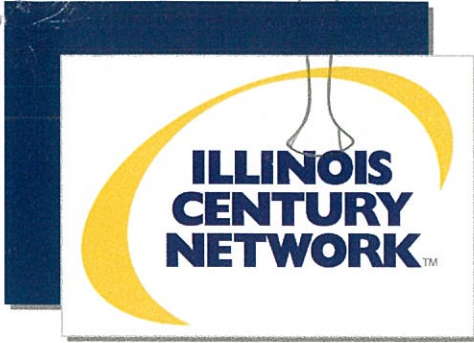


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# ILLINOIS CENTURY NETWORK

## **POLICY COMMITTEE MEETING AGENDA**

**June 18, 2003**

**2:00 p.m.**

**ILLINOIS CENTURY NETWORK  
POLICY COMMITTEE  
MEETING AGENDA  
June 18, 2003  
2:00 p.m.**

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ILLINOIS CENTURY NETWORK

FEBRUARY 19, 2003 POLICY COMMITTEE MINUTES

**Submitted for:** Action

**Summary:** Distribution of the February 19, 2003 minutes for review by the Policy Committee.

**Action Requested:** Adoption of the February 19, 2003 minutes.

**Recommended Motion:** *That the ICN Policy Committee adopts the February 19, 2003 minutes with any edits as noted.*

ILLINOIS CENTURY NETWORK

**FEBRUARY 19, 2003 POLICY COMMITTEE MINUTES**

The meeting was called to order by Mary Reynolds.

Members present: Brian Foster, Illinois Hospital Association; Bruce McMillan, State Museum; Alice Engle representing Michael Rumman, Department of Central Management Services; Don Fouts, Federation of Independent Illinois Colleges and Universities; Dan LaVista, Illinois Board of Higher Education; Mary Reynolds; Joe Cipfl, Illinois Community College Board; Jean Wilkins, Illinois State Library (Jean was able to attend later in the meeting).

Other attending included: Will Krause, Greenville College; Mary Ring, Department of Public Health; Kathy Knezevich and Dominic Saebeler, SBC; Anne Craig, Illinois State Library; Gary Shaffer, Kirk Mulvany, Karlin Sink, Lori Sorenson, Lynn Murphy, Neil Matkin, and Rebecca Dineen all from the Illinois Century Network.

1. Policy Committee Minutes

Staff requests the adoption of the November 13, 2002 meeting minutes.

Motion: Bruce made the motion; Brian seconded.

Bruce moved that the ICN Policy Committee adopt the November 13, 2002 minutes with any edits as noted.

An introductory phrase will be added to the following sentence on page 11 of the agenda in order to note transition from one topic to another.

*“It was also noted that the individual case basis tariff for non-primary constituents gives non-education constituents a 40% discount on DS1 (T1) service.”*

The information contained within the minutes is correct. No information was found to be missing.

Motion carried with edits.

## 2. Announcements

Mary announced that Scott Kennedy is the Governor's new Director of Technology. Scott was unable to attend the Policy Committee meeting; however, Mary noted that he is a huge supporter of the network and she is sure he will play an active role in the ICN. Mary also introduced Don Fouts and welcomed him to the Policy Committee.

## 3. Remarks

Neil mentioned that he and Lynn Murphy had recently attended the annual State Networks conference. The ICN is still leading the state networks in regards to the number of connections and traffic to the Internet. Wisconsin and Missouri are adopting the ICN services model. Neil thanked Kirk Mulvany, Robin Woodsome, and Ralph Lucia for bringing the model together. Illinois is currently forming a partnership with Wisconsin, Indiana, and Missouri to examine homeland security and healthcare issues as they relate to state networks. The group is going to meet this spring.

This is the first year the ICN has been asked to be a participating partner with multiple Illinois universities and community colleges on grant applications. In the past, ICN participation had been limited to writing letters of endorsement.

February 4<sup>th</sup> Neil had the opportunity to give an update to the Illinois Board of Higher Education (IBHE). Part of that update included the *No Child Left Behind* program. The state is extraordinarily well positioned to receive federal funds from this program thanks to the work of LincOn and the continued work of the ICN. The ICN is working with K-12 representatives to ensure that the state stays well positioned.

The deployment of ICN services currently depends on two components, the 24/7 network operations center and dark fiber. Both topics will be covered in this meeting. Budget information and conference brochures were distributed.

## 4. Remarks by Will Krause

Will Krause is the Associate Vice President for Technology and Planning at Greenville College. The college has a connection to the ICN for its educational content, but it also maintains a separate connection to the Internet. They use this separate connection to operate as a local Internet Service Provider (ISP), connecting for-profit business and other local entities. To date, none of the for-profit traffic has crossed the ICN. The current provider of their ISP connection has proven to be unreliable. Therefore, Mr. Krause is asking the Policy Committee to consider allowing Greenville College to pass their for-profit traffic across the ICN on a temporary basis until a permanent solution is found to ensure that Greenville maintains their reputation as a reliable ISP. Mr. Krause also noted that the college is currently in preliminary conversations with Qwest regarding a connection to the Internet, but it will take 45 – 60 days to get the service. If the ICN were to provide a temporary solution, it would fill that gap in service. Neil recommended

that the Policy Committee consider a temporary solution because there were still too many unanswered questions surrounding long-term for-profit connections. The staff will come back to the Policy Committee with a recommendation in June on the issue of long-term connections of this kind. Neil also mentioned that Greenville College has always dealt honorably and honestly with the ICN having not run any for-profit traffic over the network.

Motion: Joe made the motion; Alice seconded.

Joe moved to adopt the staff recommendation of providing a temporary connection to Greenville College while the staff prepared to address the issue of long-term for-profit connectivity in June.

Motion passed.

##### 5. Administrative/Operating Rules

At a past meeting, the Policy Committee directed the staff to explore which motions passed by the committee through its history should be incorporated into administrative rules. The staff drafted proposed administrative rules for action by the Policy Committee. Lori noted that the staff had been working with ICN legal counsel to draft the administrative rules in line with legislation. She asked that the Policy Committee review the rules and bring forward any issues, questions, or concerns. The staff will take those suggestions to JCAR in advance of posting to the central register to give them opportunity to offer any technical comments or other assistance. Once complete, the rules will be posted in the Illinois Register to begin the adoption process.

Bruce questioned the language used under item E regarding public and private museums 'which are eligible for grants from the Illinois Department of Natural Resources'. The ICN public act was not used to define public museum. That language was recommended by legal counsel in order to keep the rules more general in nature. Bruce agreed to leave the language as is for the time being, and noted that he would contact the staff if there appeared to be a problem. Lori suggested presenting the question to the JCAR staff for a recommendation.

The language that was chosen for the administrative rules tries to provide enough specificity to meet the requirements of the administrative rules process, but allow for the understanding that statutes, agencies, and their definitions are going to change over time. This prevents the staff from needing to amend the rules each time there is a small change.

There were two grammatical changes on page 18: the top line should read 'all rate changes shall be communicated' and in the second to last line, benefits should change to benefit to read 'services benefit eligible constituents'.

Mary questioned the language used in Section B on page 16 regarding public and private not-for-profit colleges and universities; however, Dan said that he was comfortable with the definition as it read. Mary also questioned the use of the term 'officers' rather than offices at the bottom of page 16 in Section B and why 'offices of Clerk of the Supreme Court and Clerks of the Appellate Court' are defined specifically while other constitutional offices and the legislature are not. Alice commented that this was the same language from CMS' telecommunications rules and it did read 'officers', which is meant to include those other groups Mary asked about.

Mary questioned the use of 'not-for-profit' at the top of page 17 in Section D because she believed the legislation was not specific to not-for-profits. Lori replied that Section D refers to not-for-profit organizations, but Section 1.35 contains language regarding public/private partnerships based on a motion the Policy Committee passed approximately one year ago allowing examination on a case-by-case basis. Brian noted that he was concerned initially about hospitals because there are more operating as for-profit organizations; however, at this time hospitals are well represented and he has no problem with the language used. He suggested the ICN start developing policies and criteria so that there is no picking and choosing based on who knows who.

There was discussion over what language to use regarding increases and decreases in appropriation. The concern is the possibility that an appropriation could be increased or decreased for a particular sector or entity. The intention is not to let specific monies impact all constituents. Adding the phrase 'unless the terms of the increase dictate otherwise' or 'the baseline services would be adjusted accordingly' to the last sentence in Section 1.2 was suggested.

It was questioned whether the word 'all' should be used in Section 1.3 when describing rates for services provided, but the language was not changed. In the case of services like collocation, when no charges are applied, a contract or intergovernmental agreement is used.

It was questioned why the specific rates were included. Lori answered that ICN legal counsel felt very strongly that this rule could not be taken to JCAR without the initial rates included as a foundation. Bruce suggested keeping as few numbers as possible in the rules to keep from making changes each time the rates change. The policies for governing rate schedules should be established, but the rates themselves should not be published. They can be referenced within the rule and a current rate schedule can be attached, although those may need to be updated annually. Lori and Neil agreed with this recommendation. Bruce also recommended speaking to legal counsel again and emphasized the strategy should be to minimize the use of specific numbers.

Mary suggested referencing the state statute in Section D on the top of page 17 rather than just list discriminatory services, either by adding the language 'such as defined in state law' or only referencing the statute and not listing the services. However, there were also strong feelings that the discriminatory services listed should stay in the rule.

The Policy Committee decided the staff should take the suggestions made today back to Bill Feurer for a final review. Neil suggested adding language to the proposed motion to better reflect the intent of the Policy Committee. (The changes are italicized in the motion below.)

Motion: Dan made the motion; Bruce seconded.

Dan moved that the Policy Committee approves the proposed *general* administrative rules for publication in the Illinois Register *after final review by legal counsel*.

Motion carried.

#### 6. Illinois Commerce Commission Update

Neil provided an overview of ongoing discussions with the Illinois Commerce Commission (ICC) regarding inconsistent telecommunications pricing throughout the state. An updated pricing map was distributed. The pricing listed on the map is educational pricing. There are 40 independent telecommunications companies in Illinois that are governed by three tariffs. This map was also presented to ICC staff. The ICN and ICC also met with some independent telecommunications companies and other large players to discuss the pricing. One goal of that meeting was to try and reach some concessions from independents who don't currently offer educational pricing. Other issues currently being discussed are local exchange carrier (LEC) pricing of T1 service, contract termination penalties, the process for tariff and rate evaluation and e-rate.

The ICN staff has had some very good conversations regarding contract termination penalties with SBC, Verizon and other large LECs. The current problem with many termination penalties is that an entity committed to a three or five year contract could pay more in termination penalties than the original commitment of funds depending on when they terminated the contract. Neil noted that the staff appreciates SBCs aggressive reaction to address this issue. Neil also noted that the ICN will likely file a formal complaint with the ICC and ask that this problem be permanently resolved.

In regards to tariff and rate evaluation, the staff is asking for a better understanding of how tariffs and rates are evaluated so that constituents will know the effect of their pricing long term. The ICN is currently cooperating with the Federal Communications Commission (FCC) and the Illinois Commerce Commission to address potential fraud issues in the e-rate program within Illinois. It is evident that some of the areas with the highest e-rate subsidies also have the highest costs for telecommunications services. The staff will bring an update on this item to the Policy Committee in June.

Mary thanked the staff for their work.



## 7. Budget/E-rate Update

Lori provided an update on the budget and current revenue and expenditure projections. In previous meetings, the staff discussed \$6.4 million in e-rate funding for both last fiscal year and the current fiscal year that had not been received. Lori noted that the staff is still working with e-rate program administrators, but the funds have not been received. It is unlikely that the funds from either year will be received this fiscal year.

Usually, the e-rate funds provide for network upgrades including hardware, software, circuits, and egress. Without a clear expectation as to when the funds will be received, the staff has put a hold on all non-essential purchases. The lack of e-rate funds has not impacted services to this point and dark fiber initiatives are still being pursued. The staff expects to hear more about whether the e-rate funds will be received on February 20.

Another impact on the ICN budget is the State's current financial crisis. Each agency is responsible for paying interest on all payments issued to vendors 60 days past the date the agency receives the bill. Currently, due to budget constraints, the Comptroller's Office is forced to hold paying invoices from the general revenue fund for an extended period of time pushing many payments past the 60 day mark. Upon recommendation by legal counsel, the ICN has been tracking and automatically processing interest payments to vendors on invoices over \$500. The ICN incurs very large telecommunications bills monthly and to date has spent approximately \$8,000 in interest payments. The staff anticipates spending \$150,000 in interest payments this year. There is a significant amount of staff time spent tracking and processing these payments which must be issued on a separate voucher.

Neil commented that other Midwest state networks are in deficit spending because of the delay in receiving e-rate funds. Fortunately, the ICN is not in deficit spending. Neil thanked Lori Sorenson and Cindi Hitchcock for their extraordinary work on the budget and their work with the Comptroller's Office.

It was questioned what role the Universal Service Administrative Company plays in the e-rate program. Lori responded that they administer the program and review/approve applications.

## 8a. Dark Fiber Procurement

In her budget discussion, Lori updated the Policy Committee on the progress of the dark fiber project. Dark fiber is still seen as essential to the survival of the network. The RFP went out last year and the responses are being evaluated. The staff has received very reasonable pricing and is still working with vendors to move forward. The staff will not enter into a financial commitment without knowing more about the receipt of e-rate funds.

#### 8b. 24/7 Network Operations Center and 8d. Remote Monitoring Capabilities

Gary noted that planning and preparation for the ICN 24/7 Network Operations Center (NOC) continues. The primary focus now is training and integration of NOC staff with the NDE staff so they are able to build relationships and seek the expertise of other staff members.

Gary also commented on the network monitoring tools and capabilities of the NOC. The staff currently monitors constituent connections and backbone connections, is prepared for hardware failures and other alarms and uses graphing and forecasting features to help monitor trends. Netbotz are new additions to the network which have environmental monitoring capabilities and feature a live video feed from each POP site.

Neil added that the Network Operations Center and external monitoring capabilities are essential to providing the world class services our constituents have asked for. It also enables entities to plan more diligently; knowing what they can do and what they will be able to do in the future. The Missouri network was the first to move in this direction. Neil invited the Policy Committee members to visit the ICN NOC, especially during this building phase.

#### 8c. Addition of Services

Kirk provided a PowerPoint presentation on the implementation of ICN services. There are five phases: Discovery/Service Proposal Development, Preparation, Production, Implementation, and Follow-up/Process Review. Once a service is identified or requested it is determined whether that service can be provided as a cost effective solution by the ICN or if it is readily available on the commercial market. It is then run through the service implementation process. So far, the services offered have been very successful; filtering has been the most successful.

Mary commended the staff on this process and their work to establish it.

Jean questioned who the filtering customers were. Kirk replied that they are primarily K-12 entities.

Neil noted that one reason both Missouri and Wisconsin are adopting the ICN service implementation process is because the costing models have staffing levels built in. State funds are used to begin services, but cut-off points and feasibility points are built in so that these services pay for themselves. This insures staffing levels can increase as needed to support the service without utilizing state funds.

#### 8e. Illinois Online Leadership Council

Lynn, recently voted Chair of the Illinois Online Leadership Council (IOLC), provided an update on the group's activities. This volunteer group began meeting to look at e-

learning as a whole and determine what they could do as a group that could not be accomplished individually. Their efforts have been focused on bringing attention to the concept of e-learning and the organizations involved along with avoiding duplication of efforts. During the first two years, elearning.illinois.net and several public relations pieces were created. The e-learning website was meant to be a portal into e-learning resources, but acts today as a front door to all of the e-learning initiatives in Illinois.

Going into its third year, the group knew that there was going to be change and recognized the need to continue providing a comprehensive e-learning program. A strategic planning session was held in September. The group decided to write a concept paper showing all of the elearning initiatives complement one another. Designed for the public, distribution of the paper will be decided once it is finished.

The IOLC is sponsoring the Socratic dialogue "Collaboration Across Boundaries: Creating Synergies to Add Value for Illinois" at the 2003 Illinois Distance Learning Conference. Neil mentioned that the conference is focusing on using resources across all sectors. There is 100% vendor sponsorship and SBC has signed on to support certain pieces.

Neil thanked Lynn for her work on the IOLC and her tremendous efforts in putting together the paper.

#### 9. Executive Session

Motion: Dan made the motion; Bruce seconded.

Jean moved that the Policy Committee go into closed Executive Session at 3:32 p.m., Wednesday, February 19, 2003 for the purpose of discussing Illinois Century Network personnel issues pursuant to Section 2(B)(1) of the Open Meetings Act.

Motion carried.

#### 10. Resume Meeting

The meeting resumed at 3:52 p.m. No action was taken as a result of the executive session.

Motion: Alice made the motion; Jean seconded.

Alice made the motion to adjourn.

Motion carried.

Meeting adjourned at 3:54 p.m.

ILLINOIS CENTURY NETWORK  
**ADVANCED ENGINEERING TASKFORCE:  
2003 REPORT**

**Submitted for:** Action

**Summary:** The Advanced Engineering Taskforce has recently completed and submitted its 2003 report to the Illinois Century Network management team. This item provides the report for consideration of the Policy Committee.

**Action Requested:** That the Illinois Century Network Policy Committee accept and endorse the 2003 report of the Advanced Engineering Taskforce.

**Recommended Motion:** *The Illinois Century Network Policy Committee accepts and endorses the 2002 report of the Advanced Engineering Taskforce.*

ILLINOIS CENTURY NETWORK  
**ADVANCED ENGINEERING TASKFORCE:  
2003 REPORT**

The Advanced Engineering Taskforce has recently completed and submitted its 2003 report to the Illinois Century Network management team for review and feedback. After careful review and analysis of the report, the ICN management team is in full support of the recommendations made in the report. The management team also agrees with the issues raised by the AET that are critical for the long-term success of the ICN. The need to address these issues in support of the 5,725 connected constituents is of the utmost importance and will figure significantly into the priorities for ICN staff in Fiscal Year 2004.

The 2003 AET Report is attached to this agenda and will be posted on the ICN web site.

Staff recommends the following resolution:

*The Illinois Century Network Policy Committee accepts and endorses the 2003 report of the Advanced Engineering Taskforce.*

ILLINOIS CENTURY NETWORK

**BUDGET UPDATE:  
FISCAL YEAR 2003 STATUS AND  
FISCAL YEAR 2004 PRELIMINARY BUDGET**

- Submitted for:** Action
- Summary:** This item presents the Policy Committee with a fiscal year 2003 year-to-date budget update and a preliminary fiscal year 2004 budget.
- Action Requested:** That the ICN Policy Committee approve the fiscal year 2004 preliminary budget subject to final appropriation.
- Recommended Motion:** *The Policy Committee approves the preliminary fiscal year 2004 budget subject to adjustment pending the State of Illinois fiscal year 2004 budget appropriation.*

## ILLINOIS CENTURY NETWORK

### **BUDGET UPDATE: FISCAL YEAR 2003 STATUS AND FISCAL YEAR 2004 PRELIMINARY BUDGET**

This item presents the Policy Committee with a fiscal year 2003 year-to-date budget update and a preliminary fiscal year 2004 budget. The ICN preliminary budget reflects the portion of the CMS appropriation which has been specifically earmarked for the Illinois Century Network, in addition to anticipated revenues resulting from cost recovery and the federal e-rate program.

For fiscal year 2003, revenues reflect only a minor portion of year three federal e-rate funds that were requested, but indicate the funds that have been received to date. Staff anticipates receiving \$281,881 in additional e-rate funds this fiscal year. The balance of year three funds will be received in fiscal year 2004. Cost recovery revenues exceeded anticipated levels, due mainly to the rapid payment by constituents. It is now projected that cost recovery revenues in fiscal year 2003 will slightly exceed \$1.7 million dollars. The creation of the Illinois Century Network Trust fund enabled the ICN to generate interest revenues from the cash balance in that account.

Many anticipated expenditures for telecommunications equipment have been postponed until the status of receipt of e-rate monies have been determined. As those monies have been received, and as final telecommunication costs have been determined, orders for the most critical equipment have been processed. Overall, the budget is on target as ICN moves to completion of the fiscal year.

Overall, revenues for fiscal year 2004 are decreased. While revenues for cost recovery are expected to increase in fiscal year 2004, e-rate reimbursement projections have been dramatically reduced. Federal e-rate revenues reflect \$1.1 million for the balance of year three funds, and \$652,159 for year four funds. The year four fund figure is only a portion of what was requested, and reflects the amount approved to date.

Expenditure projections for fiscal year 2004 reflect a reduction in all line items, except Prompt Payment (Interest) and Operation of Auto. As the ICN received the van in April 2003, the fiscal year 2004 is the first budget which represents a full year of operation. Personnel costs are reduced, due to decreased staffing levels which have occurred throughout fiscal year 2003. Telecommunication costs are indicative of the discounted pricing which was negotiated this past year for equipment, maintenance and services. Equipment expenditures are reduced, as the cost of the van will not appear in the fiscal year 2004 budget. It has also been determined that the Regional Technology Centers will not require additional funding in fiscal year 2004. Prompt Payment continues to pose a

dramatic impact to the budget, as vouchers are being held within the Comptroller's office for up to twelve weeks.

Budget tables are attached for fiscal year 2003 and preliminary fiscal year 2004 budgets.

Staff recommends the following resolution:

*The Policy Committee approves the preliminary fiscal year 2004 budget subject to adjustment pending the State of Illinois fiscal year 2004 budget appropriation.*



**Table 1**  
**ILLINOIS CENTURY NETWORK**  
**Fiscal Year 2003**  
**Expenditures as of May 31, 2003**

<b>REVENUE SOURCES:</b>	<b>APPROVED AT 6/12/02 PC MTG</b>	<b>YEAR-TO-DATE</b>
ICN Appropriation:	25,500,000	25,500,000
ISBE FY02 Appropriation Balance:	0	171,914
E-Rate Reimbursement:	6,461,655	381,701
Cost Recovery Funds:	1,200,000	1,588,994
Interest on Trust Fund:	0	26,880
<b>TOTAL REVENUE:</b>	<b>33,161,655</b>	<b>27,669,489</b>
<b>EXPENDITURES:</b>		
Personnel:	4,065,954	3,510,028
Contractual:	1,133,200	845,597
Commodities:	91,800	53,703
Equipment:	61,500	47,197
Telecommunications:	26,872,632	17,675,951
Operation of Automotive Equipment:	0	0
Prompt Payment (Interest)	0	22,810
Regional Technology Centers:	936,569	483,705
Build Out:	0	124,758
<b>TOTAL EXPENDITURES:</b>	<b>33,161,655</b>	<b>22,763,749</b>

**Table 2**  
**ILLINOIS CENTURY NETWORK**  
**Fiscal Year 2004**  
**Preliminary Budget**

<b>REVENUE SOURCES:</b>	
ICN Appropriation:	25,500,000
E-Rate Reimbursement:	1,752,159
Cost Recovery Funds:	2,000,000
<b>TOTAL REVENUE:</b>	<b>29,252,159</b>
<b>EXPENDITURES:</b>	
Personnel:	3,934,231
Contractual:	1,063,975
Commodities:	62,300
Equipment:	22,500
Telecommunications:	23,809,153
Operation of Auto:	10,000
Prompt Payment Interest	250,000
Permanent Improvements	100,000
<b>TOTAL EXPENDITURES:</b>	<b>29,252,159</b>

#11.5 Teacher Success

HB 2700  
HB 2750

Item #6
June 18, 2003

ILLINOIS CENTURY NETWORK  
STATENETS ANNUAL MEETING

**Submitted for:** Information

**Summary:** Staff from the ICN recently attended the 5<sup>th</sup> annual meeting of the StateNets organization, a working group of Educause. This item serves to update the Policy Committee on the issues facing statewide educational networks that were discussed at the meeting.

**Action Requested:** None.

ILLINOIS CENTURY NETWORK  
STATENETS ANNUAL MEETING

Representatives from the Illinois Century Network joined representatives from 26 other states at the fifth annual "Gathering of State Networks" meeting held earlier this spring. Distinguished panels of presenters led the group in a number of discussions dealing with the myriad of issues impacting statewide educational networks.

Among the topics covered at the meeting were a federal legislative update, covering E-Rate and other political trends affecting K20 networking; network security issues and developments; an update on the Internet2 K20 initiative, of which ICN is a member; and a panel discussion on developing and maintaining services in lean times. The ICN actively participated in the panel on network services. There was a great deal of interest in the process and approach that the ICN has taken in making decisions to roll out new services. The process was lauded for its checks and balances and the efforts taken to make sure that services are only made available in response to constituent needs and where the cost savings available through aggregate purchasing enable both the network and the constituents to spend less for services.

As an offshoot of the discussions held at the meeting, the ICN will be working with three other contiguous Midwest states to determine ways to facilitate communication among the constituents served by the networks who have common needs. The first area of exploration will be regional response to homeland security and bio-terrorism events. As the largest network of its kind in the nation, with more connections than any other statewide educational network, the ICN plays a key role in the StateNets organization and benefits from being able to share experiences and expertise with other statewide networks.

ILLINOIS CENTURY NETWORK  
**NETWORK AND SERVICES UPDATE:  
SERVICES AND OUTREACH**

**Submitted for:** Information

**Summary:** The ICN continues to respond to constituent and network needs by introducing new services that have undergone a thorough technical and fiscal evaluation by ICN staff. This item serves to provide an update on new services and other outreach activities undertaken by ICN staff.

**Action Requested:** None.

ILLINOIS CENTURY NETWORK  
**NETWORK AND SERVICES UPDATE:  
SERVICES AND OUTREACH**

REMEDY ACTION REQUEST SYSTEM

In April 2003, ICN implemented a new administrative system called Remedy Action Request System. This system was developed to streamline and enhance ICN administrative functions even further. ICN has been able to centralize data and eliminate the need to use multiple, redundant, external systems for data collection and tracking. The Remedy Action Request System allowed ICN to integrate administrative and technical data needed to best serve ICN constituents. Additionally, the Remedy Action Request System was used to create a customized issue-tracking module that was essential in the implementation of the new 24x7 Network Operations Center.

SERVICING SPECIAL NEEDS

Danville Schlarman High School has been connected to ICN for more than two years. The technical coordinator of this school contacted ICN in spring of 2003 to inquire about additional ICN services to accommodate a unique situation with an innovative solution.

There is a young man attending the school as a freshman beginning in fall of 2003. This young man is physically handicapped and attending high school in a traditional manner would be very difficult for him. Danville Schlarman High School has been working with a grant to obtain IP (Internet Protocol) video equipment that can be wheeled from classroom to classroom, thus allowing this student to participate in all of his classes without having to leave his home. ICN will be working with the local telephone company to provide connectivity from Danville Schlarman High School to this student's residence, which will enable the student to continue his education through distance learning opportunities via IP video.

ILLINOIS HEALTHCARE

ICN staff has been working with the Illinois Hospital Association to launch the Illinois Healthcare Broadband Communications Network (IHBCN). The goal of the IHBCN initiative is to provide a high-speed communications network that will link the IHA, all Illinois hospitals, and other healthcare providers to one another via the ICN for the purpose of enhanced patient services and professional development for medical personnel throughout the state.

## QUALITY OF SERVICE

In April 2003 ICN launched IP Quality of Service (QoS). A QoS configuration has been implemented on the ICN network to minimize latency, classify constituent traffic at the access router, and police constituent traffic to ensure an equitable allocation of resources. This service is beneficial to constituents that use the ICN for delay sensitive applications such as IP video.

## MULTICAST

In April 2003 ICN launched an IP Multicast service. Multicast is a transmission of data from one source to many destinations, and is used for streaming video and other bandwidth intensive applications. ICN provides the installation of a configuration on the constituent's network router, along with an avenue to download the Cisco IPTV multicast viewer. Channels such as CSPAN, PBS, NASA, Department of Defense, and the Smithsonian are among the hundreds of available channels available to constituents that are setup to receive multicast data transmission.

## ANTI-VIRUS RFP

ICN staff has recently posted a Request for Proposal for anti-virus software in an effort to secure favorable pricing to benefit ICN constituents. The need for this software is universal. Virtually all networked computers should have anti-virus software installed to protect them from malicious code that is continually being produced and disseminated. By utilizing the collective buying power of ICN constituents, the staff believes that substantial discounts can be realized. Helping constituents save money on essential purchases is especially important during these difficult economic times.

## FILTERING

ICN Centralized Filtering is now serving approximately 25 constituents and over 12,700 host computers. The delegated administration feature offered by the ICN allows each constituent to make his or her own choices regarding the web content to be blocked or allowed at that institution. ICN's implementation of filtering has been featured nationally by our vendor (N2H2) as an example to other state networks. N2H2 is the world's leading supplier of filtering software for the educational market. The ICN plans to dramatically expand the service in the coming year. If successful, the increased purchasing volume will eventually result in lower costs to the ICN. As costs are reduced, the savings will be passed on to constituents.

## DIGITAL DIVIDE

The ICN has been asked to contribute to a legislative subcommittee seeking to increase the availability of high-speed Internet services (broadband), to underserved areas in Illinois. The ICN has submitted an analysis of the problem and made recommendations to the subcommittee. The ICN has also identified emerging technologies that have the potential to make broadband services economically viable in less densely populated areas of the state.

ILLINOIS CENTURY NETWORK  
**NETWORK AND SERVICES UPDATE:  
MULTI-PROTOCOL LABEL SWITCHING IMPLEMENTATION**

**Submitted for:** Information

**Summary:** The ICN has recently migrated to a new routing protocol, Intermediate System-Intermediate System (ISIS). This technical migration is necessary to support Multi Protocol Label Switching (MPLS) which will improve the efficiency of the ICN and change the way that constituents can use the network. This item describes the advantages and necessity of this migration.

**Action Requested:** None.



## ILLINOIS CENTURY NETWORK

### **NETWORK AND SERVICES UPDATE: MULTI PROTOCOL LABEL SWITCHING IMPLEMENTATION**

The Illinois Century Network (ICN) is always changing, growing, and working. Some changes like the development of Internet Protocol Quality of Service (QoS) and Internet Protocol multicast are visible to constituents. However, most of the changes on the ICN are never seen by our constituents. One such change is the recent migration of the ICN's Interior Gateway Protocol (IGP). An IGP enables an Internet Protocol (IP) router to share information about its connected constituents with other IP routers on the ICN. This sharing is needed in order for all ICN constituents to be able to speak with one another.

From the time it was started 7 years ago until May 15, 2003, the ICN used an IGP that, although functional, had several problems. Those problems included:

- The protocol was notoriously unstable, often misdirecting or losing customer data due to software bugs.
- The protocol was vendor proprietary, tying the ICN to one vendor. The ICN was dependent solely on that vendor for support and service. It also meant there was no well defined standard as to how the protocol would behave.
- The protocol lacked support for many features that the ICN wished to use.

Early last year the ICN began planning to change IGP's from the current vendor proprietary protocol to an open protocol called Intermediate System-Intermediate System (ISIS). IGP protocol migrations are known to be notoriously tricky, and the ICN's change was no exception, taking almost a year of work during the weekly Saturday midnight outage windows to complete.

The new protocol has many advantages over the old that, while not immediately visible to the customer, will shape the network the ICN will become in the years ahead. Some of those advantages include:

- A large number of users use ISIS. ISIS is used by most of the world's largest Network Service Providers. ISIS is the most well used and well tested IGP in use today.
- ISIS is an open standard maintained by the Internet Engineering Task Force and not tied to any one vendor.

- ISIS has complete support for IP version 6, used on Internet2 and other next generation networks. The network is now ready when those services become available to the ICN.
- ISIS can carry special information to assist in the deployment of multi protocol label switching (MPLS). MPLS will revolutionize the way the ICN is used, allowing constituents to carry data over the ICN in virtual Ethernets allowing them to extend local LANs anywhere in Illinois. The ICN will begin MPLS deployment in June 2003.
- ISIS has the added benefit of being able to route around link failures much faster than the previous IGP. When a backbone link fails due to telephone company issues like fiber cuts, our constituent data will be routed around the failure faster than previously possible. After a fiber cut it used to take several minutes for this rerouting to occur, the new IGP is able to do this same work in less than a second.

While customers won't see an immediate benefit from this work, the engineering staff at the ICN is very proud of this recent accomplishment and is happy to have passed another mile stone on the road to providing world-class service for the Illinois Century Network constituents.

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**EXECUTIVE SESSION**

**Submitted for:** Information

**Summary:** A closed executive session is requested for the purpose of discussing personnel issues.

**Action Requested:** None.

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**EXECUTIVE SESSION**

The Policy Committee will meet in Executive Session today. Under the Open Meetings Act, there must be a motion adopted in open session to authorize an Executive Session. A quorum must be present, and the motion must be approved by a majority of the quorum with a recorded vote. A quorum is present. I would now ask if we could have a motion and a second to authorize an Executive Session, as follows:

“I move that the Policy Committee go in to closed Executive Session at \_\_\_\_\_ p.m., Wednesday, June 18, 2003 for the purpose of discussing Illinois Century Network personnel issues pursuant to Section 2(B)(1) of the Open Meetings Act.