

ILLINOIS CENTURY NETWORK
COST RECOVERY POLICY

Submitted for: Action

Summary: This item addresses two primary issues:

- 1) At current funding and operational levels the ICN anticipates a budget shortfall in fiscal year 2003.
- 2) The creation of a comprehensive policy to provide guidelines for allocation of state appropriations and collection of necessary fees in order to allow the ICN to keep up with current growth in demand and services.

Action Requested: Approve staff recommendation of cost recovery policies.

Recommended Motion: *That the ICN Policy Committee adopts the proposed cost recovery model.*

ILLINOIS CENTURY NETWORK COST RECOVERY POLICY

Introduction

The Illinois Century Network (ICN) was signed into law by Governor George H. Ryan on June 8, 1999. Merging the efforts of the State Board of Education LincOn Network and the Community College Board and Board of Higher Education Illinois Video Education Network, the ICN now serves almost 5,500 constituents and over two million Illinois citizens, more than doubling previous efforts. Demand for reliable and robust Internet access continues to grow at a phenomenal rate as educators implement multimedia and other complex applications to increase access to information and to improve the quality and efficiency of Illinois education.

Today, the ICN provides a seamless network infrastructure for schools, colleges, universities, museums, libraries, state agencies, and other partners in the state. The network allows public agencies to work together to prepare Illinoisans to be productive in the technologically intensive workplace of the twenty-first century. This rapid growth has not been without cost. With up to 27 million dollars in direct funding allocated in fiscal years 2000, 2001, and 2002, through the Board of Higher Education and State Board of Education, the ICN faces critical fiscal challenges as it continues providing high levels of service to Illinois education and other constituents. Additional funding is necessary because the budget provided by the state is not sufficient to cover documented growth in the clientele and in anticipated network traffic. In addition, the ICN must become more aggressive in securing favorable pricing which is now possible as a result of the delegation of procurement authority.

Although fiscal resources are a valid concern, as with any sizable enterprise, there are other important factors that must be taken into consideration when developing sound public policy necessary to guide the network. Further, construction and management of the network is only one part of the requirements identified in the original 1997 Statewide Taskforce Report. Although the ICN clearly provides excellent access to the commercial Internet and to the "Illinois Intranet" created through the ICN, it must continue efforts to significantly address the provision of educational content to take full advantage of the robust statewide network that is now built. What is the next step in what is clearly a phenomenal Illinois success story? The ability of educational constituents to successfully implement technical resources for content delivery will prove to be the most important next step. Cost recovery policies presented in this item facilitate this goal over the next five years.

This item addresses two primary issues:

1. At current funding and operational levels the ICN anticipates a budget shortfall in fiscal year 2003.
2. The creation of a comprehensive policy to provide guidelines for allocation of state appropriations and collection of necessary fees in order to allow the ICN to keep up with current growth in demand and services.

The choice the ICN confronts is a simple one:

Does the ICN (1) start restricting the use of the network to operate within level funding constraints, or (2) continue to expand and grow to meet the documented needs of Illinois education and other constituents?

If the answer is that the ICN should restrict the use of the network, then the question that follows is:

Which services and what educational content should be limited?

The staff recommends against limiting services and believes that doing so would be a disservice to Illinois education and the constituents of the network. If the answer is that the ICN should meet the needs of its constituents, as the staff strongly recommends, then the next question is simply:

Who pays?

The potential actions or combination of actions available to remedy the anticipated shortfall in resources and/or growth in demand are fourfold. The ICN can:

1. Attempt to obtain incremental new moneys from the legislature and governor in collaboration with funding agencies,
2. Ask current funding agencies or potential funding agencies to reallocate existing funds to provide additional resources (e.g., IBHE and ISBE give more than currently allocated, other constituents represented on the Policy Committee provide funding),
3. Implementation of cost recovery funding measures,
4. Lower the overall cost of operations by negotiating better contract pricing or reduce provided services.

Public Act 91-21: The Legislative Intent of the Illinois Century Network

The ICN Policy Committee is charged in enabling legislation with oversight and direction of the network. At the June 1, 2001 meeting, the Policy Committee passed the following motion:

The Illinois Century Network Policy Committee recognizes that constituents listed in the enabling legislation are in priority order and agree with staff recommendations regarding the definition of primary constituents of the ICN.

Section 10 of Public Act 91-21 cites the following order of constituents able to connect to the network:

...(1) Illinois schools, (2) institutions of higher education, (3) libraries, (4) museums, (5) research institutions, (6) State agencies, (7) units of local government, and (7) other local entities that provide services to Illinois citizens...

The specific staff recommendation the motion referenced was as follows:

...staff recommends that the K-12 schools, institutions of higher education, libraries, and museums be identified as ICN Primary Constituents. As such, these institutions would receive the highest possible degree of service at the lowest possible cost and be entitled to discounted pricing if the Policy Committee adopts a cost recovery model.

Educational constituents are listed first and foremost in enabling legislation and all funding to date has come through the combined efforts of state education boards and approved by the legislature and governor. Almost ninety-two percent (92 percent) of all network constituents are comprised of educational institutions, which in turn utilize the majority of the available bandwidth of the network, also ninety-two percent (92 percent). K-12 schools make up the largest number of connections but have the lowest bandwidth per connection. This may be indicative of the level of available funding but more likely indicates that bandwidth levels are adequate for current applications. Table 1 provides details of the percentage of connections and bandwidth by sector (tables providing detailed explanation of bandwidth utilization and number of entities by sector are provided in Appendices A and B).

In keeping with the clear legislative intent and funding, the primary direction and implementation of the ICN is as a statewide network primarily serving education. The ICN will continue to honor the legislative intent in allocation of funding to each type of client placing emphasis on primary constituents (schools, community colleges, universities, libraries, and museums).

Table 1
Overview:
Percentage of Connections and Bandwidth All Sectors
 (September 2001)

	Constituents Served	Bandwidth Utilization	Bandwidth Total
K-12 Schools	80.00%		50.09%
Public		44.85%	
Private		5.24%	
Higher Education	3.30%		30.91%
Public Community Colleges	2.00%	15.86%	
Public Universities	0.30%	11.78%	
Private Colleges & Univ.	1.00%	3.27%	
Libraries	8.00%		9.68%
Museums	0.40%		1.00%
Municipal/State Government	4.00%		3.10%
Other	5.00%		5.61%

*Connections and bandwidth totals are slightly higher than 100% due to rounding.

Components of the ICN: What is the State Paying For?

The ICN consists of the following component parts (fiscal year 2002 costs totaling approximately \$30.8 million are highlighted in parentheses):

1. **Points of Presence (POP):** Equipment rooms that allow the interconnection of backbone circuits and provide a location for ICN constituents to connect to the network. These facilities are telecommunications class equipment centers¹ with necessary network equipment, backup power, uninterruptible power supplies, fire suppression systems, and air conditioning in accordance with industry standards. Co-location facilities are sections of the POP spaces that have been physically segmented to provide constituent equipment to locate directly on the network.
(\$4.5 million)

2. **Backbone Circuits:** High bandwidth circuits leased from telecommunications carriers or provided by the State from state-owned fiber to interconnect the ICN POPs and create the Illinois INTRANet.
(\$8.72 million)

¹ Telecommunications Class facilities refers to facilities that have professional, telecommunications industry standards-based equipment. This level of equipment is robust and generally has a lifespan of 5-7 years. Much of the ICN equipment in service today was inherited from the former LincOn project and is five to six years into its useful life and is being systematically upgraded.

3. **Internet Egress:** The backbone network and POPs connect constituents to one another and allow sharing of commercial Internet resources. Contracts with commercial providers for large egress quantities reduce the costs for all ICN constituents.
(\$3.2 million)
4. **Regional Technology Centers (RTC):** Strategically placed ICN offices to provide support and local monitoring of ICN connections. RTCs boast industry-certified technicians capable of quickly solving network outages at the local level to ensure educational use of the ICN remains as reliable as possible. The RTCs work with Regional User Groups and training as well as promotion of local wide area network strategies to help schools, colleges, universities, museums, and libraries increase bandwidth to individual facilities at the lowest possible cost.
(\$200, 000)
5. **Management and Administration:** Network operations, administrative services, and client services provide the necessary human resource and infrastructure support to ensure that the ICN manages the state resources entrusted to it wisely and continues building the network to meet the rapidly changing needs of its constituents.
(\$4.18 million)
6. **Access Circuits:** Access circuits include connections to higher education institutions, libraries and museums, community networks, grooming sites, and CT3 loops. Circuits connecting higher education institutions are scheduled to be paid by constituents at the end of the fiscal year representing a reduction in costs of approximately \$1.4 million. Other circuits are maintained by the ICN to extend access points to the backbone network to those areas of the state that bear the highest connection costs. These circuits include community networks, grooming sites, and CT3 loops and represent a subsidy of approximately \$6.89 million to K-12 schools and \$1.46 million to other ICN constituents².
(\$10 million)

Current and Projected Utilization of the Network: ICN Growth Trends

The growth in utilization of the network is well documented. What is less evident is the rate at which each piece of the network is growing. To some degree, future growth trends are estimates. The easiest estimate is based upon utilization over the last two years, however, since the ICN has been in a building mode, basing future growth on these

² An MSA-by-MSA analysis currently underway will analyze the overall cost effectiveness of these operations and result in specific recommendations to the Policy Committee for continuation or discontinuation of these access subsidies focusing resources on the most underserved areas of the state.

particular trends may not be accurate. Every consecutive year of operation will yield better data for long-term trending.

In order to facilitate responsible planning, the ICN has created three growth models: 1) anticipated growth, 2) slower than anticipated growth, and 3) faster than anticipated growth. The ICN funding models are based on growth trends with ranges to facilitate slower than anticipated growth or faster than anticipated growth.

What might cause slower growth in the use of the network? An extended economic slowdown could clearly push local expansion plans and technology-based content rollouts to later starting points. Prioritization of other necessary expenditures such as upgrades to physical plant, remodeling of school buildings, or new building projects may cause a slowdown in anticipated growth. Faster than anticipated growth could result from continued disruption in travel routines and other normal patterns leading to greater use of online resources. Among higher education, the ICN is already witnessing faster than anticipated growth in video carried by the network after the September 11 tragedy and attributes this acceleration to travel disruptions. The start of a new semester in 2002 will show whether online courses experience growth as a result of the terrorism attacks. Another factor that accelerates some sector's use of the online resources is the high unemployment rate since colleges and universities usually experience higher enrollment during economic slowdowns.

Total cost is a function of various attributes associated with each operational area of the network. Note that many of the cost functions detailed below are dependent on events external to the ICN and include constituent connections, the bandwidth of those connections, and the utilization of the network (the anticipated growth through fiscal years 2005 and average per year is highlighted in parentheses):

1. **Points of Presence (POP):** Cost is a function of 1) necessary equipment upgrades, 2) the number of constituent connections, 3) the bandwidth of constituent connections, 4) the bandwidth of backbone circuits, 5) POP space rental, 6) electrical utilities, 7) ongoing maintenance contracts, 8) required software upgrades, and 9) network management equipment and software. **(11-26% cumulative, 4-9% per year)**
2. **Backbone Circuits:** Cost is a function of 1) constituent network utilization, 2) the ability to procure bandwidth capacity at competitive prices, 3) the contract term commitment (typically 3-5 year contracts), and 4) the costs of installing incremental levels of telecommunication services. For example, if a 45 mbps backbone circuit (DS3) reaches capacity it is likely that the minimum acceptable replacement will be another 45 mbps circuit, however, the pricing point for circuits may dictate going to the next largest offering (OC3) which in effect triples the bandwidth at approximately twice the previous price. Growth of backbone utilization is not a linear function. Utilization is currently growing at approximately 50% per year and the last months have seen acceleration of this trend. National averages report 100% growth per

year and the Advanced Engineering Taskforce reports that 6-8% growth per month (72%-96% per year) is normal.

(193-208% cumulative, 64-69% per year)

3. **Internet Egress:** Cost is a function of 1) constituent utilization, 2) ability to bundle aggregate use to procure large bandwidth connections, 3) establishment of peering relationships, 4) content hosting, 5) caching and mirroring, and 6) constituent prioritization of Internet resources (limitations of recreational traffic).

(233-248% cumulative, 78-83% per year)

4. **ICN Management, Administration, and Regional Technology Centers (RTC):** Cost is a function of 1) human resources deployed, 2) training costs, 3) office rental, 4) administrative/travel costs, 5) office equipment, local area networks (LANs), network monitoring equipment, 6) network management facilities, and 7) funding for Regional User Group activities.

(12-18% cumulative³, 4-6% per year)

5. **Access Circuits:** Cost is a function of 1) the number of constituents connected, 2) the bandwidth of the connections, and 3) the degree to which the ICN subsidizes constituent access to the backbone network or extends the backbone network access points to underserved areas.

(decrease of -13 to -28% cumulative, -4 to -9% per year)

Staff has created a comprehensive model taking into account current growth trends and the detailed attributes listed above. Appendix C provides three year growth projections and anticipated costs. Appendices D-F provide a graphical view of backbone network upgrades anticipated in correlation to the three growth models for fiscal years 2003-2005.

The Budget Objective

The goal of the staff is to achieve a balanced budget while continuing to meet the demands of Illinois education and other ICN constituent groups. However, if the budget is balanced and the result is limiting the intended use of the network, the legislative intent of the ICN will not have been achieved. The ICN must meet the needs of Illinois education or, in essence, the network will have reached a plateau and its useful life will be severely limited. The ICN budget for fiscal year 2002 is presented in a separate item inclusive of a working budget outline for fiscal year 2003.

Consideration of Legal Issues: The ICN is a Private Network

In studying successes and failures relating to other state networks, staff has discerned the need to clearly understand and work within federal and state laws

³ RTC funding was prepaid in fiscal year 2000 through June 5, 2002. Growth percentage calculated based on actual costs of RTC operations.

applicable to the ICN. To that end, staff has met with representatives from the Illinois Commerce Commission and retained expert legal counsel to assist in identifying relevant issues and to ensure that the ICN moves forward in accordance applying best practices within applicable law.

Clearly, the ICN, as a state-owned and operated network, is designed and intended to provide services to state funded entities. As such, the ICN is, and intends to continue as, a private network. To that end, the following policies are vital to ensure that the ICN does not engage in common carriage or act in any way as a common carrier:

1. The ICN will operate as a private network providing robust connectivity to and among publicly funded entities and to the commercial Internet as well as providing advanced services and educational content.
2. The ICN will allow non-publicly funded entities to connect to the network on a cost recovery basis and provide individually configured services via facilities-based lease contracts.
3. The ICN will not in any way engage in the provisioning of basic transport between constituent entities but will limit its offering to enhanced data services.

At the July 25, 2001 Policy Committee meeting, Information Item #10 addressed the staff's consideration of constituent requests for permanent virtual circuits (PVCs). PVC is the name given for the dedicated portion of bandwidth that is sectioned off from the rest of the bandwidth along a given path. Typical requests for this service come from multi-campus universities who are interested in sharing sensitive information such as student data or financial information.

Recognizing that this request is outside the baseline level of service that the ICN provides to its constituents, staff agreed to investigate providing PVCs on a cost recovery basis to primary constituents as long as there is no negative impact on network capacity required to serve ICN primary constituents. In July, staff informed the Policy Committee that a decision and cost structure for providing PVCs would be determined upon the finalization of the cost recovery model.

Based on further investigation by staff in developing the cost recovery model, coupled with information received through legal consultation, it has been found that the ICN is able to offer PVCs in limited cases to publicly funded entities for advanced services. The ICN will consider requests based only on the previously discussed legal points and will work within the constraints applicable to a state owned and operated private network.

Goals of Cost Recovery

In discussing cost recovery and the related use of the existing state appropriations, specific goals identified below are consistent with policies approved by the Committee.

Implementation of proposed cost recovery policies create incentives to encourage educational uses of the network and to improve the technology skills of the workforce of the future. The policies encourage all sectors of the Illinois educational community to participate and ensure that each client is at least as well off under the cost recovery policies as they would be procuring like services outside the ICN. Some segments of potential ICN constituents have yet to take full advantage of the network. To this end, the ICN will continue to publicize the value of the network to constituents and work to ensure that there are incentives to use the network responsibly (e.g., limiting recreational traffic). The aggregate and responsible use of the network will assist staff in managing the state's resource and extending its use at lower cost of operation to all constituents. The proposed policies continue to encourage local consolidation and cooperation across sectors for the purposes of providing robust bandwidth at affordable prices (e.g., school districts, municipal and county government, and other local public sector entities sharing resources).

There is concern that some entities have procured services through the ICN and then provided such services at prices above costs to their constituents. This becomes a crucial issue since it potentially serves to increase the cost for legitimate users who do not connect directly to the network. The legal participation agreement forbids this and the ICN will not knowingly empower entities to resell ICN services at more than actual cost.

The ICN will continue to implement the backbone network and promote higher levels of constituent bandwidth to encourage experimentation and new advanced methods of course delivery. Not all constituents require advanced services to accomplish their individual missions. As such, the ICN will provide levels of service allowing constituents to decide which service offerings and bandwidth is sufficient to best meet local needs.

It is important that the ICN work with clients to ensure that annual costs are predictable and that sufficient advance notice is given in order to allow ample time for budget preparation. Further, staff will work with those entities whose fiscal years vary from the state fiscal year (July 1 – June 30) in such a way to assist in budget planning.

The Cost Recovery Model

To ensure that the proposed cost recovery model is implemented in the spirit of the legislative intent and further definition by the Policy Committee, primary constituents (education institutions, libraries, and museums) receive the highest possible degree of service at the lowest possible cost. Staff will work to limit the complexity of cost recovery management, both for ICN staff and for the clients connecting to the network.

Predictive models exist and will continue to be refined by staff such that different growth patterns can be monitored and cost recovery allocation adjusted accordingly. Upon approval by the Policy Committee, cost recovery will be implemented in such a manner that sustains the network and addresses constituent demands upon existing and future resources.

The proposed cost recovery model allocates the state appropriations and constituent charges as follows:

1. Effective July 1, 2002, all education constituents will pay for costs to access the network including direct circuits and portions of circuits allocated for constituent use. The ICN has reduced these access costs significantly by providing points of presence (POPs) in every Market Service Area and providing grooming sites that allow constituents to connect to the network without procuring long distance circuits.
2. Effective July 1, 2002, publicly funded primary constituents will receive baseline transit across the network and to the commercial Internet. These ICN-provided transit levels will be based on headcount associated with direct connections to the network within the limits of funds appropriated to the ICN.
3. Effective July 1, 2002, non-public primary constituents will receive services through individually negotiated facilities-based leases to provide connectivity to the network. Transit levels will be based on the individual facilities-based lease at cost recovery rates to be negotiated with the constituent institution.
4. Baseline transit levels for publicly funded primary constituents will be evaluated annually in relation to available funds and staff will recommend modifications to the Policy Committee accordingly. Any adjustment to baseline transit provided by the ICN will be communicated to constituents accordingly. Table 2 provides the staff recommendation for fiscal year 2003 (July 1, 2002 through June 30, 2003).

Table 2
Establishment of Baseline Transit Amounts for
Public Primary Constituent Direct Connections

Institution(s) FTE Headcount	ICN Provided Base Bandwidth/Transit (Mbps)
Less than 1,000 (and entities without FTE)	1.5
1,001-3,000	3
3,001-6,000	6
6,001-12,000	12
More than 12,000	20

5. Effective July 1, 2002, transit required above the baseline provided by the ICN for publicly-funded institutions will be charged back quarterly at ICN costs. ICN costs will be based on actual and anticipated expenditures and revised annually for consideration by the Policy Committee. The cost per megabit of transit will be communicated to constituents annually.
6. Effective July 1, 2002, existing secondary and permissive constituents will pay for connection to the network via facilities-based leases tailored to the needs of the constituent. Any access, transit, and egress facilities, inclusive of equipment port connections at the point of presence (POP) will be sized according to requirements. New ICN secondary constituents will pay these costs effective immediately based upon the successful execution of a facilities-based lease.
7. Effective July 1, 2002, all current ICN constituents will pay for existing added-value services provided at the request of ICN constituents on the basis of a facilities-based lease. All new ICN constituents or any new services requested by current constituents will be charged on a cost recovery basis effective immediately. [Note: The Policy Committee will be presented a comprehensive item in January 2002 detailing planned and potential ICN service offerings complete with implementation timeframes in response to an ongoing statewide survey of constituents.]
8. The Policy Committee has approved the ICN to discontinue funding for constituent premise equipment to connect to the network. However, the ICN currently owns a large quantity of such equipment that it has made broadly available on a long-term sign out basis. This equipment remains the property of the state. Effective immediately, any hardware upgrades for constituent-based equipment will become the responsibility of the constituent institution. Ongoing maintenance contracts and software upgrades are paid in advance by the ICN through July 1, 2002, at which time these items will also be the responsibility of the constituent institutions. The ICN may elect to provide some equipment installations used as grooming sites or other resources in a local region when it is cost effective to do so. At the request of the institution, the ICN may bundle hardware costs or upgrades into ongoing facilities-based leases to serve specific constituent needs.

The staff recommends the following motion:

The ICN Policy Committee adopts the proposed cost recovery model.

Appendix A
Bandwidth Utilization by Sector
(September 2001)

	Bandwidth (Mbps)	Schools	Community Colleges	Public Universities	Private Colleges & Universities	Libraries	Museums	State & Municipal Government	Other
Colleges - Public	3.088			0.07%					
Colleges - Private Non-Profit	78.803				1.70%				
Community Colleges - Public	734.526		15.86%						
Universities - Public	523.466			11.31%					
Universities - Private Non-Profit	72.686				1.57%				
K12 - Public	2076.458	44.85%							
K12 - Private Non-Profit	242.504	5.24%							
Library - Public	448.090					9.68%			
Museums - Public	34.283						0.74%		
Museums - Private Non-Profit	10.808						0.23%		
Museums - For Profit	1.544						0.03%		
Hospitals - Private Non-Profit	1.544								0.03%
Hospitals - Public	1.544								0.03%
Medical Centers - Public	4.632								0.10%
Medical Centers - Private Non-Profit	9.264								0.20%
State Agencies	22.984								0.50%
Municipal Buildings	143.750							3.10%	
Public County Government	48.688								1.05%
Others - All	168.136								3.76%
Zoos - Public	1.544								0.03%
Zoos - Private Non-Profit	1.544								0.03%
Total Bandwidth Utilized	4629.886	50.09%	15.86%	11.37%	3.27%	9.68%	1.01%	3.10%	5.74%

*Bandwidth totals are slightly higher than 100% due to rounding.

Appendix B
Number of Entities Served
(September 2001)

	Number of Entities Served	Schools	Community Colleges	Public Universities	Private Colleges & Universities	Libraries	Museums	State & Municipal Government	Other
Colleges - Public	2			0.04%					
Colleges - Private Non-Profit	42				0.77%				
Community Colleges - Public	120		2.19%						
Universities - Public	72			1.31%					
Universities - Private Non-Profit	32				0.58%				
K12 - Public	4202	76.59%							
K12 - Private Non-Profit	178	3.24%							
Library - Public	429					7.82%			
Museums - Public	11						0.20%		
Museums - Private Non-Profit	7						0.13%		
Museums - For Profit	1						0.02%		
Hospitals - Private Non-Profit	3								0.05%
Hospitals - Public	2								0.04%
Medical Centers - Public	3								0.05%
Medical Centers - Private Non-Profit	9								0.16%
State Agencies	82								1.49%
Municipal Buildings	149							2.72%	
Public County Government	30								0.55%
General Business									0.00%
Others - All	110								2.08%
Zoos - Public	1								0.02%
Zoos - Private Non-Profit	1								0.02%
Total Entities Served	5486	79.84%	2.19%	1.35%	1.35%	7.82%	0.35%	2.72%	4.46%

*Total number of entities served are slightly higher than 100% due to rounding.

Appendix C
Three Year Projections Based on Growth Trends
(September 2001)

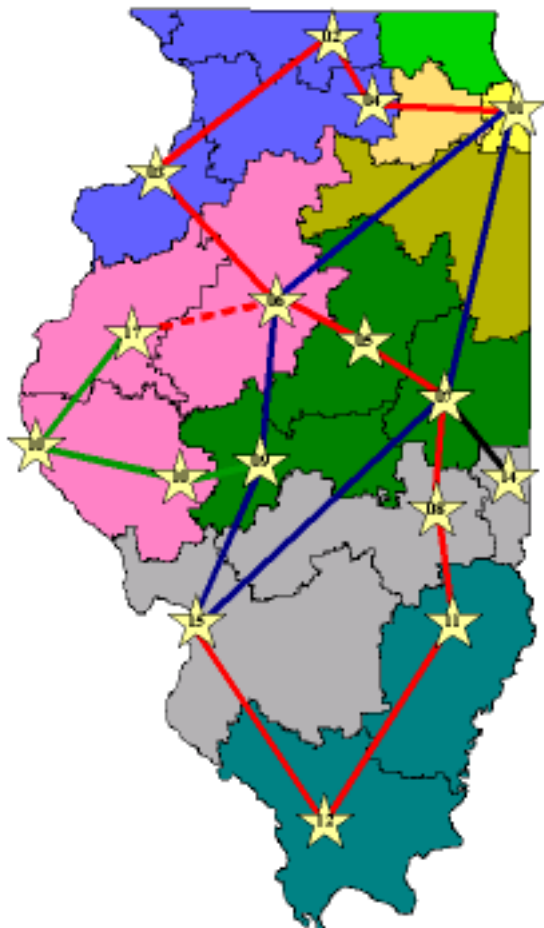
	FY 2002	FY 2003			FY 2004			FY 2005		
		Slow	Average	Fast	Slow	Average	Fast	Slow	Average	Fast
Backbone										
Circuits	\$8,723,468	\$8,826,668	\$8,826,668	\$8,826,668	\$8,826,668	\$10,893,968	\$14,641,136	\$14,212,736	\$26,020,736	\$29,456,984
Equipment	\$4,500,000	\$4,725,000	\$4,725,000	\$4,725,000	\$4,961,250	\$4,961,250	\$4,961,250	\$5,209,313	\$5,209,313	\$5,209,313
Egress	\$3,210,354	\$4,333,978	\$4,815,531	\$5,393,395	\$6,500,967	\$7,223,297	\$8,090,092	\$9,751,450	\$10,834,945	\$12,135,138
Access										
Community Colleges	\$1,315,563	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Colleges & Universities	\$122,485	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Libraries & Museums	\$25,094	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Community Networks	\$2,565,061	\$1,282,531	\$1,282,531	\$1,282,531	\$1,282,531	\$1,282,531	\$1,282,531	\$1,282,531	\$1,282,531	\$1,282,531
Grooming Sites	\$3,354,310	\$3,354,310	\$3,354,310	\$3,354,310	\$3,354,310	\$3,354,310	\$3,354,310	\$3,354,310	\$3,354,310	\$3,354,310
CT3 Loops	\$2,691,544	\$2,758,833	\$2,826,121	\$2,879,952	\$2,896,774	\$2,967,427	\$3,023,950	\$3,041,613	\$3,115,799	\$3,175,147
Administration										
Springfield and Chicago	\$4,181,345	\$4,390,412	\$4,390,412	\$4,390,412	\$4,609,933	\$4,609,933	\$4,609,933	\$4,840,429	\$4,840,429	\$4,840,429
RTCs	\$200,000	\$1,995,000	\$1,995,000	\$1,995,000	\$2,094,750	\$2,094,750	\$2,094,750	\$2,199,488	\$2,199,488	\$2,199,488
Total	\$30,889,224	\$31,666,731	\$32,215,573	\$32,847,267	\$34,527,182	\$37,387,465	\$42,057,951	\$43,891,869	\$56,857,550	\$61,653,340
Projected Budget	\$30,889,224	\$28,061,655	\$28,061,655	\$28,061,655	\$28,061,655	\$28,061,655	\$28,061,655	\$28,061,655	\$28,061,655	\$28,061,655
Cost Recovery Required	\$0	\$ (3,605,076)	\$ (4,153,918)	\$ (4,785,612)	\$ (6,465,527)	\$ (9,325,810)	\$ (13,996,296)	\$ (15,830,214)	\$ (28,795,895)	\$ (33,591,685)

Notes:

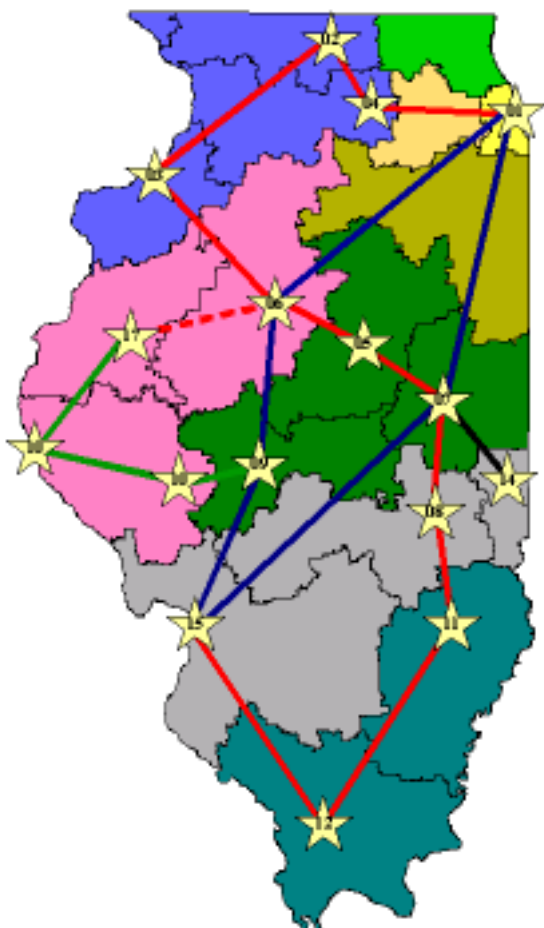
1. Fiscal year 2002 budget includes addition of funds from ISBE revolving fund.
2. Fiscal years 2003-2005 projected budgets are based on flat state appropriations, level e-rate funding, and no funds applied from adoption of cost recovery policies.
3. Fiscal year 2002 RTC costs are funded by a previous grant originating in fiscal year 2000 that ends June 5, 2002. Funds allocated for RTC operations represent the remainder of FY 2002 operating costs including the lapse period ending mid-August 2002.
4. Fiscal year 2002 Backbone and Access costs are based on actual expenditures. The fiscal year 2002 budget proposal incorporates anticipated reductions in costs as a result of renegotiated contract pricing, elimination of CMS administrative fees, and reductions in the cost of Internet egress.

Appendix D
Backbone Network Circuit Projections Based on Growth Trends
Fiscal Year 2003
 (September 2001)

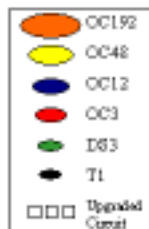
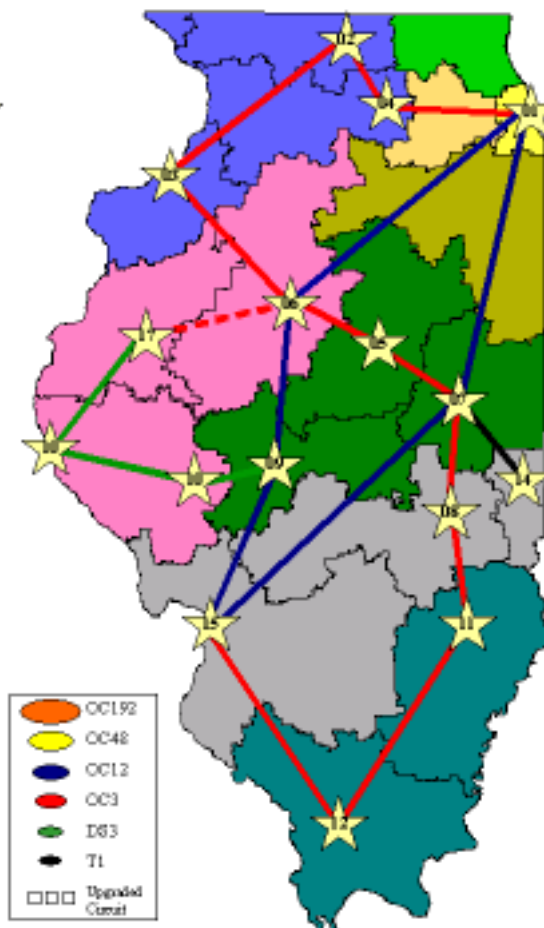
Slow Growth



Average Growth

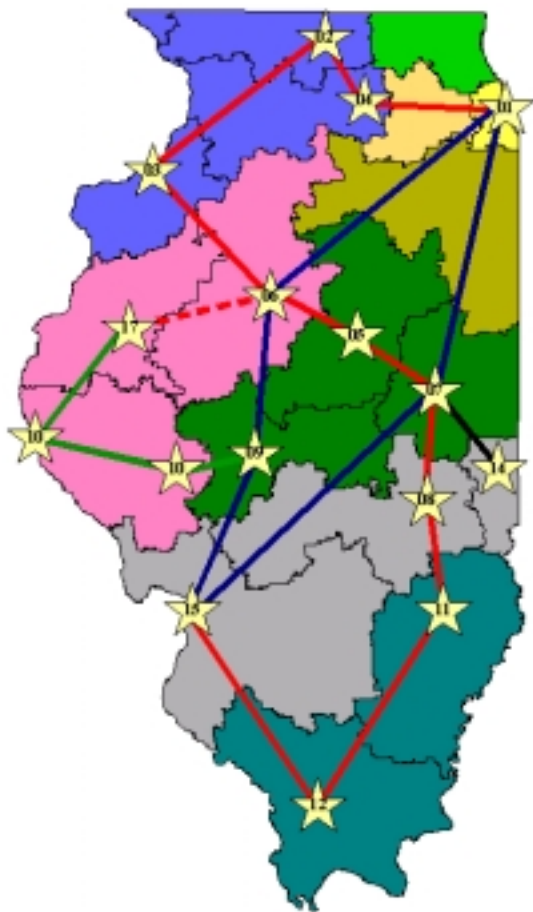


Fast Growth

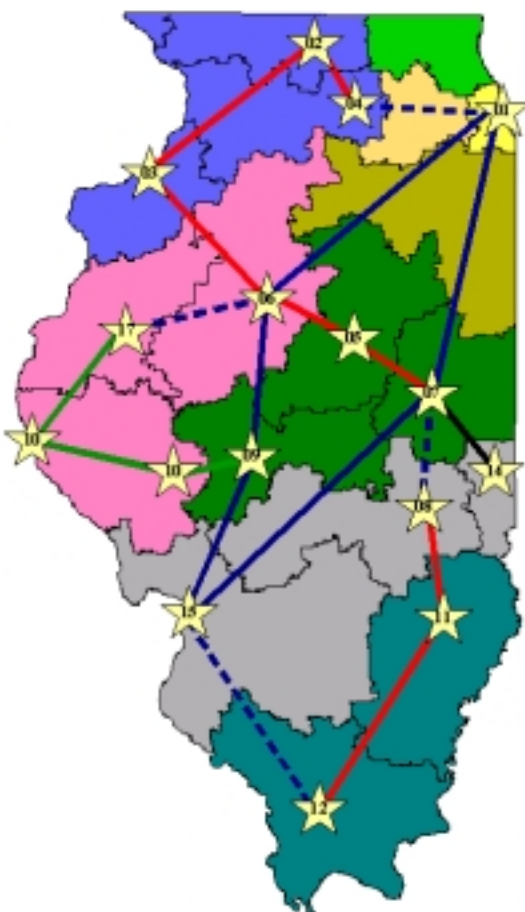


Appendix E
Backbone Network Circuit Projections Based on Growth Trends
Fiscal Year 2004
 (September 2001)

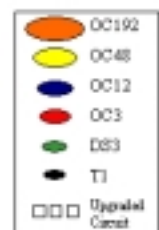
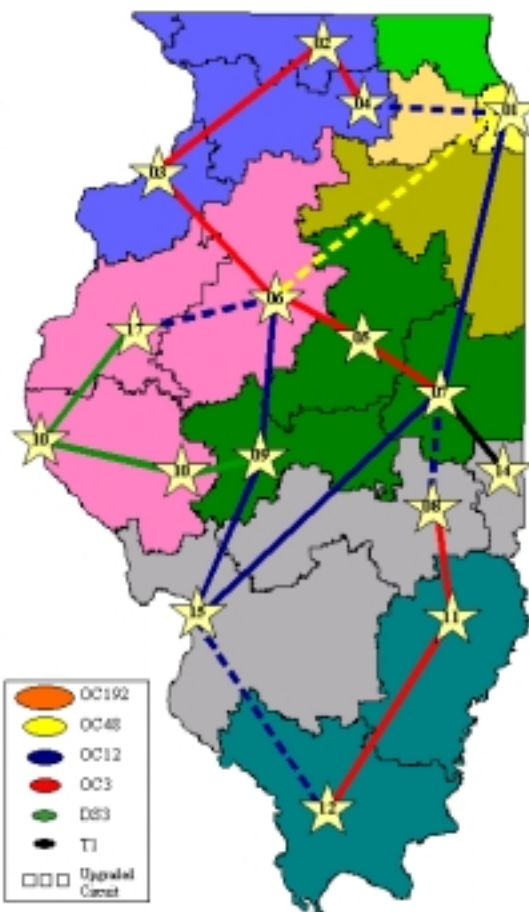
Slow Growth



Average Growth

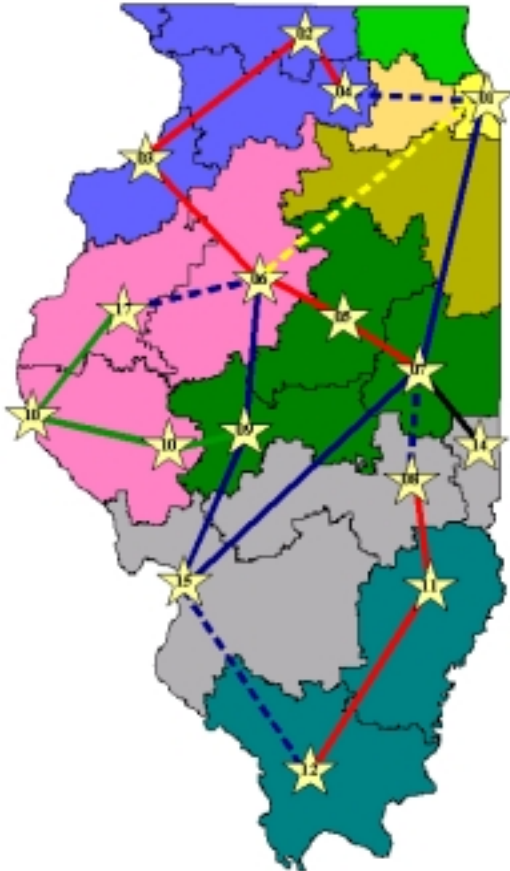


Fast Growth

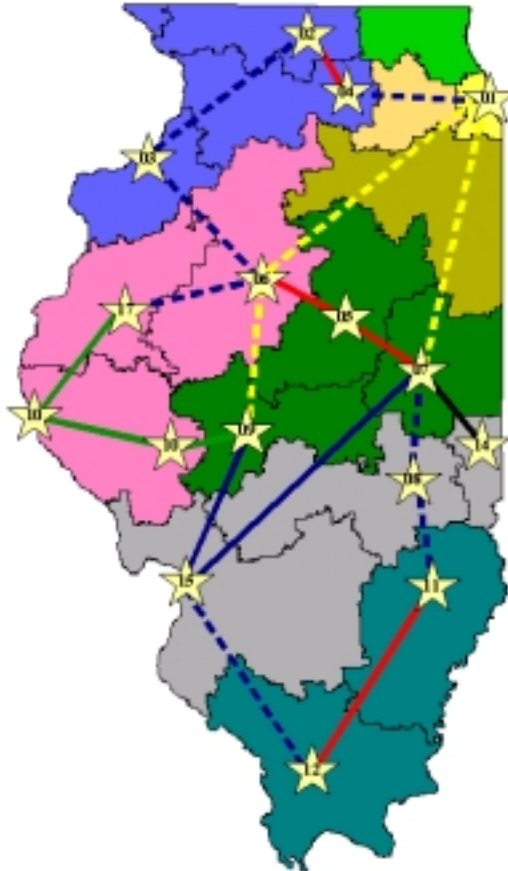


Appendix F
Backbone Network Circuit Projections Based on Growth Trends
Fiscal Year 2005
(September 2001)

Slow Growth



Average Growth



Fast Growth

