

ILLINOIS CENTURY NETWORK

POLICY COMMITTEE MEETING AGENDA

November 13, 2002

2:00 p.m.

**ILLINOIS CENTURY NETWORK
POLICY COMMITTEE
MEETING AGENDA
November 13, 2002
2:00 p.m.**

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ILLINOIS CENTURY NETWORK

SEPTEMBER 25, 2002 POLICY COMMITTEE MINUTES

Submitted for: Action

Summary: Distribution of the September 25, 2002 minutes for review by the Policy Committee.

Action Requested: Adoption of the September 25, 2002 minutes.

Recommended Motion: *That the ICN Policy Committee adopts the September 25, 2002 minutes with any edits as noted.*

ILLINOIS CENTURY NETWORK

SEPTEMBER 25, 2002 POLICY COMMITTEE MINUTES

The meeting was called to order by Mary Reynolds.

Members present: Bruce McMillan, State Museum; Mary Reynolds, Governor's Office; Lugene Finley, Illinois State Board of Education; Dan Layzell representing Dan LaVista, Illinois Board of Higher Education; Todd Jorns representing Joe Cipfl, Illinois Community College Board; and Alice Engle representing Michael Schwartz, Department of Central Management Services.

Others attending included: Ron Sanderson, CMS; Deborah Seale, SIU School of Medicine; Neil Matkin, Lori Sorenson, Lynn Murphy, Cindi Hitchcock, Karlin Sink, and Rebecca Dineen all from the Illinois Century Network.

1. Policy Committee Minutes

Staff requests the adoption of the July 31, 2002 meeting minutes.

Motion: Dan made the motion; Lugene seconded.

Dan moved that the ICN Policy Committee adopt the July 31, 2002 minutes with any edits as noted. (No edits were noted.)

Motion carried.

2. Announcements

Mary discussed the terrorism taskforce, which was established by Governor Ryan in May 2000. It is comprised of every state agency related to public safety and others including local law enforcement, emergency and fire departments at the county and municipal levels. It is a large taskforce that operates largely by committees. The taskforce has asked Mary to assemble an Information Technology (IT) committee that was formed officially last month. The group met for the first time last week and the ICN was represented at that meeting. The most important issue before the IT committee and another committee, the Integrated Justice Committee, is infrastructure. A statewide infrastructure that is able to connect any entity in a local community with the appropriate public safety facility is essential and a top priority of both committees.

The Illinois Century Network has become a critical component in these efforts and it will only expand further in terms of the ability of local entities within the local governments to connect. The ICN could also play a critical role in the communications systems for integrated justice on the local level.

The Midwest Technology Access Group (MTAG) is going to hold a meeting next week in Champaign to talk about digital divide issues and what the state should be doing to further reach those areas. MTAG has a number of interests in the higher education and community college communities, and contains both public and private members. As a result of this group's work, the ICN could see additional growth in areas that need to be covered, including a renewed interest by eligible nonprofit constituents.

Neil pointed out that the ICN had also been contacted by the Federal Emergency Radio System regarding the possibility of the ICN to function as a backup for emergency radio signals in the event that some radio towers were not operational.

Mary responded that there was also a communications committee on the terrorism taskforce that is concerned with the radio system and has discussed creating a redundant system for backup. These two groups may be able to collaborate their efforts.

Mary introduced another item before moving to the Director's remarks regarding Michael Schwartz's service and dedication to the ICN and its Policy Committee. Mary read the following resolution aloud:

We, the Illinois Century Network Policy Committee, congratulate Michael S. Schwartz for his tireless efforts to further public services to the citizens of Illinois - and particularly, his efforts to further the Illinois Century Network on behalf of Illinois students. With the contributions of Michael's leadership and guidance, the Illinois Century Network has been recognized as the most successful education network in the nation. Michael's dedication to education has been evidenced throughout his career beginning with his role as a public school teacher and continuing through his service to Illinois government. Michael's legacy to Illinois as the longest serving Director of the Department of Central Management Services has greatly benefited state agencies, the State's employees, and all facets of education. With the successful operation of the Illinois Century Network, impediments such as distance and time are evaporating and educational opportunities expanding. Ultimately, educational attainment and the economic well being of the state will benefit from his efforts. It is, therefore, with deep gratitude and respect for his record of accomplishments - that far surpass the creation and success of the Illinois Century Network - that we, the members of the Illinois Century Network Policy Committee, applaud and honor Michael S. Schwartz for his steadfast commitment to willing collaboration and unsurpassed leadership.

Bruce moved; Lugene seconded.

Resolution passed.

3. Remarks

Neil provided an update on recent discussions with the Illinois Hospital Association (IHA). The IHA originally had a federal technology plan that called for the creation of a separate hospital network; however, at a meeting it was discovered that several hospitals were already connected to the ICN. Consequently, the ICN is in fairly advanced conversations with the IHA in regard to connecting their members onto the ICN network. The IHA requires very stringent security measures; the biggest obstacle in connecting to any network is complying with HIPPA standards. These are extraordinary industry/national standards that have been devised to ensure security in the medical field. Upon external review, it was found that the ICN is able to comply with those standards. Segments of the network have been tested and only moderate changes would be required. The hospitals are excited to work with the ICN and the ICN staff believes it will be an extraordinarily positive relationship for all involved.

The staff is also having conversations with the Illinois Municipal League and is working with municipalities. These conversations bring to light several issues that the Policy Committee will need to examine in future meetings. Those issues include who can connect through their municipal wide area networks and who can connect to the ICN in relation to the issue of public and private partnership, for-profit and not-for-profit connections. To date, the general test used to answer these questions was "How does this benefit Illinois education?" However, there are long term public policy issues that this group will have to address and the staff is already working to prepare some materials that they hope will be available by November or shortly after.

Neil distributed a schedule of the next four Policy Committee meetings (including the meeting today) in September, November, February 2003 and June 2003.

Neil commented that the ICN was recognized in a networking article. The network received national attention after eight respondents included the ICN in their answers on a network questionnaire. The ICN was the only non-commercial provider mentioned.

Lastly, Neil updated the Policy Committee briefly on dark fiber efforts. The staff is now in possession of responses to a request for proposal that provides dark fiber routes including state-owned fiber through the majority of the network. Approximately three major links and two minor links are the only links not yet available. As discussed in prior meetings, dark fiber is key to the long term sustainability of the ICN. As the network moves further into IP video and other offerings, the staff has seen the demands on network resources increasing. The staff has barely been able to keep ahead of demand and operate with reliability.

The network has had a flat budget over the past three years, but the staff has been able to decrease expenses as a result of direct procurement and other efforts enabling the network to maintain this small advantage and stay ahead of demand.

A dark fiber network increases the size of the backbone throughout the majority of the network by 16 times, at the same cost of the current OC12 network over a five-year

period. This means that when the Illinois CSPAN station wants to broadcast across every university they will have the ability to do so; there would be adequate bandwidth. This project represents a good team effort between the ICN and CMS. Neil will continue to update the Policy Committee on the progress.

4. Fiscal Year 2002 Budget - Final

Neil introduced Cindi Hitchcock, ICN Fiscal Officer.

Cindi presented the final budget report for fiscal year 2002 (FY02). The revenues total \$28,249,711 of which \$15 million was the IBHE appropriation and \$10,328,086 was the ISBE appropriation. Cindi noted that ISBE did not have to pay a \$171,914 bill relating to the ICN as anticipated, and that money was forwarded to the ICN after June 30, 2002. The entire \$10.5 million ISBE appropriation was received. The cost recovery revenues included billings to the Metropolitan Pier and Exposition Authority as well as IVEN billings. No e-rate monies were received in FY02, but those should be received in fiscal year 2003 (FY03). The ICN does expect two e-rate payments in FY03, although there is no guarantee that the funds will be received. Expenditures totaled \$27,220,792. Staff had anticipated an additional \$375,000 for equipment, but that was not received by the end of the state lapse period. That expenditure will be reflected in FY03 and the equipment has since been received. Telecommunication costs were somewhat lower than originally budgeted because the staff re-negotiated several contracts, provisioned key circuits, and put several equipment orders on hold due to the budgetary concerns in the State of Illinois. The staff asks that the Policy Committee approve the final fiscal year 2002 budget.

While the additional monies transferred by ISBE will appear on the FY03 budget, Lugene asked that a notation be added to this budget that ISBE had fulfilled its commitment to the ICN. This note will be added to the FY02 final budget.

Mary questioned the fiscal year that the money should appear in. Cindi responded that the money was in transit on the cut-off date and is considered a due-to, due-from item. Both the ICN and ISBE are in agreement with the transfer and the fiscal year reporting.

Neil distributed the monthly Policy Committee budget reports and explained the budgetary impact of the Regional Technology Centers (RTC). There are still RTC grants paying for the leases and some local equipment lines, but all RTC personnel are now included in the ICN personnel line, which saved a considerable amount of money and allowed for continued operation in a flat funding situation. This is the reason a zero sum is reflected in the adjusted projection.

Mary commented that the RTCs are not gone; they were simply moved to another line item.

Motion: Dan made the motion; Lugene seconded.

Dan moved that the Policy Committee approves the final fiscal year 2002 budget report with Lugene's edits.

Motion carried.

5. Policy Committee – Action History

At the last meeting, the staff was asked to start reviewing administrative rules for the ICN. As a beginning step in that process, the staff reviewed and summarized all of the motions passed by the Policy Committee. Neil distributed the summary of the motions by subject in date order. The staff will summarize motions on an annual basis and some of those motions will represent the ICN Policy Committee operating rules, as required by the Joint Commission of Administrative Rules (JCAR). The staff is working with legal counsel to ensure compliance with JCAR as necessary.

Neil provided clarification as to which operating procedures have to go through JCAR. There are administrative rules that are operating procedures, but not all of them require JCAR action. Neil has asked legal counsel to outline specific conditions that would require the rules to go to JCAR. Generally, those items that have to go through JCAR affect external parties or external constituents. In terms of internal organization and administration of this body, those items have to be filed with JCAR, but do not require JCAR approval. The staff is drafting materials that will need to be presented to JCAR and may have those materials to share with the Policy Committee in November, although that timeframe could be impacted by the cost recovery meetings in September and October and may be delayed.

Mary commented that it would be helpful to the Policy Committee, especially new members, to have a clearer picture of established procedures as soon as possible. Neil responded that the staff had this same thought in mind when compiling the motions.

Lugene noted that there are two ISBE staff members that work specifically on JCAR materials and he will talk with Neil regarding those individuals.

6. Fall 2002 Regional Information Sessions

Lynn noted that these meetings are being held for several reasons. Upon implementation of cost recovery, the ICN promised the constituents that the staff would communicate any changes or revisions for the next fiscal year allowing time for budgetary planning and adjustments. The staff will also communicate with constituents about rolling out services. The meetings begin September 26th and continue through October 8th. Meeting packets were distributed to the Policy Committee. The main discussion points will be ICN services, cost recovery policy, an overall update of the network, future of the network, and regional user groups.

Lynn called everyone's attention to the tri-fold brochure in the packets. It is a new piece that the staff developed and sent to all the legislators to keep and have available for their

constituents. It explains what the ICN is, what we do, and how to contact the staff for more information. Lynn thanked Beth Aper and the staff for putting the brochure together. The ICN staff will send 25 brochures to each Policy Committee member.

Mary commented that the brochure already needs to be updated to read 5,700 connections. Neil noted that several legislators requested the brochure and it has generated several questions.

Mary suggested that there would be a fairly large turnover in the general assembly in November, taking office in January. The ICN staff will need to educate not only a new Governor and cabinet, but also the new members of the general assembly. Mary also suggested that the legislative summaries listing constituents by district created last year would also be a good educational tool. The new districts would have to be taken into consideration. These materials would need to be available in February.

Neil commented that the cost recovery materials in the packets are being presented to the constituents in order to solicit input before they are brought to the Policy Committee. These materials are essentially a preview of what will be brought to the Policy Committee at the November meeting.

Bruce raised a concern at the small number of museums connected to date and suggested that he might sit down with members of the ICN staff and discuss strategies on connecting more museums. Neil commented that he was also concerned. Although there were still some database glitches and the number presented may not be accurate. Lori noted that some museums also have multiple sites connected. The RTC staff has been encouraged to contact all primary constituents in their areas to determine why they are not connected and this is currently being done. However, Neil agreed that examining a strategy was a good course of action in addition to these efforts.

Alice provided an update on the statewide network contract with AT&T and Ameritech that has been signed. The effective date was September 15th and it represents the bulk of all CMS services: voice services, the frame relay network, and the future point-to-point service. CMS is starting the negotiation process with Sprint and the target effective date for that contract will be October 15th. Sprint was awarded the existing point-to-point circuits and future OC services, OC3 and above. However, recognizing the industries rapid rate of change, large circuits may not be ordered directly off the contract if a better price can be found through bids.

Neil updated the Policy Committee briefly on the Illinois Online Leadership Council (IOLC). The IOLC was extraordinarily successful in its first year, but the second year was not as successful.

The organization of the IOLC was designed to try to help the online initiatives coordinate better to avoid duplication, to collaborate on grants, and to combine ideas to insure the group is addressing some of the looming statewide public policy issues. On September 6, 2002, the group elected Lynn Murphy as the Chairman of this group for the next year.

The group has decided it would like to parallel the Advanced Engineering Taskforce and create a statewide public policy report that addresses application and content issues.

8. Executive Session

Motion: Dan made the motion; Bruce seconded.

Dan moved that the Policy Committee go into closed Executive Session at 2:55 p.m., Wednesday, September 25, 2002 for the purpose of discussing Illinois Century Network personnel issues pursuant to Section 2(B)(1) of the Open Meetings Act.

Motion carried.

9. Resume meeting

The meeting resumed at 3:20 p.m. No action was taken as a result of the executive session.

Motion: Todd made motion; Dan seconded.

Todd made the motion to adjourn.

Motion carried.

Meeting adjourned at 3:25 p.m.

ILLINOIS CENTURY NETWORK

**COST RECOVERY:
FISCAL YEAR 2003 REVIEW**

Submitted for: Information

Summary: The cost recovery model approved the ICN Policy Committee on November 29, 2001. This created a comprehensive policy and provided guidelines for allocation of state appropriations. The policy also outlined the collection of necessary fees designed to ensure continued provision of services as demands upon the network increased. ICN staff has implemented this policy and began invoicing constituents accordingly. This item provides cost recovery figures for the first quarter of fiscal year 2003.

Action Requested: None.

ILLINOIS CENTURY NETWORK

**COST RECOVERY:
FISCAL YEAR 2003 REVIEW**

The cost recovery model approved the ICN Policy Committee on November 29, 2001. This created a comprehensive policy and provided guidelines for allocation of state appropriations. The policy also outlined the collection of necessary fees designed to ensure continued provision of services as demands upon the network increased. ICN staff has implemented this policy and began invoicing constituents accordingly.

Monthly invoices for the first quarter of fiscal year 2003 have been mailed to constituents. The table below shows the monthly and quarterly totals for each constituent sector.

Table 1
Fiscal Year 2003 Invoices
(First Quarter)

Sector	July	August	September	Quarter Totals
Municipal Governments	32,020	33,062	32,470	97,552
Other (not-for-profits)	26,478	26,872	29,142	82,491
Public Colleges & Universities	20,100	19,875	36,291	76,266
Private Colleges & Universities	20,613	22,637	24,212	67,462
Healthcare	16,106	17,156	16,782	50,044
Community Colleges	4,050	4,050	4,050	12,150
Libraries	1,575	1,800	1,875	5,250
Museums	975	975	975	2,925
State Agencies	675	675	1200	2,550
Special Education Facilities	825	825	825	2,475
Public K12 Schools	170	170	170	510
TOTALS	\$123,587	\$128,097	\$147,991	\$399,674

The original estimate for cost recovery receipts for fiscal year 2003 was \$1.2 million. Staff anticipated that demand for bandwidth would decrease slightly as a result of the cost recovery policy. This has proven true for non-education constituents, however, education constituents have continued to increase bandwidth purchasing more than expected. Currently, the ICN is on track to recover \$1.5 million in fiscal year 2003 noting that the last month billings in the fiscal year are due during the first month of the next fiscal year. The advent of deep discounts on tariffs in SBC/Ameritech territories for non-education constituents and the

pending partnership with Illinois healthcare providers will likely result in an increase in cost recovery revenues for the last quarter of fiscal year 2003 and on into fiscal year 2004.

It is important to understand that cost recovery funds do not represent “new” income to the ICN and the funds are correlated directly to increased expenditures necessary to meet growing demand. As trends become concrete, the staff will present revised budget figures for fiscal year 2003.

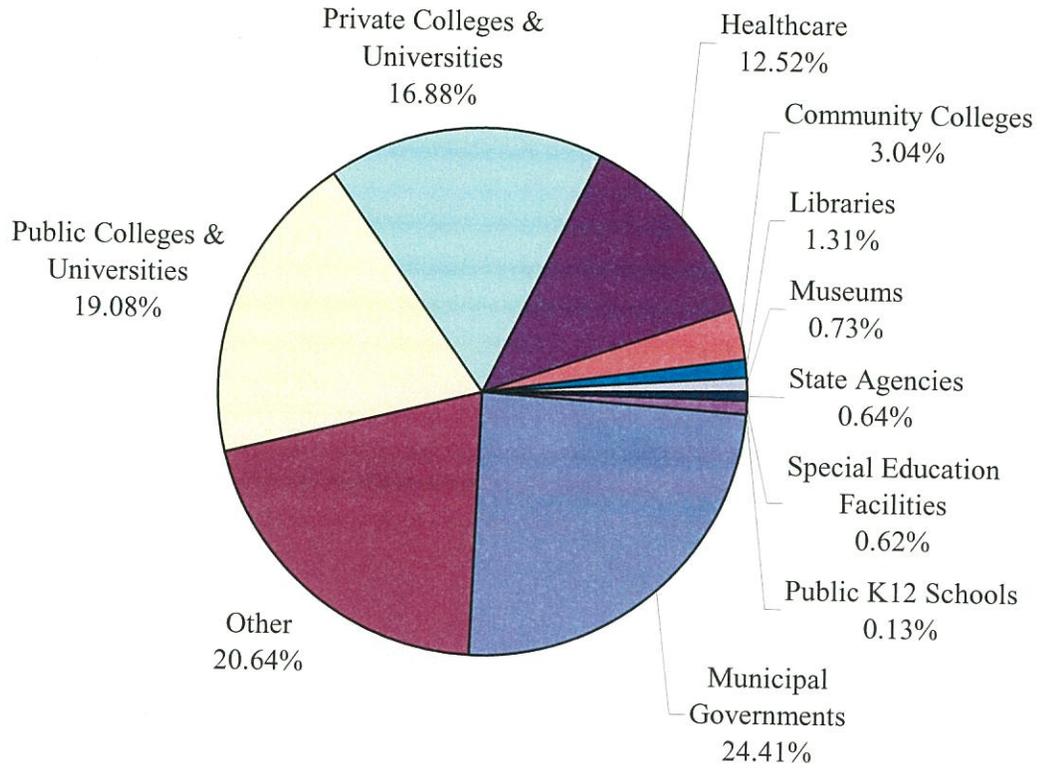
The introduction of the cost recovery policy has dramatically changed the impact of increased participation in the network in myriad ways. For example, instead of exhausting limited network recourses, as would have been the case prior to cost recovery, new participants (mainly non-education constituents) provide necessary funds to replenish hardware, egress and circuits. The result is an increase in overall network capacity that benefits all ICN constituents.

An interesting note, and somewhat unsung (but not for much longer), is the dramatic savings most ICN constituents recognize by participating in network offerings from the ICN. The most dramatic of these is the K-12 example. Note that all K-12 schools – both public and private – pay a total of only \$170 per month in cost recovery charges. These particular charges are not for port fees or bandwidth; the entire amount is paid to the ICN for use of colocation facilities by Champaign and Urbana school districts. Co-location provides a substantial benefit to these schools. For example, the Urbana School District was planning to create a private WAN to provide centralized services for their schools. Through the use of co-location, savings of over \$68,000 were recognized for this year and an additional \$27,000 for each year after. Obviously, the \$130 per month that is paid for co-location is money well spent.

Another impact of cost recovery has been better management and control of resources. A case in point would be student residence halls. When bandwidth was “free” there were few incentives to put restrictions on bandwidth allocations. By clearly stating what is provided by the state appropriation and charging for bandwidth beyond the available allocation, residential institutions had strong incentives to monitor and shape bandwidth offerings reserving more available bandwidth for instructional needs.

The following pie chart shows a graphical representation of the preceding cost data.

**First Quarter Cost Recovery by Category
(Fiscal Year 2003)**



ILLINOIS CENTURY NETWORK
**COST RECOVERY:
FISCAL YEAR 2004 ADJUSTMENTS**

Submitted for: Action

Summary: As stipulated in the Cost Recovery Policy approved by the Policy Committee on November 29, 2001, ICN staff has made its annual review of cost recovery baselines and fees. ICN staff proposes fee reductions to reflect ICN's successful efforts to reduce costs and improve efficiency. ICN staff also proposes minor revisions in the formula used to calculate baseline bandwidth to more fairly allocate the bandwidth provided to primary constituents and the creation of ICN Certified Content Partner Program.

Action Requested: That the Policy Committee adopts the proposed revisions to the cost recovery model.

Recommended Motion: *Recommended Motion: The Illinois Century Network Policy Committee adopts the proposed revisions to the cost recovery model as presented.*

ILLINOIS CENTURY NETWORK
**COST RECOVERY:
FISCAL YEAR 2004 ADJUSTMENTS**

As approved by the Policy Committee at its November 29, 2001 meeting, the ICN Cost Recovery Policy requires ICN staff to conduct an annual review of baseline bandwidth allocations and cost recovery charges. ICN staff has reviewed the current policy and analyzed current and projected costs. As a result, this item presents staff recommendations for suggested revisions. In addition, staff has listened to numerous suggestions from constituents through public meetings held throughout the state as well as informal e-mail and conversations throughout the year. This constituent input has resulted in other specific revisions required to ensure fairness and uniformity of the cost recovery policy. The staff therefore proposes the following revisions to the Cost Recovery Policy for implementation effective July 1, 2003 (fiscal year 2004) unless otherwise noted.

1. REDUCE PORT CHARGES FROM \$75 TO \$55 PER MONTH TO REFLECT LOWER OVERALL COSTS.

Eighty-seven percent (87%) of all ICN constituents connect to the network via channelized CT3 circuits leased from the telecommunication providers by the ICN. What this means in layman's terms is that the ICN purchases a part of the local loop required to connect constituents to the ICN Point of Presence. A CT3 circuit provides connectivity for up to 28 separate T-1 circuits. The ICN currently absorbs the cost for these circuits for primary constituents connecting at or below allocated baseline levels. Non-primary constituents are charged a port fee for each circuit used.

At the time the current cost recovery model was approved, these circuits cost the ICN an average of approximately \$75 per port. This is the fee the ICN has been passing on to non-primary constituents. Since that time, the ICN has negotiated discounts on these circuits and has filled much of the previously unused capacity. As a result, the average cost per circuit is now approximately \$55 per port.

Staff proposes that this change become effective January 1, 2003.

2. REDUCE BANDWIDTH PRICING.

The proposed revisions to bandwidth pricing reflect ICN efforts to reduce costs and pass on net savings to constituents. The ICN has received favorable pricing on recent contracts for Internet egress. In addition, most of the circuits used to provide the ICN

backbone are currently being renewed at significantly reduced rates. While some of the reductions are not yet realized, the ICN anticipates that contracts will be finalized within months and will result in lower ICN costs for connectivity in the next fiscal year. Table 1 illustrates the proposed costs for bandwidth for Fiscal Year 2004.

**Table 1
Fiscal Year 2004 Bandwidth Pricing**

Bandwidth Provided	Fiscal year 2003 Cost per Mbps	Fiscal Year 2004 Cost per Mbps (Proposed)
Less than 10 Mbps	\$300	\$250
10-24 Mbps	\$225	\$225
25-44 Mbps	\$225	\$200
45-99 Mbps	\$175	\$175
100 Mbps and above	\$175	\$150

It should be noted that prices below the top rate of \$250 per megabit per second (Mbps) are for a single circuit to the ICN Point of Presence. This price structure reflects the fact that large circuits are more efficient and thus cost the ICN less (per Mbps) to set up, monitor and maintain than multiple smaller circuits. The efficiency of larger circuits is recognized in the industry and priced similarly, with significant discounts for large volume circuits to reflect volume discounts afforded to the ICN.

3. SHARE VOLUME DISCOUNTS WITH ALL ICN CONSTITUENTS.

The ICN recovers costs by charging back the actual costs incurred by the ICN in providing services. As a result, it is appropriate that the ICN pass on volume discounts to non-primary constituents. At the present time, only the City of Chicago will be impacted by this change, however, over time these discounts will impact a larger number of constituents.

4. REVISE THE FORMULATION OF BASELINE BANDWIDTH PROVIDED FROM STATE APPROPRIATED FUNDS.

All primary constituents (K-12 schools, community colleges, colleges and universities, libraries and museums) currently receive a minimum of 1.5 Mbps of baseline bandwidth (the amount of a single T1). Schools and Higher Education facilities receive additional bandwidth based on actual head count or full time equivalent (FTE) enrollment, as reported by their authorizing agency.

The current formula for calculating baseline bandwidth has large gaps that do not provide sufficient incremental bandwidth allocations. The new formula addresses this concern by providing additional bandwidth at smaller incremental increases in headcount enrollment or FTE. Staff proposes that primary constituents receive 1.5 Mbps for every 1,000 students to 13,000 enrollments or FTE and an additional 1.0 Mbps for every 1,000 from 14,000 to 22,000 enrollments or FTE. The enrollment/FTE scale will be capped at 22,000 (10,000 above the fiscal year 2003 cap). Adoption of this revision lowers the barriers for primary education constituents to increase bandwidth in support of current education applications.

The handful of institutions that would receive a decrease in bandwidth allocation as a result of the new formulation will be grandfathered at current levels. Libraries and museums that provide content will be eligible to apply for status as a Certified Content Partner (discussed in the next item). Table 2 provides summary details.

Table 2
Proposed Baseline Bandwidth Calculation Revisions
(Fiscal Year 2004)

	Enrollment or Full Time Equivalent (FTE)			
	Less than 1,000	1,000-13,000	14,000-22,000	Additional Bandwidth Costs
K-12 Schools, Community Colleges, Colleges and Universities Baseline Bandwidth	1.5 Mbps	1.5Mbps per 1,000 Enrollment or FTE	1.0 Mbps per 1,000 Enrollment or FTE	Purchase at FY2004 Cost Recovery Rates
Total Bandwidth	1.5 Mbps	3-21 Mbps	22-30 Mbps	Over 30 Mbps
Libraries and Museums	1.5 Mbps baseline bandwidth plus consideration for additional bandwidth or collocation services as a Certified Content Partner			
All non-primary constituents	Bandwidth, port charges, and services at ICN cost			

Table 3
Sample of Impact Based on K12 Enrollment Figures
(Fiscal Year 2004)

School Enrollment (or FTE)	Current Baseline	Suggested Revision
138	1.5	1.5
1,185	3	3
2,115	3	4.5
3,171	6	6
5,944	6	9
6,362	12	10.5
7,352	12	12
8,426	12	13.5
9,390	12	15
10,825	12	16.5
11,986	12	18
12,577	20	19.5
15,387	20	23
18,782	20	26
27,399	20	30
36,767	20	30

5. CREATE AN ICN CERTIFIED CONTENT PARTNER PROGRAM TO ALLOW PROVISION OF ADDITIONAL BANDWIDTH OR COLOCATION SERVICES TO MUSEUMS, LIBRARIES, OR OTHER CONTENT PROVIDERS THAT MEET ESTABLISHED CRITERIA.

The ICN seeks to provide a network environment that encourages and promotes high quality, shared content for use by Illinois education. As such, the staff has asked the statewide Advanced Engineering Taskforce and Illinois Online Leadership Council to take up the task of proposing objective criteria from which to allocate bandwidth and colocation services.

The concept of the Certified Content Partner program, first proposed by the Advanced Engineering Taskforce, was well received by ICN constituents at recent regional meetings held around the state. The ICN will seek input from a broad range of constituents in the formation of the criteria for future consideration by the Policy Committee at its February 2003 meeting.

6. PROPOSE APPROPRIATE POLICIES TO AVOID LARGE REDUCTIONS IN BANDWIDTH DURING SUMMER MONTHS.

In order to provide the most flexibility for educational constituents, the cost recovery policies currently in place require minimal commitment on the part of institutions. Currently, any institution may acquire additional bandwidth or discontinue bandwidth on a month-to-month basis. The ICN does not have the same flexibility and must procure necessary services in aggregate via multi-year contracts.

Summer 2003 will be the first summer since cost recovery policies became effective in July 2002. The potential exists for somewhat dramatic reductions of bandwidth during summer months by large-scale residential institutions. Although large residential institutions have proven "good neighbors" in the shared success of the ICN, this potential requires minor restructuring of ICN Cost Recovery policy. The recommendation of the staff is that large-scale public and private residential institutions agree to a one-year commitment when procuring additional bandwidth above the baseline allocation to coincide with the fiscal year.

Impact of Proposed Cost Recovery Revisions

ICN staff does not anticipate that the proposed reduction in fees will negatively impact the funds generated by cost recovery. Past experience and constituent feedback strongly indicates that the proposed fee reductions will be more than offset by the need for increased bandwidth from constituents already connected to the network. The budgeted amount for bandwidth will then be used to provide additional capacity. In addition, the lower cost will encourage more non-primary participants to connect to the ICN and will therefore offset the proposed reductions.

The introduction of cost recovery has dramatically changed the impact of increased participation in the network. Instead of exhausting limited ICN recourses, as would have been the case prior to cost recovery, new participants (now mainly non-primary constituents) contribute necessary funds to replenish hardware, egress and circuits. The result is an increase in overall network capacity that benefits all ICN constituents. The staff recommends approval of the Fiscal Year 2004 cost recovery revisions as presented.

Recommended Motion: The Illinois Century Network Policy Committee adopts the proposed revisions to the cost recovery model as presented.

ILLINOIS CENTURY NETWORK
FISCAL YEAR 2004 BUDGET (PROPOSED)

Submitted for: Action

Summary: This item presents the Policy Committee with the proposed fiscal year 2004 budget request. The proposal includes two budget options for consideration by the Policy Committee.

Action Requested: Approval of the staff recommendation for the proposed Fiscal Year 2004 budget, Option One.

Recommended Motion: *Recommended motion: That the Policy Committee approves the proposed Fiscal Year 2004 budget represented in Option One, in the amount of \$33,000,000.*

Alternative motion: That the Policy Committee approves the proposed Fiscal Year 2004 budget represented in Option Two, in the amount of \$31,500,000.

ILLINOIS CENTURY NETWORK
FISCAL YEAR 2004 BUDGET (PROPOSED)

During the past several years, staff has successfully negotiated lower contract prices for telecommunications services and equipment. Specifically, large scale Internet egress costs have decreased by \$118 per megabit (Mb) from \$274 to \$156, backbone circuit costs have decreased by \$73 per megabit (Mb) from approximately \$221 to \$148, and the discount for telecommunications equipment has increased from thirty-five percent (35%) to forty-two and a half percent (42.5%) with maintenance costs decreasing from fifteen percent (15%) to thirty percent (30%) from previous pricing. Overall telecommunications costs have decreased by more than fifty percent (50%) while utilization continues to increase dramatically. This will reduce overall expenditures; however, these reductions will not enable the ICN to meet demands by purchasing traditional services offered by telecommunications carriers.

As telecommunications costs have decreased, utilization on the backbone network more than doubled annually. Actual recorded trends reveal that utilization continues to grow at a rate of approximately one hundred sixty-seven percent (167%) per year. Table one illustrates the growth trends impacting backbone utilization for the highest priority circuits based on constituent needs.

Table 1
Backbone Utilization Growth Trends
Corresponding to Dark Fiber Availabilityⁱ

Backbone Circuit	Circuit Size (in Mb/s)	Sept. 2001 Peak Bandwidth (in Mb/s)	May 2002 Peak Bandwidth (in Mb/s)	Utilization Increase (in Mb/s)	Utilization Increase (percentage)	2002- 2003 (estimate)	2003- 2004 (estimate)
Chicago – Champaign	622	112	280	168	150%	700	1,749
Chicago - Peoria	622	143	280	137	96%	548	1,071
Collinsville – Champaign	622	62	81	19	30%	105	137
Peoria – Springfield	622	86	134	48	56%	208	325
Springfield – Collinsville	622	124	386	261	210%	1,195	3,706
Peoria – Bloomington	155	9	50	40	433%	265	1,416
Champaign – Bloomington	155	11	36	25	229%	118	386
DeKalb – Chicago	155	34	48	14	41%	68	96
Peoria – Macomb	45	14	34	20	138%	81	193

Funding for the Number One ICN Priority: Implementation of Dark Fiber

By lowering current telecommunications costs, the ICN is well positioned to continue expansion to serve increased bandwidth needs and begin investing in dark fiber implementation. The dark fiber evaluation team is in the final stages of reviewing proposals for the physical fiber routes and is preparing to lab test dense wave division multiplexing (DWDM) hardware necessary to implement dark fiber resources.

Staff has determined that the most critical route for the dark fiber implementation is an OC192 ring from Chicago to Peoria to Springfield to Collinsville to Charleston to Champaign to Bloomington to Chicago replacing an OC12 ring currently in operation. It is important to realize that implementation of an OC192 ring represents an increase of sixteen times current capacity. In terms of bandwidth, this is over a thousand times more bandwidth than is used today. This sounds preposterously high until one realizes that OC192 bandwidth utilization could easily be reached in under three years at current growth rates. Since the planned equipment has the capability of increasing to sixty-four times more with only incremental expense, the implementation of DWDM equipment and an OC192 ring will provide a ten to twenty year solution for Illinois networking requirements.

Based on the current responses to the dark fiber request for proposal and estimated hardware costs, staff is estimating that this core ring will cost approximately \$8 to \$10 million to implement in fiscal year 2004 and \$2.6 million annually thereafter. If the ICN does not implement dark fiber, what solution exists to meet short term bandwidth requirements? The only option available is to lease the next sized circuit offered by telecommunications providers if and when these circuits are available. The next sized circuit is an OC48 which is four times larger than the current ring. The cost to implement an OC48 leased-line solution is approximately \$5.4 million per year. It is important to understand that in some locations a one to two year build time is required to implement circuits of this capacity. Thus the dark fiber implementation has a payback period of less than three years and an expected life of at least twenty years.

Two additional routes that are considered as high priority are Chicago to DeKalb and Peoria to Macomb. These routes are required to serve all ICN constituents long term but also to address two immediate needs. Western Illinois University and Northern Illinois University are in need of high bandwidth in order to access IWIRE, I2, and other educational resources. NIU currently has an opportunity for federal grant funds in the next fiscal year if able to acquire high speed bandwidth resources. Currently, the Chicago to DeKalb route is an OC3 and the Peoria to Macomb route is a DS3, soon to be upgraded to an OC3. Staff anticipates the fiscal year 2004 cost to implement dark fiber for these two routes at \$1.2 million each and the annual costs thereafter \$300,000 each. An OC48 leased-line alternative is estimated to cost \$1.08 million annually per circuit, however, it is highly questionable if such service would be available for purchase from the telecommunications providers at any price in the next five years. Thus the dark fiber has an immediate cost savings and provides valuable bandwidth otherwise not available.

At current funding levels, the ICN can implement the core backbone ring, but not the additional routes from Chicago to DeKalb and Peoria to Macomb. Considering the importance of dark fiber in meeting constituent institutions long term bandwidth needs and the current opportunities to economically acquire dark fiber, staff recommends the Policy Committee approve an appropriation increase of almost six percent (5.88%) to support the dark fiber implementation for the core OC192 backbone ring and the two additional routes to DeKalb and Macomb.

This modest increase restores the \$1.5 million removed from the ICN budget during fiscal year 2002 and, with reallocation of current operating funds, positions the ICN to implement dark fiber resources that will accommodate long term growth in bandwidth requirements. The implementation of dark fiber ultimately saves money for the state as a whole and avoids placing undue burdens on Illinois education, municipal and state government, healthcare, and other Illinois institutions. Further, since the dark fiber implementation will create the ability to expand the network exponentially at incurring only incremental expense, the \$1.5 million investment from the state will actually yield direct and measurable savings. As conversations continue with the Department of Central Management Services to utilize the network more proactively to meet agency needs, even further aggregate savings will ensue.

Lastly, the implementation of an OC192 ring further establishes Illinois as the absolute leader in the nation for state-supported network services and enables further discussion and planning for use of the network as an economic development tool in the next eighteen to twenty-four months.

Other Budgetary Categories

Other than the telecommunications line item, all other revenue and expenditure items remain relatively the same. Notable changes can be found in the projected e-rate reimbursements, cost recovery funds, personnel expenditures, contractual expenditures, and expenditures for equipment. Please note that even with a nearly six percent (5.88%) increase in the state appropriation, the proposed telecommunications budget line is still less than the budgeted amount for fiscal year 2003. This decrease is a result of the above mentioned reductions in telecommunications costs and the economical pricing for dark fiber.

The e-rate reimbursement is estimated to be the same as fiscal year 2003 as the funds received in fiscal year 2004 are based on the ICN's telecommunications expenditures during fiscal year 2003. Note that fiscal year 2003 e-rate projection included both fiscal year 2002 and 2003 reimbursements, as the 2002 reimbursement was not received by the close of fiscal year 2002 and is anticipated to be received within the next few months.

Cost recovery funds are expected to increase nominally for existing institutions even though the number of constituents continues to increase thus driving continued demand for bandwidth. Since telecommunications costs in general have decreased at the

same time as the ICN has experienced increased demands, overall costs have been offset somewhat. Staff anticipates continued steady growth in connectivity and utilization from non-primary constituents as a direct result of the ICN's reliability, cost savings, and a new Individual Case Basis tariff that extends deep discount pricing to all ICN constituents in SBC/Ameritech territories¹.

In addition, the ICN plans to offer several services at constituent request on a cost recovery basis. The ICN management team has taken great care to stay true to the core mission of the ICN and maintain the reliable connectivity and network services that Illinois education has come to depend on. The services are intended to fill gaps not provided by other service providers and will be offered incrementally and scaled up as revenues are available to sustain the offerings.

The personnel line includes a four percent (4%) increase allowing for the possibility of salary increases in fiscal year 2004. The ICN did not administer overall raises in fiscal year 2002.

Contractual expenditures are projected to increase due to implementation of service offerings; however, these costs will be recouped by participants as a part of cost recovery.

Equipment expenditures decrease due to the additional funds spent in fiscal year 2003 to purchase an ICN van. Staff is currently investigating all mileage and travel reimbursements as well as cell phone and pager use to determine if further reductions are available.

As a result of the long term benefits to the state and the need to fulfill the state's promise of support to Illinois education, the staff recommends that the increase be considered and approved by the Policy Committee. Even though the modest increase requested by the staff will be easily offset by immediate and longer term savings to the state, the staff recognizes that the state budget may not allow even the most positive and forward thinking initiatives to be fully funded. As a result, the staff has provided an alternative motion that adopts level funding with the understanding that key dark fiber routes will be implemented over a longer period of time budget permitting.

Recommended motion: That the Policy Committee approves the proposed Fiscal Year 2004 budget represented in Option One, in the amount of \$33,000,000.

Alternative motion: That the Policy Committee approves the proposed Fiscal Year 2004 budget represented in Option Two, in the amount of \$31,500,000.

¹ The ICN staff is working with other Illinois Local Exchange Carriers in an effort to replicate this new tariff for all ICN constituents.

ILLINOIS CENTURY NETWORK
Fiscal Year 2004
Budget Options

	FY03	FY04 Option One	FY04 Option Two
REVENUE SOURCES:			
ICN Appropriation:	25,500,000	27,000,000	25,500,000
E-Rate Reimbursement:	6,461,655	4,000,000	4,000,000
Cost Recovery Funds:	1,200,000	2,000,000	2,000,000
TOTAL REVENUE:	33,161,655	33,000,000	31,500,000
EXPENDITURES:			
Personnel:	4,065,954	4,228,600	4,228,600
Contractual:	1,133,200	2,072,200	2,072,200
Commodities:	91,800	103,300	103,300
Equipment:	61,500	56,500	56,500
Telecommunications:	26,872,632	26,529,400	25,029,400
Regional Technology Centers:	936,569	0	0
Operation of Auto:	0	10,000	10,000
TOTAL EXPENDITURES:	33,161,655	33,000,000	31,500,000

ⁱ Table 1Notes:

1. Trending data generated by Clairvoyant software for the purpose of predicting network growth on individual links.
2. Time period of monitoring corresponds to busiest network traffic period (standard academic year).
3. Trending data is for one year only and improves in accuracy as time goes on.
4. Specific statistical outliers (the Springfield to Collinsville, Peoria to Bloomington, Champaign to Bloomington, and Collinsville to Champaign circuits) are not expected to trend in 2002-2003 or 2003-2004 statistics according to May 2001-September 2002 trends. More accurate trend lines for these circuits will be available by February 2003 with a complete analysis available summer 2003.
5. Aggregate average of growth ranges from 100-150% each year.

ILLINOIS CENTURY NETWORK
ADMINISTRATIVE / OPERATING RULES UPDATE

Submitted for: Information

Summary: At the September 25, 2002 Policy Committee meeting, ICN staff was asked to look into the development of operating rules for the ICN in accordance with the Illinois Administrative Procedure Act [5 ILCS 100/5-160]. This item serves to update the Policy Committee on the progress made toward the development of operating rules.

Action Requested: None.

ILLINOIS CENTURY NETWORK

ADMINISTRATIVE / OPERATING RULES UPDATE

As requested during the September 25, 2002 Policy Committee meeting, ICN staff is in the process of developing Administrative Rules as required by the Illinois Administrative Procedure Act [5 ILCS 100/5-160].

In consultation with ICN legal counsel, the following Policy Committee motions listed in Table one require formal adoption as administrative rules. Please note the actual rules will be more general in nature. Staff will present the Policy Committee with the proposed rules by the end of this calendar year and asks members to respond with comments and revisions by January 30, 2003 which will allow a final draft to be presented and approved during the February Policy Committee meeting.

Table 1
Motions Requiring Adoption into Administrative Rules

November 8, 1999	Connect public museums to the ICN at no cost and treat private museums the same as private schools. In addition, current pricing policies for state agencies should remain in effect.
October 23, 2000	ICN Staff is to examine Internet Service Provider (ISP) participation (on a case by case basis) based on the ISP showing that they are in a position to deliver a unique service to ICN constituents who could not otherwise acquire the service.
October 23, 2000	No ICN funding of direct or indirect exclusive access connections on the ICN backbone.
June 1, 2001	Discontinue provision of customer premise equipment and access circuits for higher education, libraries, and museums and provide access transport circuits only as described in the Community Network model, when provision of access transport circuits reduces costs for both the ICN and the community connecting to the network.
June 1, 2001	ICN staff to promote and assist in the development of such aggregate networks throughout the state where the network, primary constituents, and the proposed aggregate/community network benefit.
June 1, 2001	Recognized that constituents listed in the enabling legislation are in priority order and that the definition of primary constituents is K-12, higher education, libraries and museums.

July 25, 2001	Allowed for-profit accredited education entities, authorized to operate in the State of Illinois by the applicable education board, to connect to the network exclusively for the purpose of providing educational content and services subject to current policies and future cost recovery policies. The network may not be used for for-profit administrative purposes.
July 25, 2001	Allowed public service providers of not-for-profit services to Illinois citizens, including nondiscriminatory educational services sponsored by religious organizations, to connect to the network subject to current policies and future cost recovery policies and limited to the specific purposes herein approved for the connection.
November 29, 2001	Adopted the proposed cost recovery model.
July 31, 2002	Endorsed and agreed with partnerships between the ICN and commercial Internet Services Providers that enhance reliability of services for all Illinois citizens.

The approved rules must go through a public review and comment period before final adoption. The process requires a First Notice Period of 45-days by posting the proposed rules in the Illinois Register. During this time period, the public may submit comments to the ICN for consideration and possible changes to the proposed rules. Staff will collect these public comments and present them to the Policy Committee along with any recommendations for changes to the proposed rules. The Second Notice Period requires review of the proposed rules and public comments by the Joint Committee on Administrative Rules (JCAR). JCAR has up to 45-days to review and certify the proposed rules. Assuming there are no objections by JCAR, the rules become final upon publishing once again in the Illinois Register.

Once adopted, the administrative rules must be updated as appropriate. Staff will continue to monitor the Policy Committee motions and propose amendments on an annual basis.

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

Submitted for: Information

Summary: This item serves to update the Policy Committee on the creation of the new Network Operation Center and other staffing adjustments necessary to align with the ICN's service mission.

Action Requested: None.

ILLINOIS CENTURY NETWORK

NETWORK AND SERVICES UPDATE: REORGANIZATION

From its inception, the ICN has focused largely on connecting education constituents to the network. With the majority of Illinois education connected, the ICN is turning its attention to content and added-value services via the shared statewide network. The ICN staff is extremely proud of the world-class network Illinois has built and has no intention of foregoing core backbone services; however, the network clearly must remain relevant to its constituent institutions to ensure continued success.

In order to better serve primary education constituents as well as other permissive institutions that choose to connect to the network, the ICN has moved to implement a 24/7/365 Network Operations Center (NOC). The ICN has reorganized and transferred necessary positions to staff the center while streamlining regional operations. Great care was taken to ensure appropriate staffing levels to maintain core regional services. As network services are developed, appropriate staff will be added on a cost recovery basis to ensure success of these initiatives. All current staff impacted by the creation of the NOC were offered relocation opportunities. For staff who are unable to relocate, the ICN has afforded ninety days notice of the termination of the positions and Rebecca Dineen, ICN's Human Resources Officer and Secretary to the Policy Committee, is coordinating assistance and resources to aid in relocation and job search activities.

A brief overview of the personnel changes is that four RTC supervisor positions, four clerical positions, and seven technical positions were eliminated. Eight staff will transition into new or revised duties with four staff moving to accept positions either in Springfield or Chicago. Additional staff will be hired as needed to staff the newly created Network Operations Center and to fill the human resources vacancy. Two unfilled positions have been eliminated and a third remains unfilled due to budget constraints. As a result of vacation payouts, moving, hiring, and anticipated unemployment expenses, as well as brief overlaps between terminating positions and new hires, the estimated impact on the personnel budget is negligible with employee headcount under the reorganization remaining the same. To remain within the budget approved by the Policy Committee, some positions will be delayed temporarily to accommodate transition expenses.

This item serves to update the Policy Committee on the creation of the new Network Operation Center and specific staffing adjustments to align with the ICN's service mission. Specific details of the reorganization follow and an organization chart has been attached to the end of this item.

ICN Reorganization Details

Administrative

1. The work group formerly called Network Operations has been renamed to Network Services. Karlin Sink continues as the Deputy Director and Jean Taylor continues as Supervisor. Jean's group, formerly referred to as the Network Operations Center, has been renamed to appropriately reflect the primary activities and mission of the group and is now Network Design and Engineering.
2. A new 24/7/365 Network Operations Center will be fully operational no later than May 2003 and will be supervised by Gary Shaffer who is transferring to Springfield from Sterling. Gary has served for over two years as the RTC 5 Supervisor and he brings years of management experience. In addition to coordinating the 24/7/365 NOC, Gary will assume responsibility for two additional internal activities. Gary will coordinate all training offerings for staff and expand those offerings as requested by constituents statewide. In addition, Gary will also work with Cisco Academies across the state to identify and recruit interns within budgetary constraints. Gary will assume these responsibilities immediately and will begin spending at least one day per week in Springfield effective January 2003, two days per week effective March 2003, and will make the move to Springfield fulltime by May 2003 to coordinate with the implementation of dark fiber and implementation of advanced hospital network operations.
3. Lynn Murphy's focus will remain the same but with some minor changes. Lynn has been a member of the senior management team since the inception of the ICN and, as such, has primarily focused on working to assist in effective communication with the Policy Committee and with participating institutions. Lynn assists in coordination of agenda materials, legislative issues, public education and information, and broader outreach initiatives such as conferences, publishing, and representation at state and national organizations. Lynn will continue to serve in these areas as the Deputy Director for Public Policy and Information.
4. Kirk Mulvany will assume the role of Client Services Coordinator immediately, replacing Robin Woodsome and Ralph Lucia as the two current Regional Coordinators. Kirk will report to the Director and assume responsibility for the successful coordination of the RTCs. Kirk will interact with the Network Services team, the Administrative Services team, and the Director as necessary to fulfill the ICN's service mission statewide. Specifically, the RTCs will be uniform in the support each is equipped to provide to the local regions working from a common database, inventory system, with common protocols and procedures. Kirk Mulvany will move to Springfield effective January 2003.

5. The RTC Supervisors will form a comprehensive regional management team that will complement the central management team. As such, the RTC Supervisors will play an expanded role in advising the ICN management team of key regional issues and will have greater input into future directions and strategy formulation.
6. Ralph Lucia, current Regional Coordinator for Southern and Central Illinois, will shift his focus to the responsibilities of his “other” full time job as Associate Director of Administrative Services. Ralph currently assists in most, if not all, contractual matters, procurements, and provisioning. In addition, Ralph has headed up cost recovery planning and implementation efforts and spearheaded much of the new Remedy database planning and development.
7. Kristy Morelock will continue as secretary to both the Illinois Online Leadership Council and the Advanced Engineering Taskforce – both of which meet at least four times per year. In addition, Kristy will continue with staff colleagues to coordinate publications and other information items. Bringing excellent writing skills to bear, Kristy will coordinate with Lynn Murphy and begin identification and application for applicable state, federal, and private grants to add to ICN funding streams. [Note: Although authorized by the Policy Committee to hire a full time grants coordinator, the ICN has delayed filling this position. As the ICN successfully receives initial grant funding, this full time position will be reconsidered.]
8. Rebecca Dineen will transition in responsibilities and assume the position of Assistant to the Director as well as continuing her duties as Secretary to the Policy Committee. A human resources generalist will be hired to assume Rebecca’s current responsibilities.
9. Beth O’Mahoney (formerly Aper) will relocate to Chicago (by December 2002) to join the Public Policy and Information team. Beth has done a variety of work for the ICN that will continue uninterrupted with her move to Chicago. She will continue the role of Webmaster and assume the additional role of Publications Manager.

Regional Technology Centers

1. RTC 1: Chicago
 - a. Robin Woodsome, current Regional Coordinator for Chicago and Northern Illinois, will assume the responsibility of RTC 1 supervisor and provide leadership in the ICN’s most populous area.
 - b. Three positions will be eliminated with opportunity to transfer to the Springfield NOC.

2. RTCs 2 and 3: Schaumburg and Aurora
 - a. RTCs 2 and 3 will continue to maintain separate offices for at least the next 18 months; however, Keith Bockwoldt, current RTC 2 Supervisor, will serve as supervisor for both regions and will work out of both offices as required to fulfill his duties.
 - b. The Secretary III positions for RTCs 2 and 3 will be closed effective January 15, 2003.
 - c. Two positions will be eliminated with opportunity to transfer to the Springfield NOC.

3. RTCs 4 and 7: Kankakee and Urbana
 - a. RTCs 4 and 7 will continue to maintain separate offices for at least the next 18 months; however, Susan Bowen, current RTC 4 Supervisor, will serve as supervisor for both regions and will work out of both offices as required to fulfill her duties.
 - b. Kirk Mulvany, current RTC 7 Supervisor, will be transfer to Springfield to assume responsibilities as the Client Services Coordinator as discussed earlier. Kirk's position in RTC 7 will be eliminated.
 - d. One position will be eliminated with opportunity to transfer to the Springfield NOC.

4. RTCs 5 and 6: Sterling and Peoria
 - a. RTCs 5 and 6 will continue to maintain separate offices for at least the next 18 months; however, Tim Sheets, current Supervisor of RTC 5, will serve as supervisor for both regions and will work out of both offices as required to fulfill his duties.
 - b. The Secretary III position for RTCs 5 will be closed effective January 15, 2003.
 - c. Gary Shaffer, current RTC 5 Supervisor, will be transferred to Springfield to oversee the new 24/7/365 Network Operations Center as discussed earlier. Gary's position in RTC 5 will be eliminated.

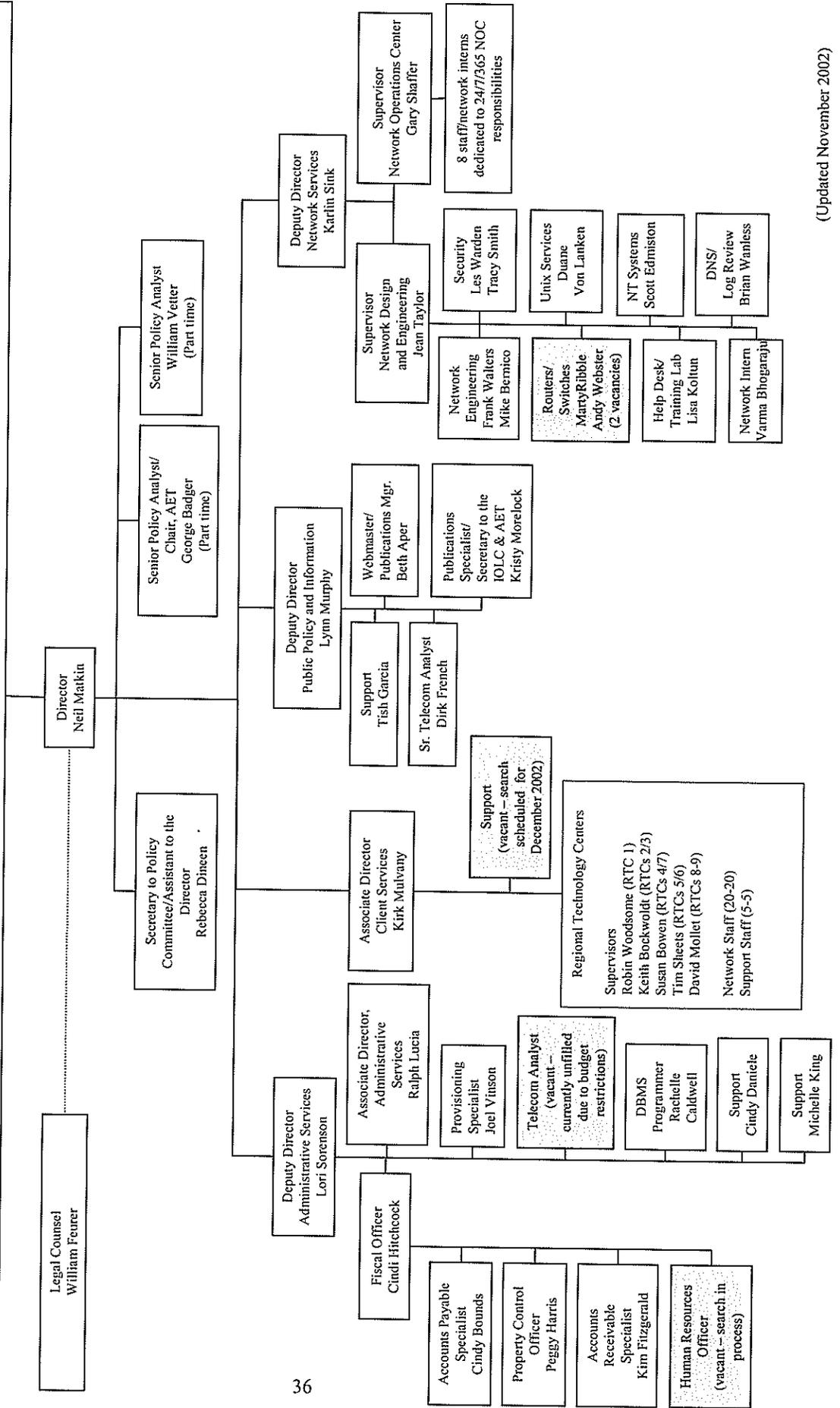
5. RTCs 8-9: Highland and Carbondale
 - a. RTCs 8 and 9 will continue to maintain separate offices for at least the next 18 months; however, David Mollet, RTC 8 Supervisor, will serve as supervisor for both regions and will work out of both offices as required to fulfill his duties.
 - b. The Secretary III position for RTC 9 will be closed effective January 15, 2003.
 - c. One position will be eliminated with opportunity to transfer to the Springfield NOC.

Other Areas

1. The training room in Springfield will be relocating to an undetermined location in partnership with another agency or local entity. The current training center will be remodeled to provide additional workspace as needed.
2. The Network Operations Center area will be remodeled to accommodate the new 24/7/365 NOC. This will require relocation of the spare parts warehouse.
3. Plans are under way to remodel the rarely used loading dock at the Springfield office to serve as an ICN warehouse. This will allow cancellation of other rented warehouse space reducing long term costs of operation and bringing much needed equipment to a location adjacent to staff.
4. The Peoria Point of Presence, currently under construction in an enlarged space, will become the official disaster recovery site for the 24/7/365 NOC and all ICN operations in according with best EDP practices in consideration of future audit and disaster recovery issues.

Illinois Century Network Policy Committee

- Six standing members named in statute (Chief Administrative Officers for Illinois State Board of Education, Illinois Board of Higher Education, Illinois Community College Board, State Library, State Museum, and Department of Central Management Services)
- Up to seven appointments by the governor (do not require legislative approval) from constituent groups not represented by standing members and specifically including private higher education and private K-12 schools
- One chair appointed by the Governor to a two year term
- Board of Higher Education serves as fiscal agent



ILLINOIS CENTURY NETWORK

**NETWORK AND SERVICES UPDATE:
CREATION OF 24/7 NETWORK OPERATIONS CENTER**

Submitted for: Information

Summary: As the ICN continues to grow with the implementation of dark fiber and the support for life-critical applications that hospitals and law enforcement require, it is necessary that a 24/7 technical support center be created to support ongoing operation of the network backbone. This item serves to update the Policy Committee on the implementation of a 24/7 Network Operations Center (NOC).

Action Requested: None.

ILLINOIS CENTURY NETWORK

NETWORK AND SERVICES UPDATE: CREATION OF 24/7 NETWORK OPERATIONS CENTER

The ICN is in the process of implementing a 24/7 Network Operations Center (NOC). In addition to recommendations made by the Advanced Engineering Taskforce (AET), there are several factors impacting the ICN's decision to proceed in this direction. The implementation and management of dark fiber resources; the critical need for network reliability in the administration of medical and law enforcement applications via the network; and the increased dependability of the education community to be able to access Internet and Internet2 resources are among the driving forces for the creation of a 24/7 NOC staffed by ICN technicians. During the recent regional information sessions, ICN constituents repeatedly expressed the need to have both the network backbone, and in some cases, their own connections monitored in a proactive fashion to avoid service interruptions. A 24/7 NOC staffed by the ICN will meet this need and provide the resources to troubleshoot and solve problems prior to the beginning of the school day.

In summary, creation of a 24/7 NOC allows the ICN to:

- Provide the best possible service for all ICN customers by detecting outages and problems earlier and seeking resolution sooner,
- Prepare for continuing and ongoing partnerships and planning with hospitals, law enforcement agencies, and national security organizations that require greater monitoring and reliability,
- Provide constant monitoring of all POP spaces for environmental, security, and control purposes,
- Free RTC staff and current NOC staff from being tied to multiple hours of follow up with telephone companies to resolve extended outages,
- Standardize monitoring services across the state for all ICN constituents,
- Provide a sustainable and scalable centralized platform for monitoring beyond the border router as an added value service of the ICN in response to constituent requests, and
- Fulfill proposals from the Advanced Engineering Taskforce adopted by the Policy Committee.

Current staffing plans call for the reallocation of existing positions in order to fill NOC positions with experienced ICN technicians who are familiar with the network and have both experience and training in the maintenance of the equipment. More detailed duties that will be performed by the NOC include, but are not limited to, the following:

1. Network monitoring

The NOC staff will monitor the network, POP (point of presence) sites, and equipment located in those sites using optimal software available. Monitoring software will be updated on a regular basis and additional nodes or functionality will be added as needed.

2. Trouble calls

The NOC staff will receive customer calls and take corrective action on reported problems. Currently this function is being performed by the Regional Technology Centers (RTC) during the day, and for the short term, this practice will continue. However, in order to maximize the resources available to process trouble calls, this service will be centralized within the 24/7 NOC and be made uniformly available on a statewide basis. NOC staff will provide feedback to clients impacted by trouble tickets.

3. Network Maintenance

The NOC staff will take care of routine maintenance such as software upgrades and work with the RTCs for the installation of network cards as well as Network Design and Engineering (NDE) staff for POP site upgrades. All new backbone circuit upgrades as well as Internet/Internet2 egress upgrades will be coordinated by the NOC.

4. Router Staging

The NOC will assist with router setup and burn-in as needed for the NDE. All core equipment goes through burn-in and testing.

5. Abuse

The NOC will assist with the e-mails that come in from around the world with complaints of unauthorized uses of the network by various computers.

6. Services

The NOC will work on after-hours configurations required for new services on routers/servers as needed. Security scanning will be part of the services provided.

As the NOC matures, this list of duties will likely expand to address the needs of the ICN constituents and the backbone operation. The implementation of a 24/7 NOC will decrease the amount of downtime experienced by ICN constituents as well as providing the NDE staff the opportunity to concentrate more on developing new services for ICN constituents.

ILLINOIS CENTURY NETWORK
NETWORK AND SERVICES UPDATE:
ADDITION OF SERVICES

Submitted for: Information

Summary: In response to constituent requests, the ICN is planning to introduce value-added services to constituents on a cost recovery basis, taking advantage of the aggregate purchasing power of the ICN to further address institutional requirements. This item updates the Policy Committee on planning and provision of value-added services.

Action Requested: None.

ILLINOIS CENTURY NETWORK
NETWORK AND SERVICES UPDATE:
ADDITION OF SERVICES

Having successfully connected nearly 6,000 eligible constituent institutions, the ICN is actively planning to provide value-added services for constituents to enable maximum use for each connection. In light of the current fiscal climate, it is important that the ICN move to address constituent needs prudently. As such, the ICN will only pursue the provision of services where cost effective and technically feasible. It is expected that through aggregate contract negotiating and purchasing arrangements, the costs associated with making services available will be lower for all concerned. All services will be offered on a cost recovery basis. In order to deliver requested services, where additional manpower or specialized skill sets may be required, the costs will be built into the total cost associated with providing the service.

During the recent regional meetings, constituents were asked to identify those services that were most important to their continued success and utilization of the statewide network. Included in the list of requested services were: network monitoring, training, security, intrusion detection, filtering, wide area network consulting, collocation, multicast, and Quality of Service (QoS). This list is not intended to be all-inclusive, but served as a gauge of continued constituent interest in ICN provided services.

As resources become available, the ICN will prioritize and implement services that have been requested. The following is an initial list of services that will be offered by the ICN. Many of the services listed represent services that are currently included on the ICN side of the constituent connection, but will be expanded to the constituent side of the connection on a cost recovery basis as warranted.

- DNS 4+ Domains – The ICN currently manages 3 domains for each constituent. The ICN will manage additional domains to serve constituent needs.
- Wide Area Network (WAN) Installation – The ICN currently installs routers that attach each constituent to the ICN. The ICN will begin installing routers on constituent wide area networks.
- Wide Area Network Management – The ICN currently manages the router and connection to the ICN. The ICN will begin offering these same services for the constituent WANs.
- Colocation - Colocation services will consist of physical space with direct high bandwidth connectivity to the backbone. This service will allow constituents of the ICN to locate equipment for the purposes of sharing educational content and services. Colocation sites are currently being implemented in Chicago, Lake

- County, Peoria, Champaign, and Charleston with plans to bring a colocation site live in Springfield by Summer 2003.
- Network consulting – The ICN currently works with constituents to recommend the router type and circuit type for their connection. The ICN will begin offering these services for LANs and for constituent WANs as requested.
 - Custom router configurations – The ICN currently configures the routers that constituents use to connect to the ICN. These configurations are standard configurations that allow for IP traffic to be passed. The ICN will begin offering custom router configurations that will handle items such as QoS (quality of service), security, NAT (network address translation), multicast, and other advanced services.
 - Community Network Consulting – The ICN will begin offering consulting for communities planning to implement WANs. The ICN will work with communities to help them find the best way to set up a WAN that will allow for high bandwidth low cost connections to one another.
 - Training – The ICN has offered training on a limited basis to its staff and other interested parties. The ICN will begin offering training to constituents. This may be in the form of certified training from training vendors where the ICN would use bulk purchasing to lower constituent costs, or it may be in the form of ICN trainers doing custom classes for ICN constituents on location upon request.
 - Filtering – The ICN will offer filtering for its constituents. Filtering will be offered in 2 varieties, a standard filter that meets e-rate requirements or a web manageable filtering solution that allows the constituent to set up their own filtering standards. As a part of this process the ICN signed master purchase agreements with some vendors for lower prices that constituents may utilize to meet institution needs. This implementation of network-based filtering will provide low cost filtering targeted at the smallest K-12 schools, both public and private, in the most remote locations and will enable additional federal e-rate funds to be applied for and received in the state.
 - Video – The ICN will offer a centralized IP Video service that will allow constituents to register with and utilize the services of a central gatekeeper, a central H.320/ H.323 gateway and a central Multipoint Control Unit (MCU).

This list may expand or contract based on constituent need and the resources required to provide these services. Constituent needs will continue to be monitored through user groups, the Advanced Engineering Taskforce, public meetings and direct feedback to ICN management.

ILLINOIS CENTURY NETWORK

**NETWORK AND SERVICES UPDATE:
NON-PRIMARY CONSTITUENT ICB**

Submitted for: Information

Summary: The ICN has successfully negotiated lower tariffs for access circuits for non-primary constituents, including municipalities and hospitals. This item serves to update the Policy Committee on the details of the reduced pricing for non-primary constituents.

Action Requested: None.

ILLINOIS CENTURY NETWORK

NETWORK AND SERVICES UPDATE: NON-PRIMARY CONSTITUENT ICB

The Illinois Century Network has negotiated an agreement with SBC Ameritech that will offer DS1 (T1) service to ICN non-educational constituents at significantly discounted rates. The "Ameritech Custom DS1 Agreement for Illinois Century Network Access for Non-education Constituents" provides DS1 service for data and/or video transport between ICN sites and these constituent sites and for data and/or video transport between non-educational constituent sites. Municipalities, hospitals, park districts and other entities that provide services to Illinois Citizens are examples of the constituents that will benefit from this agreement. A typical connection will be discounted by as much as fifty percent (50%) when compared to standard pricing plans. The agreement will be available for use by ICN constituents no later than January 2003.

Approximately 214 municipal government constituents and 80 health care constituents are currently connected to the ICN. The new agreement makes ICN connectivity considerably more affordable for the more than 460 municipal government, 120 Park District and 130 Hospital constituents located in SBC Ameritech territory. The table below shows the effect of the new agreement for typical connections when compared to standard pricing plans.

<i>The Effect of the ICN DS1 Agreement on Non-education Constituent Connections</i>			
<i>Site</i>	<i>Miles to ICN POP</i>	<i>ICN DS1 Agreement</i>	<i>Standard Pricing</i>
Village H	12	\$192.80	\$418.00
Village N	20	\$238.00	\$546.00
City E	36	\$294.50	\$706.00

** 60 Month agreement. Connecting via ICN Channelized DS3.*

ICN connectivity makes it affordable for municipal government constituents to offer on-line services for the citizens of Illinois. Aside from disseminating general information such as departmental contacts, offered services, community events, and local ordinances, many transactions can be completed totally on-line. These include:

- *Payment of water and sewer bills*
- *Payment of traffic tickets*
- *Permit applications*

- *Download and submittal of employment applications*
- *Applications for Park District sports and educational programs*
- *Download of publications including maps, public transportation routes and schedules, etc.*

The ICN has been in negotiations with the Illinois Hospital Association to provide robust, reliable connectivity for life-critical applications such as remote diagnostics and treatment. Additional health care applications that will be promoted by low cost connectivity include:

- *Telemedicine to support high quality healthcare delivery to underserved rural and urban areas and to homebound patients;*
- *Teleconferencing and other distance learning options for advanced training for healthcare providers and for patient education;*
- *Health alert network and communications for disease/disaster surveillance and emergency response coordination among local public health departments, hospitals, emergency medical personnel and other first-responders; and Specific computer-enabled health administration functions.*

The potential for additional connections of this type in parts of the state served by other local exchange carriers (LECs) has been identified and the ICN has approached these carriers to discuss similar programs. The quantities of potential constituents within other major LEC serving areas are shown in the table below.

Local Exchange Carrier	Municipalities*	Hospitals*
Citizens	102	5
Gallatin River	25	5
ICTC	40	5
Verizon	480	25
* Approximate quantities based on 2000 census and IHA data.		

Most major local exchange carriers (LECs) in Illinois offer discounted pricing plans for ICN primary constituents. These tariffs have been commonly referred to as Learning Link tariffs. The ICN has been instrumental in extending discounts to a wider constituent base via the ICN/Ameritech DS1 and DS3 agreements. The combination of these tariffs, the federal e-rate program, and the ICN regional network designs such as the ICN provided digital subscriber line services in Region 8 have reduced the cost of connectivity and resulted in a more than 90% primary constituent connectivity rate.

It is expected that telecommunications carriers across the state will view increased connectivity to be of mutual benefit. These benefits will be realized by the citizens of Illinois and translate to additional revenues for carriers and their stakeholders. As a result, the ICN expects carriers to begin extending discounts to a broader range of constituents.

ILLINOIS CENTURY NETWORK

**FALL 2002 REGIONAL INFORMATION SESSIONS:
WRAP UP**

Submitted for: Information

Summary: In late September and early October, the ICN hosted a series of nine regional information sessions throughout the state. The meetings were well received by ICN constituents and this item shares the results of those meetings with the Policy Committee.

Action Requested: None.

ILLINOIS CENTURY NETWORK

FALL 2002 REGIONAL INFORMATION SESSIONS: WRAP UP

Earlier this fall, in just under two weeks, ICN management staff logged nearly 2,100 miles traveling throughout the state to meet with ICN constituents. The series of nine regionally-based information sessions and public meetings was designed to meet several goals and provide ICN constituents with the opportunity to share issues and concerns with ICN staff. The overarching theme of the meetings was that the ICN belonged to all of the participating constituents, and as such, needed to be moving in directions that enabled the constituent institutions to maximize the benefits made available and services offered through the network. The oft repeated theme of “this statewide network is ‘all of ours’” was accompanied with a call for input from all constituent parties to ensure that the direction of the network remained relevant to individual institution missions.

Although a common agenda was established for each of the regional meetings, the unique characteristics of each region became evident during the feedback opportunities attached to each agenda item. The agenda for each meeting included:

- Regional and statewide ICN update, focusing on current regional activities, changes in enabling legislation, planned network backbone upgrades, and the importance of dark fiber implementation for the long-term sustainability of the network;
- In-depth discussion of proposed ICN services and other service needs as identified by ICN constituents;
- Presentation of the proposed cost recovery plans for Fiscal Year 2004, designed to give constituents ample time to assess bandwidth needs and make budgetary decisions;
- Discussion of a shift in focus from connectivity to content, highlighting the Internet2 connection, elearning conference opportunities, and the proposed Certified Content Partner program currently under development; and
- Review of the Regional User Groups, past, present, and future, designed to solicit feedback on the best methods to encourage two-way communication between connected institutions and the ICN.

The regional information sessions were well received and those in attendance expressed appreciation for the opportunity to meet with ICN staff and provide input and feedback into the future direction for the ICN, especially in the area of proposed network services. The services identified by constituents included colocation, wide area network

consulting, training, network monitoring, filtering, Quality of Service (QoS), multicast video, security, intrusion detection, aggregate purchasing, and IP video offerings. Many of these services are scheduled to be rolled out later this fall and in the first quarter of 2003. Feedback from constituents indicated that they understood the need to offer services on a cost recovery basis and that services would be offered only where there were identified needs and resources available to deliver those services. At many of the meetings, the comment was made that services offered by the ICN were of better quality and lower cost, even after cost recovery implementation, than those available through other providers.

A review of the conditions that led to the implementation of cost recovery was provided to set the stage for the cost recovery discussion. ICN management has continued to address the need to ensure long term stability and that cost recovery was put in place to provide resources to match continued growth in utilization. When cost recovery policies were adopted in November 2001, constituents were promised the opportunity to review annual bandwidth costs in order to make decisions about bandwidth needs and budget implications. This series of information sessions provided the public forum for that discussion. The news about lower costs for bandwidth coupled with increases in baseline bandwidth allocations for primary constituents was especially well-received. Lower costs for backbone circuits and Internet/Internet2 egress combined to enable the reduction in bandwidth costs and the increase in the allocation. The role that dark fiber implementation holds for the future of the ICN and the costs associated with the initial deployment will directly influence future cost recovery determinations. The role of the economy and recovery of the telecommunications sector was also discussed as a key determinant to future costs for the ICN.

Communication and outreach to constituents remains a high priority with the ICN staff. A portion of the information session was dedicated to a review of the original Regional User Group concept and a discussion of the varying degrees of success of this initiative. This was one of the areas of the agenda that reflected some of the differences between the constituents in the various regions. In some areas, where there were pressing needs impacting the region, constituents tended to get together more frequently and the user group concept worked well. In other areas, the needs of users were met by existing groups and affinities or through email and electronic bulletin boards. All in attendance felt that meeting with the ICN on an annual basis provided a good opportunity for feedback. Suggestions for other feedback mechanisms included listserves designed around technical or programmatic issues; re-visiting the user group concept with specific outcomes identified by the ICN; local meetings as needed with invited ICN staff; and continuation of user groups that experienced success. ICN staff is currently reviewing the suggestions and preparing to implement additional means to support effective communication between the ICN and constituent institutions.

Encouraged by the success of this series of regional information sessions, the staff plans to do a similar schedule of meetings on an annual basis and will host additional sessions in the event that there are critical issues to bring before the ICN constituents as a whole or to specific sectors.

ILLINOIS CENTURY NETWORK

EXECUTIVE SESSION

Submitted for: Information

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

Action Requested: None.

ILLINOIS CENTURY NETWORK

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, November 13, 2002 for the purpose of discussing Illinois Century Network personnel issues pursuant to Section 2(B)(1) of the Open Meetings Act.”