Illinois Century Network

Policy Committee
Meeting Agenda

February 25, 2008
1:00 p.m.

ILLINOIS CENTURY NETWORK
POLICY COMMITTEE
MEETING AGENDA
February 25, 2008
1:00 p.m.

Item Number		Page Number

NEW BUSINESS

10.   Next Meeting – June 16, 2008
        Illinois State Library, Springfield
        James R. Thompson Center, Chicago

ILLINOIS CENTURY NETWORK

November 19, 2007 POLICY COMMITTEE MINUTES

Submitted for: Action

Summary: Distribution of the November 19, 2007 minutes for review by
the Policy Committee.

Action Requested: Adoption of the November 19, 2007 minutes.

Recommended   The ICN Policy Committee adopts the November 19, 2007
Motion: minutes with any edits as noted.

ILLINOIS CENTURY NETWORK

NOVEMBER 19, 2007 POLICY COMMITTEE MINUTES

Greg Wass called the meeting to order:

Members present:

Greg Wass, Office of the Governor
University;   Amy Edwards, Board of Higher Education;   Anne
Craig, Illinois State Library;
Scott Norton, IL State Board of Education;
Bonnie Styles, IL State Museums;
Board
Carolyn Brown Hodge, Office of the Lt. Governor;
Library

Mike Dickson, Western Illinois

Chet Olson, City of Rochelle;
Todd Jorns, IL Community College

Kathleen Bloomberg, Illinois State

Springfield staff and guests:

Lori Sorenson, Central Management Services;
Services;
Tom Oseland, Central Management Services

Stacey Mattera, Central Management

Chicago staff and guests:

Geoff Potter, Central Management Services

Announcements and Remarks

Greg Wass introduced himself as the new chair of the ICN Policy Committee and the Chief
Information Officer for the State. Greg works in the Office of Governor and is filling a new role
for Illinois. Greg stated he is delighted to participate in the Illinois Century Network and is
looking forward to learning more about the network and working with the committee and
constituents to identify opportunities to further utilize the Network.

Lori provided an update on the effort with AT&T to expand metro Ethernet throughout the state.
CMS and AT&T have reached agreement on pricing and are working to amend the master
contract accordingly. In the meantime, the Regional Technology Center staff are working with
AT&T to market the new service offering to constituents and identify communities ready for
implementation. CMS has also reached out to Verizon to initiate a similar effort but so far there
is no progress to report.

Lori also reported that CMS is researching an effort in the State of New York where the state's Development Authority of North County has created and open access telecommunications network utilizing state-owned fiber. The network is utilized by public and private entities to sell broadband services. Representatives from New York shared their experience during the Rural Telecommunications Congress hosted by the Lt. Governor's Office.

Minutes

Greg introduced the first item on the agenda, comments & approval of the September 17, 2007 minutes.

Mike Dickson motion that the minutes be approved, Chet Olson seconded the motion on the September 17, 2007 minutes. Motion carried.

E-Rate Update

Tom Oseland from Business Services provided the E-rate update. To date CMS has received just under $3.4 million in reimbursements. This amount covers the majority of the funding year eight and nine applications leaving approximately $8,700 outstanding. The funding year ten application is under review and includes a reimbursement request of approximately $1.1 million. Staff are working to finalize the funding year eleven application which is due in early February.

Network Update

Lori provided the network update. CMS has approved the dark fiber strategy and funding in fiscal year 09 has been designated. Staff are working to identify the resources needed to implement the dark fiber including the physical fiber to connect the various network Points of Presence (POP), optical equipment, and management of the fiber. Staff anticipate that several Requests for Proposals will be issued to procure the needed equipment and services.

Mike Dickson mentioned that we may find that vendor responses to the managed services RFP may vary based on the specific manufacturer's equipment selected to light the fiber. The managed service vendors have standardized internally on a specific manufacturer and thus their technicians and tools are based on that specific equipment

CMS will be reaching out to other entities who have recently issued procurements for optical equipment to learn from their experience.

The dark fiber strategy focuses on implementing the core ring (Chicago, Peoria, Springfield, Collinsville, Champaign, Bloomington) first and then expanding throughout the state.

Staff will be relying heavily on the Advanced Engineering Taskforce to provide input and direction on modifying the service offerings and cost recovery model the network advances to significantly higher speeds as a result of the fiber.

Lori also reported on efforts to increase security detection and prevention on the network. CMS recently implemented a new tool, Stealthwatch, which has reduced the amount of staff time needed to detect and defend security attacks.

Mike Dickson asked if the Network Staff had looked further into the use of Iron Port for Spam prevention.

Lori replied that CMS is using a spam product for the State agencies as part of the State's enterprise email service. Lori thought the product was Iron Port but would need to follow up. Mike indicated that Western Illinois University is considering implementing Iron Port as is several other colleges and universities. There may be an opportunity to negotiate better pricing through collaboration.

Greg Wass asked if we could compare prices between Western's quote and the pricing on the existing CMS contract to ensure that the State is receiving a good price.

Regional Meetings

Lori presented the regional meeting update. Staff completed a series of nine regional meetings around the state. Approximately 200 constituents attended the meetings. Each meeting included representatives from the various ICN support teams including Network Operations and the Regional Technology Centers. The presentation included updates on the network, services, security issues, and bandwidth management.

A major concern from the constituents is bandwidth management. Most sites are fully utilizing their available bandwidth and are interested in tools for traffic shaping and prioritization.

Greg Wass asked if any committee members attended the sessions?

Kathleen Bloomberg attend the in East Peoria. Kathleen reported that the meeting was well done and suggested in the future that CMS conduct informational sessions for eligible constituents not yet connected to the network where the focus would be more on the reasons why to connected.

Ann Craig mentioned that Robin Woodsome presented at the annual Illinois Library Association meeting held in October. The presentation was targeted specifically to libraries which was very helpful.

Lori indicated that the ICN also exhibited at the Illinois Association of Museums conference in order to expand awareness of the ICN among the museum community.

Greg Wass suggested that CMS survey meeting participants for feedback to shape future planning.

Future Committee Meetings

Greg led a discussion on the dates, location and format for future committee meetings. Members agreed that the current meeting schedule, 3rd Monday of the month in February, June, September and November is appropriate. Members will continue to have the option to participate in Chicago or Springfield via video or via audio conference. It was decided that the Springfield location alternate between the Illinois Community College Board and the Illinois State Library.

Greg asked that a call for agenda items be sent to committee members in advance and encouraged members to consider sharing internal initiatives that will drive the utilization/demand for network services. Greg also asked CMS staff to look into coordinating presentations from ICN constituents at future meetings. The goal is to highlight innovative uses of the network and highlight best practices.

2008 Meeting Schedule & Agenda

Greg Wass indicated that we would rotate the meetings from the Illinois Community College Board and the Illinois State Library.

February 25, 2008	Illinois Community College Board, Springfield
	James R. Thompson Center, Chicago
June 16, 2008	Illinois State Library, Springfield
	James R. Thompson Center, Chicago
September 22, 2008	Illinois Community College Board, Springfield
	James R. Thompson Center, Chicago
November 17, 2008	Illinois State Library, Springfield
	James R. Thompson Center, Chicago

Greg Wass motioned to adjourn. Chet Olson & Bonnie Styles second the motion.

ILLINOIS CENTURY NETWORK

ADVANCED ENGINEERING TASKFORCE:
2007 REPORT

Submitted for: Information

Summary: This item provides the Policy Committee with a brief summary of the recommendations included within the 2007 Advanced Engineering Taskforce Report.

ILLINOIS CENTURY NETWORK

ADVANCED ENGINEERING TASKFORCE:
2007 REPORT

The Advanced Engineering Taskforce recently submitted the 2007 report highlighting activities and accomplishments along with recommendations on future priorities.

During this last year the AET had many accomplishments including:

- Prepared for enhanced future services by releasing "The Next Century Network: A Vision and Strategic Plan" that lays out a design and implementation of state communications infrastructure required for future services
- Improved methods for supporting existing services by continued expansion of the "Best Practices" website
- Explored the potential for new services by implementing a collocation model for education content on the core backbone
- Enhanced network security through the establishment of a statewide contract on antivirus and working on anti-spam agreement
- Undertook the provisioning of required staff and equipment resources by hiring additional staff for the RTCs to fill vacancies and renewing the Cisco contract
- Enhanced basic financial position through cost efficiency for connectivity to state government organizations

The AET recognizes that the ICN will continue to face many challenges in its mission to provide services that support a mission critical environment. They include:

- Continuing to meet the expanding communication service needs of the ICN community
- Planning for required future services and technologies
- Continuing to build the ICN constituent driven model
- Ensuring a highly reliable, secure network infrastructure by maintaining and upgrading core facilities
- Developing and implementing an appropriate funding model that considers both operational and capitalization requirements

The report highlights the following specific recommendations:

- Continued support for the new mission, vision, and planning process identified in the Next Century Network.
- The ICN should provide a core technology infrastructure to provide high quality service to support the application needs into the future.

- The ICN should develop the requirements, design, and implementation schedule for a network operations center supporting optical networking.
- The development of a technology replacement strategy for the ICN and constituents to improve overall network performance.
- ICN should explore and implement expanded cost effective services that would benefit the ICN constituents and the network operations.
- ICN staff should continue to pursue collocation, developing a service that can be marketed to constituents.
- ICN should continue to provide a quality service financial model through competitive pricing and an appropriate baseline allocation.
- Continued investigation of wireless technologies to add value and reduce cost over landline solutions for all constituents.
- Development of a system providing easier access to statewide contracts for technology as well as products and services.
- ICN should continue to investigate these newer technologies and determine appropriate models that can benefit the ICN constituents.
- ICN should review the staffing levels and allocate resources necessary to meet service needs. In addition the ICN should develop retention and development plans to improve staff morale and training levels.
- ICN should review/recommend disaster recovery/backup services that can provide alternate solutions for Internet access to the network.

The full Advanced Engineering Taskforce Report is available on the ICN website at the following link: http://www.illinois.net/pdf/AET_Report_2007.pdf.

ILLINOIS CENTURY NETWORK

**ADVANCED ENGINEERING TASKFORCE:
MEMBERSHIP APPOINTMENTS**

Submitted for:	Action
Summary:	This item seeks confirmation of Lucas Kirkbride to the Advanced Engineering Taskforce as a replacement for Todd Cooper.
Action Requested:	That the Policy Committee approves the confirmation of Lucas Kirkbride to the Advanced Engineering Taskforce as a replacement for Todd Cooper.
Recommended Motion:	*The Policy Committee approves the confirmation of Lucas Kirkbride to the Advanced Engineering Taskforce as a replacement for Todd Cooper.*

ILLINOIS CENTURY NETWORK

ADVANCED ENGINEERING TASKFORCE:
MEMBERSHIP APPOINTMENT

For the past several years, Todd Cooper with the Illinois Critical Access Hospital Network (ICAHN) has been an active member of the Advanced Engineering Taskforce. ICAHN represents over 50 critical access hospitals primarily serving rural areas of the state. Many of the ICAHN IT services depend on the Illinois Century Network.

Last month, Mr. Cooper notified CMS staff that he is unable to continue his participation in the Advanced Engineering Taskforce and recommended Lucas Kirkbride continue in his place. Mr. Kirkbride has assumed technical/administrative responsibilities for ICAHN and its member hospitals. Mr. Cooper's term runs through June 2008.

The graph on the next page shows a representation of the current AET membership.

The staff recommends adoption of the following resolution:

The Policy Committee approves the confirmation of Lucas Kirkbride to the Advanced Engineering Taskforce as a replacement for Todd Cooper.

Advanced Engineering Taskforce Member Matrix 2007

K-12 Schools	Community Colleges	Universities	Libraries	Museums	Other Institutions	Units of Local Government	State Agencies	Staff
Chicago Public Schools (2007)	CCPTC (2010)	Michael Shelton SIU (2009)	Andrew Bullen Illinois State Library (2010)	Meredith Mahoney Illinois State Museum (2009)	Todd Cooper IL Critical Access Hospital Network (2008)	Sam Ferguson City of Schaumburg (2010)	Ryan Croke Lt. Governor's Office (2009)	Kirk Mulvany CMS
Jim Flanagan Maine Township Schools (2009)	Alan Pfeifer Sauk Valley Comm. College (2008)	Mike Dickson WIU (2010)	Rob Zschernitz North Suburban Library System (2009)	Cheryl Obermeyer Chicago Hist. Society (2008)		Ken Terrinoni Boone County (2009)	Mark Kinkade IDOT (2010)	Robin Woodsome CMS
Dennis Gallo O'Fallon CCSD 90 (2010)	Rich Kulig COD (2009)	Charles Kline UIUC (2008)	Karim Adib Chicago Public Library (2008)	Robert Dulski Brookfield Zoo (2008)		Glen Trommels City of Rockford (2009)	Steven Bois DCEO (2010)	Lori Sorenson CMS
Mark Drone Bond-Fayette-Effingham ROE (2010)	Scott Armstrong Kiskwaukee Comm. College (2009)	Joel Mambretti Northwestern University (2009)	Troy Brown Shawnee Library System (2008)			Jason DeHaan City of Chicago (2010)		Frank Walters CMS
Jim Peterson Bloomington Schools (2010)		Ken Spelke UIUC (2010)	Brandon Gant CARLI (2009)					
		Greg DeYoung EIU (2008)						
		Herb Kuryliw NIU (2009)						

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ILLINOIS CENTURY NETWORK

E-RATE UPDATE

Submitted for: Information

Summary: This item provides an update regarding the E-rate program.

Action Requested: None

ILLINOIS CENTURY NETWORK

E-RATE UPDATE

As of January 31, 2008, CMS had received the final disbursement of approved funding for E-rate Years 8 and 9. To recap, $25,948.29 in E-rate reimbursements was received in Fiscal Year 2007 and $3,381,010.76   in Fiscal Year 2008.   Again, these funds represent all approved funding associated with the Funding Year 8 and Year 9 applications.

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[1]
Year 5 (2002)	$4,996,227	-0-	-0-	N/A
Year 6 (2003)	$4,644,171	-0-	-0-	N/A
Year 7 (2004)	N/A	N/A	$5,474,865	$393,338[2]
Year 8 (2005)	$2,424,567	-0-	-0-	N/A
Year 9 (2006)	$982,392	-0-	-0-	N/A
Year 10 (2007)	N/A	N/A	$1,197,231	N/A
Year 11 (2008)	N/A	N/A	$1,604,177	N/A
Totals	**$17,364,850**	**-0-**	**$8,276,273**	**$2,667,570**

The E-rate Funding Year 10 application remains at the initial review status. While checking on the status, CMS has learned there are changes to the review process. If an individual school/district application is held up in review for some reason, and that

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[1] The probability of receiving this Funding Request is minimal. Denial was based on the expiration of a master contract during the funding year.
[2] 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.

school/district is a member of a consortium application, (such as the ICN), then the consortium application will also be held until the issue with the individual school/district is resolved. Many of the schools/districts included in the ICN application apply directly for reimbursement for other eligible services such as voice lines, LAN equipment, etc. Apparently this is the case with the ICN Year 10 application. It is not known at this time how long the delay will last.

The ICN Year 11 application was submitted on February 7, 2008. The total of the reimbursement request is approximately $1,604,177.

On December 12, 2007, the FCC issued order #DA 07-4973 granting the ICN's and 12 other consortium's appeals of denied funding requests. The Year 7 application has been remanded to USAC for the purpose of completing the application review and issuance of a decision based upon the completed review and analysis. This review process is currently taking place. It is not know at this time when a decision will be issued by USAC. The final reimbursement request will be significantly less than the amount listed in the table above. Due to reporting constraints attributable to the time span between the original application process and the actual funding year, reductions must be taken for schools listed in the application that were actually not connected to the ICN, schools that did not return the required CIPA compliance Form 479, and those for which an LOA is not on file to ensure accurate funding requests. Final reimbursement requests will based on the actual expenditure for the funding year and then adjusted by the aforementioned factors.

ILLINOIS CENTURY NETWORK

PRIMARY CONSTITUENT STATUS

Submitted for: Information

Summary: This item presents requests from various entities to be considered as primary constituents eligible for baseline bandwidth.

ILLINOIS CENTURY NETWORK

PRIMARY CONSTITUENT STATUS

In FY 2003 the Policy Committee implemented a cost recovery program to address increasing demands for backbone bandwidth within funding limitations. Prior to the cost recovery program ICN connectivity was primarily utilized by educational entities only (K-12, higher education libraries and museums). These "primary" constituents were the catalysts to secure state funds to build and operate the network. As the bandwidth demands from primary constituents increased and the number of "non-primary" constituents (non-profits, local governments, health care, etc.) connecting to the network increased, operating costs were on target to exceed the annual state appropriation. Cost recovery was implemented to ensure the quality of network performance did not decline due to over utilization.

The cost recovery model provides a level of "free" bandwidth to primary constituents based on enrollment using full-time equivalency (FTE) provided by the Board of Higher Education and the Illinois State Board of Education. For those entities without enrollment figures such as libraries, museums, and district officers, a fixed level of bandwidth is allocated.

Non primary constituents do not receive baseline bandwidth rather they purchase bandwidth at the state's cost. The cost for bandwidth begins at $170 per MB and is reduced on a sliding scale as more bandwidth is purchased. For those entities purchasing 200 MB or more the cost is $70 per MB.

The table on the next page shows the allocation formula for primary constituents.

Primary Constituent Cost Recovery

Institution(s) Student FTE Headcount	Old Allocation (FY02) (Mbps)	New Allocation (Mbps)	New Allocation with E-rate
1 - 999 (and entities without FTE)	1.5	8	11
1,001 - 1,999	3	8	11
2,000 - 2,999	4.5	8	11
3,000 - 3,999	6	8	11
4,000 - 4,999	7.5	10	13
5,000 - 5,999	9	12	15
6,000 - 6,999	10.5	14	17
7,000 - 7,999	12	16	19
8,000 - 8,999	13.5	18	21
9,000 - 9,999	15	20	23
10,000 – 10,999	16.5	22	25
11,000 – 11,999	18	24	27
12,000 – 12,999	19.5	26	29
13,000 – 13,999	21	28	31
14,000 – 14,999	22	30	33
15,000 – 15,999	23	32	35
16,000 – 16,999	24	34	37
17,000 – 17,999	25	36	39
18,000 – 18,999	26	38	41
19,000 – 19,999	27	40	43
20,000 – 20,999	28	42	45
21,000 – 21,999	29	44	47
22,000 and above	30	45	48

Since the implementation of cost recovery ICN staff have received multiple requests from individual constituents and constituency groups requesting to be considered a primary constituent thus eligible for a baseline level of bandwidth. Staff also receive multiple requests from primary constituents to provide additional bandwidth above the current baseline. The most recent request for primary constituent status is on behalf of the Community Action Agencies which receive a large portion of their funding from the Department of Commerce and Economic Opportunity and the Department of Health and Family Services.

CMS is seeking input from the Policy Committee on expanding primary status to other constituent groups as well as requests from primary constituents to provide additional baseline bandwidth.

ILLINOIS CENTURY NETWORK

NETWORK UPDATE

Submitted for: Information

Summary: This item provides the Policy Committee with a brief summary
of the ICN Network Updates.

ILLINOIS CENTURY NETWORK

NETWORK SERVICES UPDATE

Last Mile Connectivity

The Next Century Network report established several goals for the Illinois Century Network. One of these goals was to "assure that all constituents, regardless of location, have rapid, easy and cost-effective access to a high-performance network." Historically the ICN has negotiated discounted pricing with AT&T for "last mile connectivity" for traditional telecommunications circuits – primarily T1s. While the T1 pricing is very economical, it is available in AT&T territory only thus leaving many constituents with higher cost access circuits. The problem has been compounded during the last few years as constituent bandwidth needs are exceeding the capability of a T1. Cable companies offering Ethernet-based services have provided another economical option for constituents; however, availability of these services has been geographically limited.

During the past year CMS staff have renewed efforts to purse alternative technologies and vendors for providing high speed access across the state at a reasonable cost
The following table outlines some of the recent progress made in this area:

Vendor	Service Definition	Geographical Focus	Status / Detail
AT&T	Opt-E-MAN Fiber Service	Statewide	Agreement reached on new pricing for Opt-E-MAN Service. New pricing in 3 year and 5 year terms reflects a 24% - 46% decrease in monthly service costs depending upon the respective level of service offering.
Verizon Business	Metro-Ethernet Service	Regional	ICN has provided a "short list" of sites to Verizon Business with a request for sample quotes for Metro-Ethernet service. Sample sites are concentrated in Southern Illinois (MSA 12).
Norlight	Fiber	Regional	ICN has provided a "short list" of sites to Norlight with a request for sample quotes for dedicated fiber build out and service.

			Sample sites are concentrated in Southern Illinois (MSA 12).
Volo Broadband	Wireless	Regional	This Internet Service Provider in the Champaign-Urbana area has contacted ICN to express an interest in providing last mile connectivity into the local ICN POP for constituents.
McDonough Telephone Cooperative	Fiber	Regional	ICN working with McDonough Telephone Cooperative to identify opportunities for potential last mile fiber connectivity in Northwest Illinois.

Dark Fiber

The Next Century Network report also identifies a goal to "expand and continually upgrade the statewide network infrastructure so that its capacity and speed are sufficient to support current and future applications and provide maximum flexibility to accommodate the diverse needs of constituents." Utilization of Dark Fiber assets has been identified as one of the strategies to pursue in order to expand capacity and provide flexibility for the ICN.

Constituents have identified a number of needs for more bandwidth. Needs include but are not limited to:

- Distance Education
- Streaming Video and Voice
- Disaster Recovery
- Shared Services
- Tele-health Initiatives
- Statewide Online Collaboration

CMS staff are focused upon implementing and utilizing Dark Fiber connectivity to interconnect a number of ICN POP sites, which include, Chicago, Peoria, Springfield, Collinsville, Champaign, Bloomington, and Charleston. This initial scope of Dark Fiber implementation is expected to take place throughout Fiscal Years 2009 and 2010.

This work is crucial to the next generation ICN as it will provide a foundation to meet the above-listed constituent needs as well as allow ICN to remain relevant by providing a highly available, redundant statewide network. As Dark Fiber is utilized on the ICN, benefits are expected to result in the areas of ICN Cost Recovery and ICN service offerings. The increased bandwidth capacity will help spur potential ICN Cost Recovery changes including, moving to a model that differentiates between ICN on-net and off-net traffic, thus continuing to lower constituent bandwidth costs and raise constituent baseline bandwidth. This move to an optical network at a portion of the core backbone will provide opportunity for ICN to explore the possibility of extending optical based network transport services to constituents for their individual needs in addition to utilizing this technology and architecture on the ICN backbone itself.

ILLINOIS CENTURY NETWORK

CONSTITUENT HIGHLIGHT

Submitted for: Information

Summary: This item highlights innovative constituent utilization of the high speed, reliable bandwidth provided by the network.

ILLINOIS CENTURY NETWORK

CONSTITUENT HIGHLIGHT

Presentation and handouts to be provided at the meeting.