's middle-mile infrastructure and discussions continue with additional providers.

The project combines the strengths of five regional fiber-optic networks, and many community proposals, to provide a comprehensive statewide broadband infrastructure. Collectively, the projects will directly connect all 48 community colleges to the Illinois Century Network. The projects will interconnect networks and share fiber infrastructure, providing network redundancy, while also avoiding duplication. A key component of the proposal is a community-driven initiative to extend broadband connections to 241 anchor institutions in McLean, Woodford, Livingston, Logan, Piatt, and DeWitt counties. Led by Illinois State University, the Central Illinois Regional Broadband Network (CIRBN) project builds fiber in a number of communities and has developed a governance structure to ensure the long term viability and expansion of the network. The CIRBN model can easily be replicated in more communities in the future.

IBOP-EC will leverage existing state assets to maximize the reach and impact of the proposed network. The Illinois Department of Transportation and the Illinois State Toll Highway Authority are providing access to existing fiber. The Illinois Century Network has existing network facilities, many located on university campuses, throughout the state that can be used for the optical equipment and network access points. The Illinois Department of Transportation has pledged its assistance in expediting the permitting of rights-of-way to ensure the project is completed as quickly as possible – and providing community anchor institutions with timely access to broadband.

General description of the proposed funded service areas:

Forty-seven of the 55 counties in the proposed service area are underserved with residential broadband subscriptions less than 40%. Thirteen counties are economically distressed with above average unemployment rates and low median incomes.

Number of households and businesses passed:

The proposed funding service areas includes: 3,931,975 households and 285,410 businesses.

Number of community anchor institutions passed and/or involved with project:

The proposed network will pass 8,999 community anchor institutions of which 3,138 will be directly connected including 1,143 K-12 schools, 21 community colleges, 189 higher education institutions, 58 healthcare facilities, 294 libraries, 106 public safety entities and 1,327 other sites This project includes the active participation of and matching funds from 41 partners, including 19 K-12 school districts, 1 community college, 2 higher education institutions, 10 municipal and public safety entities, 8 commercial organizations, 2 healthcare organizations, 1 non-profit organization, and the State of Illinois.

Proposed services and applications for the proposed funded service areas and users:

The proposed network will provide broadband speeds ranging from 10 Mbps to 10 Gbps, as well as leasing dark fiber and wave services for businesses and third-party service providers. The network will provide access to the Internet, private peering points, Internet2 and the National Lambda Rail. Nine commercial service providers have already provided letters of intent to use the middle mile infrastructure to deliver broadband services to residents and businesses throughout the service area.

Approach to addressing the non-discrimination and interconnection obligations:

The network includes 322 interconnection points ensuring easy access for third-party services providers. IBOP-EC fully embraces the non-discrimination and interconnection obligations and has designed the network and service offerings accordingly. IBOP-EC will make all elements of the network available to other service providers including dark fiber, wave services, and point-to-point Ethernet services.

Type of broadband system that will be deployed:

The backbone network is designed as a DWDM architecture operating over a combination of new, existing and leased fiber spanning 2,248 miles. New fiber construction consists of 144 strands of single mode fiber covering approximately 1,026 miles. Existing fiber covers 1,096 miles and includes 4 or more strands of single-mode fiber. Leased fiber covers 126 miles. Within the Central Illinois Regional Broadband Network (CIRBN) metropolitan area the network design includes 288 strands of single mode fiber due to the higher node density found in metro environments.

Qualifications of the applicant that demonstrate the ability to implement and operate a broadband infrastructure, and/or be a sustainable system: Central Management Services (CMS) has been providing broadband services to more than 7,000 community anchor institutions for more than 10 years via the ICN. The ICN is an internet protocol network running multi-protocol label switching with 15 points-of-presence. Through the Illinois Broadband Opportunity Partnership, the State of Illinois has assembled a team of fiber and broadband resources to assist with the network design and implementation. Collectively, these resources have installed and operated more than 1,000 miles of fiber. These fiber experts include representatives from the Illinois State Toll Highway Authority, Northern Illinois University, University of Urbana-Champaign, Illinois State University, Metropolitan Research & Education Network, and I-WIRE. The CMS and ISU operations include a team of network engineers and a 24x7 network operations center to manage the project implementation and ongoing operations. CMS has established back office systems to support ordering, billing, inventory, and technical support operations. Once implemented, Illinois State University and the founding members of CIRBN plan to form a non-profit, Limited Liability Company to assume ongoing operations of the community fiber network.

Overall infrastructure costs of the broadband system:

Total project cost is \$96,382,028. IBOP-EC is providing a cash match of \$30,538,950 or 31.69% and \$3,947,796, or 4.1%, as an in-kind contribution; for a total local match of \$34,486,746, or 35.79%. More than 40 partners have contributed to the local match.

Overall expected subscriber projections:

The estimated number of direct subscribers by year eight is 3,377 community anchor institutions, 127 businesses, and 61 third-party service providers.

Number of jobs estimated to be created or saved:

According to a report released by the Council of Economic Advisers, Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009, we estimate the proposed project will create 1,057 job years which can be further broken out into 676 direct and indirect jobs and 381 induced jobs.

ILLINOIS CENTURY NETWORK

E-Rate Update

Submitted for: Information

Summary:

Action Requested: None

ILLINOIS CENTURY NETWORK

E-RATE UPDATE

Recently, \$334,473 in approved funding which was being held at USAC review pending their decision regarding the status of the State of Illinois' master contract for network services was approved for disbursement. Paperwork has been completed and submitted to USAC for the release of these funds. Once processed, and barring any delays, the funds should be received by CMS in approximately 30 days.

The chart below summarizes E-Rate funding activity and status for each funding year application.

E-Rate Activity

Funding Year	Received	Approved – Not yet received	Applied for Not yet approved	Under Appeal
Year 3 (2000)	\$2,137,765	-0-	-0-	N/A
Year 4 (2001)	\$2,179,728	-0-	-0-	\$2,274,232 ²
Year 5 (2002)	\$4,996,227	-0-	-0-	N/A
Year 6 (2003)	\$4,644,171	-0-	-0-	N/A
Year 7 (2004)	\$2,497,427	-0-	-0-	\$393,338 ³
Year 8 (2005)	\$2,424,567	-0-	-0-	N/A
Year 9 (2006)	\$982,392	-0-	-0-	N/A
Year 10 (2007)	\$947,048	\$6,495	-0-	N/A
Year 11 (2008)	\$464,777	\$334,473	-0-	N/A
Year 12 (2009)	N/A	\$1,542,319	-0-	N/A
Year 13 (2010)	N/A	N/A	\$3,591,166	N/A
Totals	\$21,274,102	\$1,883,287	\$3,591,166	\$2,667,570

The ICN 2009 E-Rate application was approved on February 9, 2010 for a total of \$1,774,418. The figure in the above table represents more closely what will actually be received in funding reimbursements for the 2009 E-Rate funding year.

The ICN 2010 E-Rate application was completed and submitted on February 18, 2010. Funding requests total approximately \$3,591,166. This figure is significantly higher than in recent years due to an alternate methodology used to determine the level of ICN services eligible for E-Rate support. The application is in the initial stages of review.

² The probability of receiving this funding request is almost non-existent. Denial was based on the expiration of a master contract during the funding year.

³ This remaining amount under appeal is related to the ICN Year 7 Library application. For unknown reasons, the FCC did not include this application in their decision to grant the ICN appeal of denied funding for the School application.