Illinois Century Network

Policy Committee Meeting Agenda

October 19, 2015
1:00 p.m.

ILLINOIS CENTURY NETWORK
POLICY COMMITTEE
MEETING AGENDA
OCTOBER 19, 2015
1:00 p.m.

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Next Meeting -TBD

ILLINOIS CENTURY NETWORK
JULY 20, 2015 POLICY COMMITTEE MINUTES

Submitted for:	Action
Summary:	Distribution of the July 20, 2015 minutes for review by the Policy Committee.
Action Requested:	Adoption of the July 20, 2015 minutes.
Recommended Motion:	*The ICN Policy Committee adopts the July 20, 2015 minutes with any edits as noted.*

ILLINOIS CENTURY NETWORK
JULY 20, 2015 POLICY COMMITTEE MINUTES

Hardik Bhatt called the meeting to order at 1:06 p.m.

Members Present (Springfield):

Lori Sorenson, Central Management Services	Anne Craig, Illinois State Library
Bonnie Styles, Illinois State Museum	Todd Jorns, Illinois Community College Board
Eric Lichtenberger, Board of Higher Education	Michael Dickson

Members Present (Chicago):

Hardik Bhatt, Central Management Services	

Members on Audio Bridge:

Chet Olson	Tom Steele
Brent Engelman, State Board of Education	

Members Absent:

Vicki DeWitt	

Staff and Guests:

Essam El-Beik, Central Management Services	Tom Oseland, Central Management Services
Robin Woodsome, Central Management Services	Carla Poani, AT&T
Valerie Bolinger, Central Management Services	Judy Hessler, Central Management Services

Announcements and Remarks
Hardik Bhatt welcomed the board and thanked everyone for attending.

Minutes
Hardik Bhatt introduced the first item on the agenda, approval of the minutes from the April 20, 2015 meeting. A motion was made by Mike Dickson to accept the minutes. The motion was seconded by Anne Craig. The motion carried.

E-rate
Tom Oseland reported the 2014 E-rate funding year ended on June 30, 2015. Claim forms were being prepared for the final three months of the funding year, April through June, to recoup invoicing discounts given to ICN customers based on their approved E-rate funding. Invoicing discounts claimed for reimbursement through this process totaled approximately $232,162 for the first nine months of the funding year. In addition, several schools/districts have submitted reimbursement claims for E-rate funds totaling approximately $30,267. Now that the funding year has ended, there will be several more claims submitted by schools that have been paying invoices for ICN services in full and will utilize the "BEAR" process to request reimbursements based on approved E-rate funding.

The 2015 E-rate funding year began on July 1, 2015. A total of 369 applications were submitted that listed ICN as the service provider. This is a significant increase over the past two years. To date, a total of 68 of these applications have been approved. The approved applications represent a total of approximately $668,110 in ICN services supported by approximately $446,128 in E-rate funds. There are many more applications to be reviewed and it is expected that the majority of them will be approved for funding.

Hardik inquired about the percentage of approved applications. Tom responded that it is well over 90 percent. Robin commented that the RTC's are reaching out to the K-12 schools that are within vicinity of our network

fiber. They are providing information/solutions to extend fiber to their premise. Eric Lichtenberger inquired about the number of schools that are within our network fiber. Essam stated that there are a little over 100 schools within vicinity of our network fiber.

Essam El-Beik reported on the ICN response to the FCC Eligible Service List (ESL) and stated that the ESL provides guidance on the eligibility of products and services under the E-rate program. The ICN submitted a response requesting clarification on costs associated with fiber and special construction as well as provide recommendations. Essam asked members to view page nine of the packet to review the recommendations.

Essam stated that statewide master contract/request for proposals for E-rate Category 2 is ready for public release. Category 2 allows schools and libraries to receive equipment (routers, switches, wireless access points, i.e. all the equipment they may need in a school or library to support broadband). The contract will make it easier for schools and libraries to order equipment via the E-rate process. ICN customers will have the ability to select a vendor from the master contract and submit their E-rate 471 form to receive funding. The goal is to simplify the process for schools and libraries thus encouraging more organizations to apply for category 2 E-rate funding. Lori commented that the FCC approved all E-rate Category 2 submissions for the current E-rate funding year.

Budget Update
Lori reported on this item and referred the board members to page 11 of the packet. Discussion held regarding budget concerns, cutting costs and how to generate revenue. Hardik stated that we cannot continue to sustain this deficit and opened the floor for ideas. Committee members directed staff to continue to seek revenue growth opportunities.

DWDM Ethernet Pricing Proposal
Lori reported on this item and referenced page 13 of the meeting packet. The rate changes approved in October 2014 included a reduction in the rates for 10 Gbps Ethernet point-to-point services for wholesale service providers. The proposed rate changes inadvertently omitted a corresponding rate change for the community anchor institutions (CAI). Staff recommends a rate change to the CAI 10 Gbps Ethernet point-to-point service. Staff also recommends a minimum twelve month commitment for the CAI 1 and 10 Gbps Ethernet point-to-point services. Staff also recommends simplifying the 1 Gbps Ethernet circuit pricing by combining the monthly recurring cost and annual port fee into a single monthly cost for CAI and service providers. A motion was made by Mike Dickson to accept the DWDM Ethernet Pricing Proposal. The motion was seconded by Tom Steele. The motion carried.

Advanced Engineering Task Force Membership
Lori reported on this item. The Advanced Engineering Taskforce (AET) works with ICN staff to develop network operations policies, services and rate recommendations, and plan for new technology. The membership matrix on pages 16 and 17 reflects current AET membership and attendance. The AET is seeking reappointments for eight members whose terms will expire in June 2015. The new three year terms would extend through 2018. A motion was made by Anne Craig to approve the renewal of those individuals whose term expired June 20, 2015. The motion was seconded by Todd Jorns. The motion carried.

Broadband Opportunity Council Update
Essam reported that President Obama signed a Presidential Memorandum formally creating the Broadband Opportunity Council and appointed co-chairs. The council includes federal agencies and departments that will engage with industry and other stakeholders to understand ways that the government can better support communities in seeking broadband investment. In addition, the council issued a Request for Comment (RFC) asking for public input to identify regulations and barriers hampering the deployment of broadband. CMS led the effort to develop the State of Illinois response with input from state agencies. A copy of the response can be viewed on the ICN website.

Other Items
Hardik recommended that we move the meeting day to the second Tuesday of the month for the 2016 ICN Policy Committee Meeting schedule. Hardik stated that he would like to attend the meetings in person and is unavailable to attend on Mondays in Springfield. It was decided to leave the October 19 meeting as scheduled and set the 2016 meeting schedule on the second Tuesday of the month. The 2016 meeting schedule will be an action item at the October meeting.

Adjourn
Hardik moved to adjourn the meeting. Motion by Bonnie Styles and seconded by Anne Craig. Motion passed and meeting adjourned at 1:59 p.m.

The next meeting will be October 19, 2015 at the Illinois Community College Board in Springfield, the JRTC in Chicago or via audio bridge.

ILLINOIS CENTURY NETWORK
E-RATE UPDATE

Submitted for:	Informational
Summary:	This item provides an update on ICN E-rate funding requests.
Action Requested:	None
Recommended Motion:	*None*

ILLINOIS CENTURY NETWORK

E-RATE UPDATE

Although the 2014 E-rate funding year ended over 3 months ago, there remain some applicants that continue to submit the Form 472 "BEAR" reimbursement claim form for costs associated with ICN services. To date, a total of $197,103.07 has been claimed via this process. Along with that, ICN reimbursement claims via the Service Provider Invoice (SPI) have reached a total of $320,498.62. Both processes continue until the invoicing deadline of October 28th is reached. ICN reimbursement claims are essentially all completed but not all funds have been received.

There was a total of 370 applications submitted that listed ICN as service provider for the 2015 E-rate funding year. As of this writing, a total of 341 of these applications have been approved to receive funding support. These represent a total of approximately $3.6 million in ICN services supported by almost $2.2 million in E-rate funds. These numbers, of course, represent a significant increase over the 2014 funding year. There were multiple E-rate applicants seeking funding support for ICN services due to the discontinuation of the state allocation. ICN customers that had previously utilized this funding to cover the costs of ICN service must now claim reimbursement for these expenses through the E-rate program. Now that the new E-rate Modernization Order has been enacted and put into motion, it can be expected that the number of E-rate applicants claiming support for ICN services will continue to grow.

The chart below summarizes activity for the ICN as a service provider in the E-rate program beginning with the 2013 funding year; the first year in which ICN participated as an Internet service provider.

Service Provider Activity

Funding Year	Total apps listing ICN	Total apps approved for funding (to date)	Total dollar amount approved(to date)	Total dollar amount claimed for support (to date)
Year 16 (2013)	117	107	$1,252,008	$265,630
Year 17 (2014)	162	155	$1,895,920	$320,499
Year 18 (2015)	370	341	$3,602,553	-0-
Totals	N/A	N/A	**$6,750,481**	**$586,129**

The chart below summarizes ICN E-rate application history for each funding year up to 2012.

Applicant Activity

Funding Year	Received
Year 3 (2000)	$2,137,765
Year 4 (2001)	$2,522,559
Year 5 (2002)	$4,996,227
Year 6 (2003)	$4,644,171
Year 7 (2004)	$2,497,427
Year 8 (2005)	$2,424,567
Year 9 (2006)	$982,392
Year 10 (2007)	$953,998
Year 11 (2008)	$799,251
Year 12 (2009)	$1,339,032
Year 13 (2010)	$2,982,199
Year 14 (2011)	$2,561,151
Year 15 (2012)	$2,520,377
Totals	**$31,361,116**

ILLINOIS CENTURY NETWORK

ELIGIBLE SERVICES LIST FOR E-RATE FUNDING YEAR 2016

On September 11, 2015, the Federal Communications Commission (FCC) released the Eligible Services List (ESL) for E-rate funding year 2016 accessible at: http://www.usac.org/_res/documents/sl/pdf/ESL_archive/EligibleServicesList-2016.pdf. This document updates the ESL taking into account the second E-rate modernization order released in December 2014. The document also clarifies ambiguities in the E-rate modernization order and answers questions raised by CMS and other commenters.

The ESL clarifies the definition of special construction as those activities only related to actual construction of network. Special construction does not include one-time upfront charges for dark fiber IRU's or electronic equipment. This is in line with the emphasis by the FCC on investment in new fiber networks versus paying a high monthly fee for on-going service. One time upfront charges for dark fiber and electronic equipment would still be eligible for Category 1 funding but not special construction funding. This distinction is important because special construction funding is eligible for an additional FCC contribution and the school match portion of special construction costs can be paid over 4 years.

Another important clarification is that operations and maintenance is an eligible E-rate expense for school networks that have already been built, or for school networks consisting of dark fiber IRU's that have already been purchased. The operations and maintenance functions would be eligible as Category 1 services, and as per standard E-rate rules, have to be competitively bid.

The ESL clarifies that basic Firewall services provided as part of Internet access is eligible under Category 1 funding but that Firewall services provided by another vendor or priced out separately is considered eligible for Category 2 funding.

The ESL clarifies that solutions that virtualize eligible Category 2 components, for example routing, switching, controller and firewall functionality are eligible for Category 2 funding support. Other minor clarifications and edits are listed in the ESL, available at the link above.

ILLINOIS CENTURY NETWORK
BROADBAND OPPORTUNITY COUNCIL REPORT

Submitted for:	Informational
Summary:	This item provides an update regarding the Broadband Opportunity Council Report and Recommendations.
Action Requested:	None
Recommended Motion:	*None*

ILLINOIS CENTURY NETWORK

BROADBAND OPPORTUNITY COUNCIL REPORT

On March 23, 2015, President Obama signed a Presidential Memorandum formally creating the Broadband Opportunity Council and appointing the Commerce and Agriculture Departments as co-chairs. The Broadband Opportunity Council includes 25 federal agencies and departments that, over the past several months, have engaged with industry and other stakeholders to understand ways the government can better support the needs of communities seeking broadband investment. The Council has also identified regulatory barriers unduly impeding broadband deployment or competition, and was tasked with removing such barriers.

The Councils work included issuing a Request for Comment (RFC) allowing the public to provide input to the process. CMS managed the collation of Illinois State agency input and a response to the RFC was submitted by the Office of the State Chief Information Officer.

On August 20, 2015, the Council provided a report to the President and this report was released to the public on September 21, 2015. The report can be found at: http://www.ntia.doc.gov/report/2015/broadband-opportunity-council-report-and-recommendations and provides a set of recommendations with timeframes for Federal agencies to follow.

The Council made recommendations in four areas where Federal actions can strengthen broadband deployment, foster competition and promote broadband adoption:

1. Modernize Federal programs to expand program support for broadband investments.
2. Empower communities with tools and resources to attract broadband investment and promote meaningful use.
3. Promote increased broadband deployment and competition through expanded access to Federal assets.
4. Improve data collection, analysis and research on broadband.

The report describes 36 immediate actions, with associated milestones, that federal agencies have committed to undertake. In order to ensure that these recommendations are implemented in a timely and transparent fashion, agencies will provide regular updates to the Council Steering Committee which will monitor progress and report periodically to the National Economic Council.

ILLINOIS CENTURY NETWORK
SMART CITIES UPDATE

Submitted for:	Informational
Summary:	This item provides an update regarding Smart Cities.
Action Requested:	None
Recommended Motion:	*None*

ILLINOIS CENTURY NETWORK

SMART CITIES REPORT

Background

On September 14, 2015, the White House launched a Smart Cities initiative to coincide with Smart Cities Week and issued a Fact Sheet detailing awards being made available for the advancement of Smart City technology in the US.

The initiative invests over $160 million in Federal research that includes:

- More than $35 million in new grants and over $10 million in proposed investments to build a research infrastructure for Smart Cities by the National Science Foundation (NSF) and National Institute of Standards and Technology (NIST).
- Nearly $70 million in new spending and over $45 million in proposed investments to unlock new solutions in safety, energy, climate preparedness, transportation, health and more, by the Department of Homeland Security, Department of Transportation, Department of Energy, Department of Commerce, and the Environmental Protection Agency.
- More than 20 cities participating in major new multi-city collaborations that will help city leaders effectively collaborate with universities and industry.

Most of the awards referenced have their funding already allocated however additional funding opportunities will be available from NSF, NIST and the other federal agencies. For example there was notice in the Fact Sheet of a Dear Colleague letter from the NSF announcing availability of additional funding for high risk – high reward Smart City projects.

ICN Activity

ICN is exploring partnership with cities, universities and commercial companies to advance the state of Smart City technology and applications in Illinois. Initial activity of ICN is expected to be one to three pilots exploring and researching the benefits of Smart City technologies and applications. This activity will include applying for any available grants from the Federal government including NSF, NIST or other agencies.
While the specific application is not known at this stage, ICN would like to pilot with projects that, taken together, have at least the following attributes:

- Collaboration between Cities, enabled by ICN fiber
- Shared services between Cities
- Large data transfer requirements
- A mobile technology component

Smart City technology and applications are typically involved with improving the quality of life of residents by helping local communities tackle key challenges such as reducing traffic congestion, fighting crime, fostering economic growth, managing the effects of a changing climate, improving healthcare and improving the delivery of city services. An Illinois pilot application is likely to be from one of these fields.

Next Steps

Discussions will take place with City planners, university researchers, industry and the American Planning Association to formulate and execute 1 to 3 Smart City projects in 2016. Grants from organizations such as the NSF/NIST and/or other federal agencies will be applied for.

ILLINOIS CENTURY NETWORK
K12 BROADBAND INITIATIVE

Submitted for:	Informational
Summary:	This item provides an update regarding the K12 Broadband Initiative.
Action Requested:	None
Recommended Motion:	*None*

ILLINOIS CENTURY NETWORK

K-12 BROADBAND INITIATIVE

The State of Illinois is teaming with Education Superhighway to assess the current K-12 broadband connectivity and develop and implement a plan to connect every school via fiber. Education Superhighway is a philanthropic supported nonprofit organization focused on improving Internet access in K-12 schools. Education Superhighway provides this free consultation to the states providing a clear commitment and support from the Governor's office and state leadership.

The Governor's Office, Illinois State Board of Education, and Central Management Services will be working directly with Education Superhighway to develop clear recommendations and potential next steps for leveraging the current infrastructure and federal E-rate funds to connect every K-12 school to fiber and the networks within schools to support high speed wireless connections

ILLINOIS CENTURY NETWORK
ICN PROPOSED RATES & SERVICES

Submitted for:	Action
Summary:	This item proposes updated ICN Services for Multi-Year Contracts [Action, End to End Services [Action], Membership [Informational].
Action Requested:	That the Policy Committee approve the adoption and implementation of the listed services and pricing for Multi-Year Contracts and End to End Services.
Recommended Motion:	*The Policy Committee approves the adoption and implementation of the listed new services and pricing for Multi-Year Contracts and End to End Services.*

Illinois Century Network

ICN Recommendations for Advanced Engineering Task Force Meeting

v1.0

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- Multi-Year Contracts
- End to End Service
- Membership

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Multi Year Contracts

- Multi Year Contracts
  - In addition to month to month contracts, ICN will offer contracts with terms of 1, 3 and 5 years
  - 3 and 5 year term contracts will result in an up front price discount. 1 year term contracts have no price discount
    - 1 year – 0%
    - 3 years – 5%
    - 5 years – 10%
  - Customer is locked into the contract for both the contracted price and the term. Customer does not benefit from any ICN price reductions during the term since customer already had a price reduction upfront
    - This will be explicitly disclosed in the service order for the term
  - Customer termination of 3 and 5 year contract mid term results in early termination penalties
    - Equal to (½ of remaining term) x monthly fee
- Benefits
  - Multi year contracts mean schools and libraries do not have to rebid their required service each year via form 470.
    - Significantly reduces administrative burden on both schools and ICN
    - Locks customer with ICN for the contract period
    - During E-rate season allows ICN to focus on other customers for new revenue opportunities

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Multi Year Contracts

- Pricing
  - Pricing with discounts for 3 and 5 year terms is shown below

3 Year Term Discount	5 Year Term Discount
5%	10%

Illinois Century Network Internet Service Pricing					
Service Level	Rate Per Mbps	Monthly Recurring	12 Month Term	36 Month Term	60 Month Term
10 Mb	$ 14.00	$ 140.00	$ 140.00	$ 133.00	$ 126.00
20 Mb	$ 12.00	$ 240.00	$ 240.00	$ 228.00	$ 216.00
50 Mb	$ 9.00	$ 450.00	$ 450.00	$ 428.00	$ 405.00
100 Mb	$ 6.00	$ 600.00	$ 600.00	$ 570.00	$ 540.00
200 Mb	$ 5.50	$ 1,100.00	$ 1,100.00	$ 1,045.00	$ 990.00
500 Mb	$ 5.00	$ 2,500.00	$ 2,500.00	$ 2,375.00	$ 2,250.00
1,000 Mb	$ 4.50	$ 4,500.00	$ 4,500.00	$ 4,275.00	$ 4,050.00

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End to End Service

- End to End Service
  - ICN to offer end to end lit service to schools and libraries
  - ICN already provides end to end service to State agency locations. Customers to be added to the ICN end to end lit service offering.
  - We will make available in the E-rate form 470 responses the End to End service as well as our standard Internet Egress service from an ICN POP
- Benefits
  - Allows the school or library to order service by working with just one provider (ICN)
  - When issues arise, the school or library will no longer have to work with and coordinate between multiple providers. Issue resolution will be the responsibility of ICN. ICN will work with the last mile provider as necessary.
  - Makes E-rate administration easier for schools and libraries when they deal with just one provider versus several providers
- Further work
  - We are finalizing pricing with last mile providers and aim to have this service available for E-rate funding year 2016

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Membership

- Membership
  - Customers that spend a certain minimum with ICN ($700/month) become full ICN members, and as such eligible for certain free services
  - Under consideration for free service
    - Special event bandwidth
    - Expedited service
    - Last mile QoS
    - On-net traffic to defined on-net locations, for example Google cache, Netflix, Akamai
    - Point to point and multi-point to multi-point on-network circuits at reduced rates or at no cost in addition to purchased service (subject to port availability and available capacity)
- Benefits
  - Encourages customers to spend $700/month to become full ICN members
  - Creates awareness around membership
  - Low impact to revenue for the proposed free services
  - Moves ICN towards goal of average spend per customer being at least $700/month

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Membership

- Number of Customers spending $700 or more per month
  - 3% of non-primary customers spend $700 or more per month, but account for 39% of non-primary revenue
  - 10.7% of primary customers spend $700 or more per month, but account for 47% of primary revenue

Non Primary Customers

Monthly Spend	Number of Sites	Total Customer Revenue / Year
$0 - $139	1003	$919,044
$140 - $699	402	$1,159,584
$700 - $9000	42	$1,374,090
Non Primary Customer Total	**1447**	**$3,452,718**

Primary Customers

Monthly Spend	Number of Sites	Total Customer Revenue / Year
$0 - $139	213	$202,560
$140 - $699	581	$2,285,436
$700 - $9000	96	$2,213,490
Primary Customer Total	**890**	**$4,701,486**

Grand Total	**2337**	**$8,154,204**

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ILLINOIS CENTURY NETWORK
ADVANCED ENGINEERING TASK FORCE MEMBERSHIP

Submitted for:	Action
Summary:	This item seeks confirmation of two members for a three year term that would extend through June 2018.
Action Requested:	That the Policy Committee approves the confirmation of the two members for a three year term that would extend through June 2018.
Recommended Motion:	*The Policy Committee approves the confirmation of the two members for a three year term that would extend through June 2018.*

ILLINOIS CENTURY NETWORK
ADVANCED ENGINEERING TASKFORCE MEMBERSHIP

Appointments to the Advanced Engineering Task Force (AET) were approved at the July meeting. The AET is seeking the appointment of two additional members, Raj Siddaraju with Spoon River College. Raj has participated on the AET as the representative for the Community College Presidents' Technology Council. Raj's term as Chair of the Council has ended and he is willing to continue to serve on the AET. Raj has been a valuable contributor to the AET. The new three year term would extend through June 2018.

Scott Armstrong with Kishwaukee College will be moving out of state and will be stepping down from the group. We are seeking appointment of RJ McGarry, Assistant Director of IT for Kishwaukee College as Scott's replacement. The term would extend through June 2018.

ILLINOIS CENTURY NETWORK
2016 ICN POLICY COMMITTEE MEETING SCHEDULE

Submitted for:	Action
Summary:	Determination of the ICN Policy Committee meeting schedule for calendar year 2016.
Action Requested:	The ICN Policy Committee adopts the calendar year 2016 meeting schedule as presented.
Recommended Motion:	*The ICN Policy Committee adopts the 2016 meeting schedule.*

ILLINOIS CENTURY NETWORK

2016 POLICY COMMITTEE MEETING SCHEDULE

The schedule is based on four meetings per year, occurring on the second Tuesday of the months of January, April, July and October. Based on this formula, the schedule for 2016 is as follows:

- January 12, 2016 – LLCC Training Center, Room 104
- April 12, 2016 – Illinois State Library, 300 South 2nd Street, Room 403
- July 12, 2016 – Illinois State Library, 300 South 2nd Street, Room 403
- October 11, 2016 – Illinois State Library, 300 South 2nd Street, Room 403

All meetings will be held at the Springfield addresses listed above and the James R. Thompson Center in Chicago. An audio bridge will be available for those members unable to attend at either location.