

# Broadband Evaluation and Planning Models

## 1. Cover Sheet (with original signatures)

Attached

## 2. Narrative

### a) Applying Agency

The Shawnee Library System is one of nine multi-type library systems in the state of Illinois. The Shawnee Library System is a regional library system, funded through the office of the Illinois Secretary of State, covering 12,719 square miles in 32 counties in southern Illinois with a population base of 645,365. Located in Carterville, the Shawnee Library System serves a region of Illinois that is often neglected by the larger telecommunications providers and fiber optic providers, but this doesn't lessen the need for state-of-the-art connectivity for all of our libraries. If anything the lack of high-speed access to our residents heightens awareness of the need and importance for each library in Illinois to provide a quality experience through technology for the people of Illinois.

The Shawnee Library System is well positioned and equipped to serve as manager and fiscal agent for the Broadband Evaluation and Planning Models grant. Troy Brown, Information Technology Manager and project director, has hands-on knowledge with libraries and their technology needs. Mr. Brown serves on the Illinois Century Network's Advanced Engineering Task Force, Lt. Gov. Pat Quinn's Broadband Development Committee, ILLINET Network Advisory Council (INAC), has participated in multiple focus groups by the Bill & Melinda Gates Foundation for broadband projects, and works closely with all the libraries in the Shawnee Library System on a daily basis. He brings an understanding of what it will take, and what a prospective vendor will need to provide, for a project of this type.

Project Co-Director Joe Sciacca has over 25 years of professional library experience and has a first-hand understanding of the technology issues facing the libraries of Lincoln Trail Libraries System. Mr. Sciacca has experience in developing and maintaining the technology infrastructure of LTLS and conducting workshops in Web 2.0 applications for library web development. Mr. Sciacca worked directly on telecommunications issues with LTLS automated libraries previously connected to the LTLS wide area network and assisted libraries in transitioning to connectivity via the Illinois Century Network. Mr. Sciacca works extensively with LTLS member libraries in developing technology plans, completing E-rate applications, and planning for telecommunications services. He has a broad perspective on both the technical aspects of planning for bandwidth capacity, and also the related issues of public services, policy development and financial planning.

The Shawnee Library System is able to initiate grant activities when the grant is awarded and is able to subsidize reimbursable expenditures pending reimbursement from grant funds.

## **b) Project Description/LSTA Purpose**

The T-1 (1.5Mbs) data circuit was such a quantum leap above the slow dial-up and 56Kbs circuits previously used by libraries that library planners were lulled into a false sense of complacency that the bandwidth needs of libraries were solved for the foreseeable future. This belief was based on the false premise that the bandwidth needed for library services would remain stable. However, the explosion of rich content available to Internet users, and the desire of users to access audio, video, gaming, Web2.0 applications, and other multimedia content has quickly outgrown the bandwidth of many libraries. Many libraries are discovering that the level of bandwidth that seemed adequate just a year ago is no longer serving the expanding need for access. While we have seen widespread adoption of T-1 connections to schools and public libraries, this level of bandwidth can not be considered as the long-term goal for libraries because of the rapidly increasing demand for services requiring access to greater bandwidth capacity.

### **Technology is bringing more – not less – public library use**

In the recent publication "Public Library Funding & Technology Access Study 2006-2007" by the American Library Association it was shown that seventy-three percent of public libraries report they are the only source of free public access to computers and the Internet in their communities. About one-third of Americans still do not own desktop computers or have Internet access at home. At the same time, more people are visiting their local public libraries – 1.3 billion visits in fiscal year 2004, up from 821.6 million a decade earlier (more than 4.6 percent annual growth).

Libraries clearly have a vital role to play in being a key access point to the Internet for a large part of their user community, and many libraries are the sole Internet access point for some of their users. It is vital that libraries have the tools to evaluate and the knowledge to secure adequate bandwidth to support the access needs of their community.

### **Planning for adequate bandwidth affects all types of libraries**

The need for continuous evaluation of the bandwidth needs of libraries is not limited to public libraries. Indeed school, special and academic libraries have special considerations concerning planning for adequate bandwidth for library users within the context of their parent institutions. School libraries, for example, typically obtain Internet connectivity through the school building in which they are located, and share their bandwidth with other activities in the building. In other cases, multiple libraries share a single connection to the Internet. Libraries that share their Internet connectivity with other libraries or with other non-library users in their building may not directly control decision-making regarding bandwidth capacity, however it is a goal of this project to provide school, special and academic librarians with knowledge and tools to estimate the bandwidth needs of their library users. This information can be used to make the case for increased bandwidth capacity for library users in situations where bandwidth is shared.

### **On defining a minimum standard bandwidth level**

Bandwidth needs vary from library to library based on what Internet services are being accessed, the number of computers that are connecting simultaneously and sharing a given Internet connection. It isn't feasible to specify an arbitrary minimum acceptable bandwidth level that would be appropriate for all libraries because each library's situation is potentially different in terms of the services they want to support, the number of computers with Internet access, and the availability of wireless connectivity for patron computers. The approach we will take in this project is to

develop an online calculator tool which will allow the library planner to identify the services the library wishes to offer and the number of computers the library will make available for staff and patron use. The calculator will enable the user to calculate the minimum bandwidth needed for that library to meet their projected service need.

**Can libraries continue to add services and resources which require substantial retraining and retooling of librarians and library technology infrastructure?**

The 2007 ALA study found that many libraries have reached or are nearing their maximum capacity for space, bandwidth, and the additional burden placed on staff support for technology. We intend to find out how well Illinois libraries are positioned to expand bandwidth intensive applications.

Below is just a sampling of services used within libraries that consume precious bandwidth on a library's network:

- Social Networking (e.g. Myspace, Facebook);
- Video Services (e.g. YouTube, Google Video);
- Online Gaming (e.g. Runescape, World of Warcraft);
- Audio Services (e.g. E-books, MyMediaMall, NetLibrary);
- Online Databases (e.g. EncartaOnline, HeritageQuest, other full-text databases);
- Public WiFi HotSpots (enabling patron PCs to share library bandwidth)
- Training rooms within the library
- Digitization projects
- Homework sites that have video tutorials and multimedia included with the site.
- Online Meetings/Trainings (e.g. Wimba, OPAL, iLINC)
- Online Webinars/Institutes/CE Offerings (e.g. College of DuPage, etc.)
- General Internet browsing that includes more and more multimedia and flash presentations that must be downloaded to the local computer before playing.
- Integrated Library System (ILS) software used by each library to connect to their LLSAP or in-house automation system.

As libraries embrace these new technologies, their patrons will see their library as a leader in the community and look to the library as an institution of innovation and education.

The project relates directly to the LSTA purpose of exploring "services for learning and access to information and educational resources in a variety of formats, in all types of libraries, for individuals of all ages"

This proposal directly addresses Goal 4 from the *Illinois Long Range Plan for the Use of LSTA Funds 2008-2012*, which states, "Provide tools for the future to facilitate the ability of libraries to lead their communities through planning, research, innovation, partnerships, best practices, and discovery to improve the quality of life of Illinoisans." Without sufficient bandwidth in their libraries, implementing these tools will be wasted. If patrons come into the library and the computers are equipped with great Web2.0 technologies, but accessing them is too slow, they will become frustrated and not use them. It is great to have all these new applications available to us, but without the proper backbone to the Internet, they are useless. That is why libraries need knowledge and tools to determine their minimum bandwidth needs.

The Illinois Century Network (ICN) has already recognized the need for more bandwidth to libraries and schools and has increased it's baseline bandwidth to 8Mbps,

up from 1.5Mbs. Fiber optic communication is becoming more of a reality throughout Illinois, but still has a long way to go before it is available to all libraries. As providers enter a community and provide fiber optic connections for libraries, those providers should be encouraged to connect to the ICN and provide the fiber connection for the library to connect to the ICN.

### **c) Action Plan**

The Broadband Evaluation and Planning Models grant directly addresses the *Strategic Plan for Technology and Telecommunications: Action Plan for FY09* goal which states: "Define and address minimally acceptable connectivity standards for Internet services in libraries anticipating 2.0 advances..."

By investigating where libraries are currently in Illinois, where they should be, and what their future needs will be in 3 to 5 years, it is hoped that a clear path will be designed for libraries to follow to anticipate the needs their library will face as they accept and implement Web2.0 initiatives. Even if libraries don't implement Web2.0 initiatives, they will be directly affected by Web2.0 as their patrons look to these technologies on the Internet to fulfill their needs. Below are the steps that need to take place to make this grant successful:

We will form a project Advisory Committee to assist in identifying issues for the research vendor to address. The advisory committee will be formed with representation from around the state including the Illinois Century Network, the regional library systems, agencies that contain libraries, and the library community.

We will recruit, select, and contract with a professional research firm with expertise in the assessment of technology and telecommunications needs. The firm will be selected through an RFP process.

The successful vendor will be asked to provide the following requirements:

- Assess the current state of bandwidth usage for libraries in the state of Illinois.
- Collect information on the services used by libraries that consume bandwidth by both the staff and the patrons.
- Identify how much libraries are currently spending on Internet bandwidth.
- Identify what keeps libraries from investing in Web2.0 technologies.
- Explore possible alternatives to purchasing more bandwidth through use of other technology like traffic shapers.
- Provide definitions and terminology for libraries to use when negotiating with vendors on their future bandwidth needs.
- Develop planning models for future needs of libraries and the bandwidth requirements that they will face.
- Develop an online calculator that libraries can use to enter the number of computers in their library, including computers connected wireless, if applicable, as well as services they use and provide a forecast for the amount of bandwidth they will need in 3 to 5 years.
- Calculate the current bandwidth needs of many Web2.0 projects so projection of these needs is more accurate.
- Provide a report of their findings that would include an overview of the current bandwidth usage and needs for libraries on a state level.

- Provide recommendations for various levels of libraries and bandwidth requirements for each level.
- Attend 50% of the focus group discussions held in Illinois in person. The other 50% can be attended through conference calls or other conferencing technology.
- Write a user-friendly handbook for library planners documenting the use of the bandwidth calculator, interpreting of bandwidth graph data, explaining key terminology in the telecommunications area, and describing planning models for assessing and upgrading bandwidth capacity.

We will work collaboratively with the research firm to develop an assessment strategy and methodology to determine where we are, where we should be, and our future needs with bandwidth needs. The specific methodologies to be used will be determined in consultation with the research firm. We anticipate that a variety of techniques will be used including surveys, interviews, on-site visits and observations, focus groups, and analysis of existing data.

We will assist the research firm in securing a high level of cooperation in the data collection phase from the library community, the Illinois State Library, and the Illinois Century Network.

We will assess the possibility of creating an online portal for libraries to use, that will let them see their current bandwidth usage. Bandwidth usage graphs are a valuable tool for visualizing the traffic on a library's data circuit in near-real time. A commonly used tool for generating and viewing this data is MRTG. MRTG graphs depict the traffic flow of data into and out of the library on a graph that shows the maximum capacity of the library's connection as 100%. Lines on the graph showing data flowing into the library depict data being downloaded from the Internet by computers in the library, while lines showing data flowing out of the library depict remote users accessing content hosted on library computers, such as the library's web site. Using these graphs, library administrators can quickly obtain a visual snapshot of the bandwidth usage of all computers and wireless connected devices sharing the library's connection. Data can be viewed for the current day, as well as in weekly and monthly historical charts that allow larger patterns in bandwidth usage, such as daily or seasonal cycles, to be seen. A sample MRTG graph is attached to this proposal for illustrative purposes.

We will identify the best way to make the bandwidth calculator available to Illinois libraries, and identify the feasibility of featuring the project and providing links to the calculator on an existing platform such as WebJunction Illinois or ICN, or providing it as a separate application with links from a wide range of locations.

We will make the results of the bandwidth analysis available online and will make the bandwidth calculator and bandwidth usage graphs available to Illinois libraries.

We will work with the research firm to write a non-technical handbook for library planners. The handbook will include a summary of the key findings of the data analysis, a model for evaluation of the library's minimum bandwidth needs, an instructional section on the use of the online bandwidth calculator, an explanation of the use and interpretation of bandwidth graphs, a glossary of important terms and concepts relating to bandwidth and telecommunications products, and a guide to working effectively as an informed consumer with telecommunications vendors when seeking to upgrade bandwidth.

#### **d) Target Audience and Needs Assessment**

The driving rationale behind this project is a need for library users to have access to adequate levels of network bandwidth when they use the library's Internet connection to access information and resources. Activities will focus on increasing awareness and knowledge among library staff, trustees, agency administrators, building principals and district superintendents about estimating bandwidth needs and securing adequate bandwidth. These activities are ultimately for the benefit of library end users.

Bandwidth and network limitations can limit the library's ability to provide services desired or demanded by users. It is critical for libraries to continually assess the library's bandwidth needs to keep up with current usage patterns and to take advantage of new services. Bandwidth may be an invisible commodity, however, an inadequate supply of bandwidth will have a visible and negative impact on the library's ability to meet user expectations. Libraries can not afford to ignore the needs of their tech-savvy users. For these users there is an expectation of ubiquitous and sufficient bandwidth.

The primary target audience for this project is librarians and governing board members for Illinois libraries. It is crucial for these library planners to be aware of the need to plan proactively to meet the increasing demand for bandwidth. They need to be able to reasonably estimate the amount of bandwidth necessary to provide desired online services to their users. They must also be knowledgeable about the options available to them when they speak to vendors of bandwidth services.

An additional stakeholder on the issue of planning for adequate bandwidth is the Illinois Century Network. The ICN is already planning at the state level for the future growth of the ICN backbone infrastructure. An important part of this planning is a need to encourage libraries to increase bandwidth as needed, and also a need to forecast the demand for increased bandwidth from libraries. By communicating directly with Illinois libraries about planning for bandwidth growth, libraries will be more actively thinking about this issue and the ICN will be better informed of libraries' plans and will be better able to provision the added capacity that will be needed.

Unless a lack of bandwidth causes libraries to notice a problem, library planners are not likely to be aware of the need to plan for higher bandwidth capacity. In the past several years, with the migration of most libraries to connections via the Illinois Century Network, most libraries connected to the ICN via a T-1 line. For most libraries this capacity was greater than the demand at that time. Many libraries were happy to have the added capacity compared to 56Kbps dial up or dedicated 56Kbps connections they had previously. The T-1 connection, approximately 24 times the capacity of a 56K circuit, was viewed as being able to meet the library's needs for the foreseeable future.

The problem with the perception of some librarians that the T-1 is the terminal capacity is that the explosion of bandwidth intensive content means that "normal" Internet usage demands more bandwidth than what was considered normal in the past. Even if libraries remain relatively constant in the number of work stations they have for Internet access, the applications being accessed by users are more bandwidth intensive than before, with increased access to multi-media content and

interactive applications. The level of bandwidth that was adequate in the past may not be adequate in the future.

**e) Outcomes and Evaluation**

The project will produce several important tangible outcomes of value to the Illinois library community:

1. A comprehensive evaluation of broadband needs for Illinois libraries.
2. Development of tools for evaluation of broadband needs by library planners.
3. Models for implementing bandwidth upgrades.
4. Development of an online bandwidth calculator.
5. Development of an online portal to make MRTG bandwidth usage graphs available to library planners.
6. Development of a handbook for library planners on evaluation of bandwidth needs, the use of the online bandwidth calculator, use and interpretation of bandwidth charts, a glossary of bandwidth and telecommunications terminology

Because of the diversity of Illinois both geographically and technologically, any grant that would be chosen to accomplish these goals must be done in cooperation with as many libraries as possible. Choosing a small demographic to represent the entire state will not accomplish the same results. Hiring an outside unbiased vendor allows us to set priorities and yet see beyond the boundaries and struggles of our own areas. The outcomes of this grant will help any type of library of any size calculate a future plan of where they are going to need to be.

Identifying the need for more bandwidth and the ways to get it is just the beginning for most libraries though. With the work of the Illinois Century Network to continually negotiate low circuit costs to the citizens of Illinois, these projections in bandwidth needs can turn from a dream to a reality.

**f) Timetable**

|               |   |
|---------------|---|
| Oct 1, 2008   | Grant awarded. Start RFP creation. Form Advisory Committee.                 |
| Oct, 2008     | Issue RFP. Attend required grant management workshop for project directors. |
| Nov, 2008     | Review RFPs and begin selection process                                     |
| Nov 30, 2008  | Notify vendor of successful RFP bid   |
| Dec 1, 2008   | Vendor starts data gathering and contractual work                           |
| May 1, 2009   | Vendor finishes work and submits findings and results                       |
| June 30, 2009 | Final report and calculator are made available                              |
| Sept 1, 2009  | Final report submitted to the Illinois State Library by e-mail              |

All grant funds will be obligated Oct 1, 2008 - June 20, 2009 with all funds expended no later than Aug 15, 2009.

### **g) Personnel**

Troy Brown, Shawnee Library System, will be the Project Director. Joe Sciacca, Lincoln Trail Libraries System will be the Project Co-Director. These positions will be responsible for all aspects of management of the project. This will include working with the vendor that will be contracted, as well as communications with the regional library systems, Illinois libraries, and the Illinois Century Network. The Project Director and Co-Director will be assigned to the project for 5% of their time, to be funded with grant funds, and regular salary will not be earned at the same time.

Grant funds will be administered by Joe Harris, Executive Director, Shawnee Library System.

An RFP will be issued to identify and contract with a vendor to conduct the research component of the project. The successful vendor will have demonstrated expertise in large scale evaluation and analysis to technology issues.

Shawnee Library System will be the fiscal agent for the project. We will partner with Lincoln Trail Libraries System and with the Illinois Century Network to implement the project.

Lincoln Trail Library System will make a major contribution to the project and will be involved at every level of project design and implementation. LTLS will designate Joe Sciacca as Project Co-Director and other members of the LTLS consulting team will contribute in project planning sessions and in working collaboratively with Shawnee Library System to orient the research vendor to the library landscape in Illinois.

The Illinois Century Network will be both a contributor to and a beneficiary of the project, as the planning and analysis of the bandwidth usage and needs of Illinois libraries will be of great value to ICN for network development. ICN will contribute to the project by working cooperatively in the planning phase, by assisting in compiling and making available data on existing library connections, by designating a liaison to the project, by participating in the project Advisory Committee, by communicating with the Regional Technology Centers about the project, and by helping to assess the feasibility of providing real-time bandwidth graphs to libraries.

### **h) Project Promotion**

We will promote the project by disseminating information to the library community about the objectives and activities being conducted. We will communicate about the project in a variety of ways.

- Advertisement of the RFP
- Announcement of the selection of the successful research firm for the project.
- Providing periodic updates about the project to the library community via blog postings and email updates.
- Mailing of project description information to libraries.

- Exploring the feasibility of featuring the project on library websites, the ILSDO website, WebJunction Illinois, library association web sites, and other appropriate platforms.
- Seeking opportunities to present updates about the project at regional and state level meetings and conferences.
- Production of written final report of findings by the research firm.
- Production of handbook for library planners.

We anticipate the outcomes from this project will be of interest to libraries in other states as well as Illinois, and we believe the project has the potential to place Illinois in the forefront of efforts to address the bandwidth planning issue.

### **i) Project Sustainability**

The project will provide a range of outcomes that are intended to assist libraries in evaluating their broadband needs and planning to upgrade their level of bandwidth when needed.

The sustainability plan for this project will focus on several activities to maintain a high level of awareness of the project and to maintain the tools developed by the project.

New web services that impact the bandwidth needs of libraries and that signal new trends in data traffic patterns will be monitored.

The data that drives the bandwidth calculator will be reviewed annually and revised as needed to assure that the calculator stays up-to-date and continues to reflect the major online services that libraries will be providing to users.

The access to web-accessible bandwidth graphs for library connections to ICN will be reviewed annually with ICN and revisions will be recommended to ICN as needed to reflect changes in library data circuits.

### 3. LSTA Budget Chart

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**FY09 LIBRARY SERVICES AND TECHNOLOGY ACT GRANT APPLICATION  
SECRETARY OF STATE \* ILLINOIS STATE LIBRARY**

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**LSTA BUDGET CHART**

Complete the LSTA BUDGET CHART for use of LSTA grant funds, appropriately categorizing expenses.

| <b>Budget Category</b>                             | <b>Explanation</b>                                     | <b>Amount<br/>(whole dollars only)</b> |
|--|--|--|
| Library Materials                                  | Books, non-print, software                             |  |
| Capital Outlay                                     | Equipment valued \$500 or more                         |  |
| Professional Contracts                             | Hiring an individual on contract                       |  |
| Contractual Services                               | Hiring an agency on contract                           | \$106,000                              |
| Personnel  | Salaries and benefits for additional agency staff      | \$ 8,400                               |
| Travel & CE for Staff                              | Agency travel and meeting registrations                | \$ 1,000                               |
| CE & Meetings for Others                           | Travel, registrations and honorariums for others       | \$ 3,600                               |
| Public Relations                                   | Advertising done by outside firm                       |  |
| Supplies, Postage, Printing                        | Equipment valued under \$500, and supplies             | \$ 5,000                               |
| Phones & Telecommunications                        | Phone charges and rental                               | \$ 1,000                               |
| Equipment Rental, Repair & Maintenance             | Rental, repair, insurance and maintenance of equipment |  |
| <b>TOTAL GRANT FUNDING TO SUPPORT THIS PROJECT</b> |  | <u>\$125,000</u>                       |

#### 4. LSTA Budget Explanation

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**FY09 LIBRARY SERVICES AND TECHNOLOGY ACT GRANT APPLICATION  
SECRETARY OF STATE \* ILLINOIS STATE LIBRARY**

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**LSTA BUDGET EXPLANATION**

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|--|
| <b>Library Materials</b><br>None   |
| <b>Capital Outlay</b><br>None  |
| <b>Professional Contracts</b><br>None  |
| <b>Contractual Services</b><br>Main contract with research vendor selected through RFP. Budgeted amount is estimated based on comparison costs for similar large scale research projects.  |
| <b>Personnel</b><br>Salary for Project Director and Co-Director at 5% FTE including benefits.  |
| <b>Travel &amp; CE for Staff</b><br>Travel by staff of project partner agencies for project meetings, advisory committee meetings, library visits and focus group meetings.<br>Attendance of staff at required ISL grant management meeting.   |
| <b>CE &amp; Meetings for Others</b><br>Travel to project meetings for staff of other cooperating agencies including advisory committee meetings, and travel for participants in focus group sessions. Budget is based on 8 overnight stays @ \$100 per night for meeting attendance, and mileage reimbursement for travel for 3 focus group sessions and 3 advisory committee meetings @ 100 miles @ \$.48.5/mile. |
| <b>Public Relations</b>  |
| <b>Supplies, Postage, Printing</b><br>Informational mailings to libraries and advisory committee about the project and project activities. Budget is based on 2 anticipated mailings of approximately 3 pages to 1500 libraries at \$1.60 per addressee.   |
| <b>Phones &amp; Telecommunications</b><br>Communication with research vendor and others  |
| <b>Equipment Rental, Repair &amp; Maintenance</b><br>None  |

**5. Local Contribution/Match Budget Chart**

**FY09 LIBRARY SERVICES AND TECHNOLOGY ACT GRANT APPLICATION  
SECRETARY OF STATE \* ILLINOIS STATE LIBRARY**

**LOCAL CONTRIBUTION/MATCH BUDGET CHART**

| <b>Budget Category</b>                     | <b>Explanation</b>                                     | <b>Amount<br/>(whole<br/>dollars only)</b> |
|--|--|--|
| Library Materials                          | Books, non-print, software                             |  |
| Capital Outlay                             | Equipment valued \$500 or more                         |  |
| Professional Contracts                     | Hiring an individual on contract                       |  |
| Contractual Services                       | Hiring an agency on contract                           | \$   |
| Personnel                                  | Salaries and benefits for additional agency staff      | \$10,000                                   |
| Travel & CE for Staff                      | Agency travel and meeting registrations                | \$   |
| CE & Meetings for Others                   | Travel, registrations and honorariums for others       | \$   |
| Public Relations                           | Advertising done by outside firm                       |  |
| Supplies, Postage, Printing                | Equipment valued under \$500, and supplies             | \$ 500                                     |
| Phones & Telecommunications                | Phone charges and rental                               | \$   |
| Equipment Rental, Repair & Maintenance     | Rental, repair, insurance and maintenance of equipment |  |
| <b>TOTAL MATCH TO SUPPORT THIS PROJECT</b> |  | <u>\$10,500</u>                            |

## 6. Local Contribution Budget/Match Explanation

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### FY09 LIBRARY SERVICES AND TECHNOLOGY ACT GRANT APPLICATION SECRETARY OF STATE \* ILLINOIS STATE LIBRARY

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#### LOCAL CONTRIBUTION/MATCH BUDGET EXPLANATION

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|--|
| <b>Library Materials</b><br>None   |
| <b>Capital Outlay</b><br>None  |
| <b>Professional Contracts</b><br>None  |
| <b>Contractual Services</b>  |
| <b>Personnel</b><br>In-kind contribution for participation and oversight of the project by the system directors of Shawnee Library System and Lincoln Trail Libraries System. Anticipated contribution of time to the project above 5% FTE by Project Director and Co-Director, and contribution of time by consultants of each system in addition to the project personnel. |
| <b>Travel &amp; CE for Staff</b>   |
| <b>CE &amp; Meetings for Others</b>  |
| <b>Public Relations</b>  |
| <b>Supplies, Postage, Printing</b><br>In-kind support of unreimbursed office supplies and photocopies by partner agencies.   |
| <b>Phones &amp; Telecommunications</b>   |
| <b>Equipment Rental, Repair &amp; Maintenance</b><br>None  |

## **7. Required Supporting Documentation**

The following supporting documentation is attached:

### Required Supporting Documentation:

1. Signed CIPA Certification Sheet
2. Letter of Commitment from the Illinois Century Network/CMS
3. Letter of Commitment from Lincoln Trail Libraries System

### Additional Supporting Documentation:

1. Letter of support from Alliance Library System
2. Letter of support from DuPage Library System
3. Letter of support from Lewis & Clark Library System
4. Letter of support from Metropolitan Library System
5. Letter of support from North Suburban Library System
6. Letter of support from Rolling Prairie Library System
7. Letter of support from Prairie Area Library System
8. Sample MRTG Bandwidth Graph