

## **LIBRARIES OF MIDDLESEX AUTOMATION CONSORTIUM**

### **TECHNOLOGY PLAN, 2007-2010**

**VISION:** The Libraries of Middlesex Automation Consortium (LMxAC) provides cutting edge electronic library services to the patrons served by its member libraries through the sharing of people, planning, technology, resources and vision.

**PLANNING PROCESS:** LMxAC guides its technological development through regular monthly meetings of its Executive Board, active involvement of its Committees, and a Strategic Plan (currently being revised) which reflects our common vision. Our current goals and objectives are an outgrowth of that process and are based upon the extension of the accomplishments achieved in the implementation to date of our strategic planning efforts. In mid 2006 a new director was hired and is charged with updating the organizational plan in 2007. It is anticipated that the new strategic plan will impact the technology plan. If so it will be updated later in 2007. This plan has been authorized by the Consortium Board. The plan covers fiscal years (July through June) 2007/2008, 2008/2009, 2009/2010.

#### **GOALS AND OBJECTIVES (NJSL sections 1, 3 and 5):**

LMXAC is focused on helping our members to improve library services. We consider technology one of many resources we rely upon to help us to meet our service goals. To that end we have identified specific objectives and strategies related to the use of technology that are critical to our ability to meet our service goals.

#### **A. To assist libraries in the management of their collections through a shared integrated library system.**

1. Maintain and provide for the continued development of a shared computer facility operating integrated library system software to support the basic library functions of circulation, cataloging, public catalog access, patron registration. (ongoing)
2. Maintain and consistently improve a shared bibliographic database representing the complete materials holdings of its member libraries. Implement expanded loading of bibliographic records. (ongoing)
3. Provide and further customize public access to the libraries' shared bibliographic database available in World Wide Web format. (ongoing) (customization 2007)
4. Implement software modules that provide for electronic management of serials and acquisitions. (Spring 2007, Acq; Summer 2007, Serials)

5. Implement and promote use of email messages for patron hold, overdue and other notices (2007)
6. Explore the use of PDA-optimized communication so that libraries may make use of products like Pocket Circ and patrons may transfer data to PDAs. (2009)
7. Explore options for providing more sophisticated statistical reporting capabilities to our members. (ongoing)
8. Explore implementation of add-on services to enhance the use of the automation system. (Collection Agency, diacritics display, foreign language options for the catalog, etc. ongoing)
9. Work with our member libraries to further define service expectations and local service requirements. (ongoing)
10. Continue to work with libraries to implement and maintain PC management software. (ongoing)

**B. To assist our members in securing high-speed and reliable interlibrary data communications services.**

1. High speed telecommunications equipment and circuits will be maintained at the Consortium's central computer operation to link all libraries in a communications network, which is continually monitored for capacity and performance. (ongoing)
2. Access to the Internet will be maintained and expanded as bandwidth needs require. (ongoing)
3. Wireless connectivity will be provided and managed by LMxAC for service to bookmobiles and will be studied for improved access within library buildings. (2007)
4. Technical support will be provided to member libraries to understand and locally manage bandwidth usage and ongoing needs (2007)
5. Select and implement more sophisticated network monitoring software and other tools to assure the network is secure and functioning at its highest level (2008).
6. Explore the potential for high bandwidth connectivity through services such as Internet2 and technologies such as leased fiber, cable, etc. (2009) (Capital purchases may be required)
7. Maintain and upgrade a telecommunications infrastructure that allows members to communicate with LMxAC for support of member service activities. LMxAC, within the rules of the E-Rate program, regularly examines its phone service and

telephone equipment infrastructure. Plans for a new phone system are underway but will await funding. (2009)

**C. To provide access for our members to the widest possible range of library materials databases.**

1. Provide technical support and advice to libraries on the building and maintenance of library databases of catalog records, patron information and circulation data. (ongoing)
2. Participate in state and regional initiatives which promote the sharing of library materials, and which implement standardized open systems software will allow the users of member libraries access to a wide range of library databases within the state. (ongoing)
3. Participate in vendor-sponsored programs or other national programs that provide access to the library databases of out-of-state libraries. (ongoing)

**D. To explore and implement technology services designed to extend the library catalog and integrate search capabilities across a broader variety of information resources.**

1. Implement the Sirsi Single Search portal solution to connect disparate commercial databases for member libraries. (14 in 2007, 11 in 2008)
2. Explore the implementation of expanded portal services to include local services, local content and a more sophisticated user interface. (2008 – 2009)

**E. To provide technical and training support to all members of LMxAC and their library staff and to facilitate communication.**

1. Maintain a telephone help desk service, staffed during all hours of service operation observed by its member libraries. (ongoing)
2. Develop training and continuing education programs based on identified member needs. (ongoing)

3. Employ staff members with technical training to do onsite software installation and repairs to Consortium network equipment for its member libraries. (ongoing)
4. Using its own and contractual staff, LMxAC will provide both application-specific and generalized library automation training for its member library personnel. (ongoing)
5. In cooperation with its vendors and other library organizations, LMxAC will coordinate and share facilities and training opportunities in areas of mutual interest. (ongoing)
6. Develop a disaster recovery plan. (begin 2007, complete 2008)
7. Develop a communication plan that details what forms of communication we will use. We will examine the use of blogs, discussion lists and other types of forums to keep our members informed of all relevant activities and issues. (2008)

**F. To assist member libraries in acquiring, supporting and maintaining the technology necessary to achieve their service-related goals.**

LMxAC provides a variety of services to member libraries to assist them in the day to day management of technology in the library. Specific ongoing activities in this area include:

1. Negotiation of discounts with vendors whose products are of interest to libraries.
2. Purchasing support.
3. Providing (on a quarterly basis) updated workstation specifications. Providing annual reports on minimum standards and minimum specifications for workstations on the network.
4. Installation of computer and networking hardware and software.
5. Troubleshooting and consulting assistance.

Specific projects include:

1. Develop a comprehensive network security program including anti-virus, desktop lock down and PC management tools, to address both single-workstation as well as network wide security (ongoing).
2. Provide enhanced support for patron authentication, particularly in a wireless environment (2008).
3. Improve support for LMxAC WAN users by offering enhanced network security options, servers to provide in-network upgrades and general consulting services.

4. Investigate providing a program registration and calendaring tool. (2009)

## **TECHNOLOGY ASSESSMENT (NJSL sections 2, 4 and 7):**

The Libraries of Middlesex Automation Consortium is a not-for-profit organization formed by public and college libraries for the centralized administration and maintenance of computer systems for the support of specific library functions. Currently twenty-five libraries are members. The current systems supported offer the member libraries facilities for the cataloging and itemized inventory of library materials collections; record-keeping of patron information; circulation processing and documentation; public online catalog access; access to databases of non-member libraries; the optional access to commercially produced online services for periodical indexing and bibliographic information; and dedicated access to the Internet. All services are offered through a telecommunications network that is currently based upon an ethernet, TCP/IP LAN/WAN environment.

### **Telecommunications**

Member sites are connected to a frame relay switch via a T1 connection and the frame relay switches are connected to LMxAC via a T3 connection. LMxAC also maintains a separate T3 connection to the Internet. Libraries are equipped with Cisco 1841 routers with Cisco 2950 switches. Some libraries have added additional switch capacity.

LMxAC maintains 2 Cisco Pix firewalls, a Cisco 7507 switch and a Cisco 3846 which form the backbone of our telecommunications infrastructure.

### **Library Automation System**

Consortium services provide centralized technical staffing, housing and administration of all central computing and telecommunications hardware, administration of hardware and telecommunications contracts, telephone and field support for member library technical equipment and training support for member library personnel.

- LMxAC uses SirsiDynix Unicorn software which resides on a SUN server housed at LMxAC.

Running under Sun Solaris 9.0, the Unicorn software server is installed on a Sun Sunfire v880.

Power assurance/conditioning for the Unicorn software server is controlled by a Toshiba 10kVA 1200 series UPS.

- The iBistro web servers (4) house the web interface for the iBistro Online Catalog. Running under Windows Server 2003, the iBistro servers are installed on 4 Dell Poweredge 1750.

Power assurance/conditioning for the iBistro server is controlled by a Toshiba 10kVA 1200 series UPS.

- The training server houses a copy of the database information on the Unicorn software server for purposes of training and testing new software releases.

Running under Sun Solaris 9.0, the training server is installed on a Sun V240.

Power assurance/conditioning for the Unicorn software test server is controlled by a Toshiba 10kVA 1200 series UPS.

## **Email**

In addition to integrated library data and circulation management, LMxAC coordinates access to some commercial reference databases and to Internet services for its member libraries. Dedicated Internet and e-mail are managed through a Sun E250 Enterprise server.

LMxAC offers web hosting and support services for its members. A general web page for LMxAC is current on the web and is maintained by LMxAC staff.

## **Telephone**

LMxAC has a Toshiba phone system that supports 9 lines. We also have separate fax and support lines via cell phones and pagers.

## **Member Libraries**

LMxAC member libraries have a variety of technology available to them. They have, at a minimum a Cisco 1841 series Router, 12 port 10/100 Cisco 2950 Switch, and various computer operating systems including Windows 2000 and Windows XP. The libraries are wired with standard Category five cables, tested to 100 MB. These computers are connected to TLN through the use of the network protocol TCP/IP across TLN's WAN. Some libraries make use of networked printers and PC management software such as SAM by Comprise.

## **TRAINING (NJSL Section 3 and 6)**

LMxAC provides frequent training opportunities for staff of its member libraries in all aspects of the integrated library system software as well as in related automation topics. Training is offered to both professional librarians and support staff of member libraries. Training is offered at least four times per year, with refresher training in specific software modules offered at least annually. Both hands on and lecture/discussion formats are used for training, and sessions are offered both at LMxAC's training center and at member libraries. LMxAC does not directly train library users, since the member libraries offer technology training to their customers at the local level. LMxAC participates along with its members in training offered by the regional library cooperative as well as that offered by other statewide and regional library groups. For several years LMxAC has made its training facility available to other library groups, including INFOLINK, the Regional Library Cooperative, and the New Jersey State Library, for training sessions in technical areas. Planning is underway for furthering these cooperative efforts.

## **BUDGET (NJSL section 8)**

	<b>2007/2008</b>	<b>2008/2009</b>	<b>2009/2010</b>
Hardware	\$ 30,000	\$ 33,000	\$ 36,000
Software	\$150,000	\$156,000	\$173,000
Telecommunications	\$125,000	\$130,000	\$130,000
Database Licensing	\$ 10,000	\$ 12,000	\$ 15,000
Staff Training	\$ 6,000	\$ 6,500	\$ 6,500
Capital Costs*	\$ 50,000	\$ 50,000	\$ 85,000

\* Year 1 includes costs to expand/enhance the online catalog and/or statistical access to the automation system. Years 2 and three may be combined to purchase new routers.

## **EVALUATION (NJSL section 9)**

LMxAC is a small central service bureau which offers automation services to its member libraries, which in turn offer direct service to the public. LMxAC libraries collectively serve a population of 713,000, and that they all offer liberal reciprocity of usage with each other. Feedback from the member libraries regarding their implementation of technology and its effect on their users will be obtained in reports from the staff of the member libraries. The primary means of evaluating this technology plan will be an annual assessment of the accomplishments of the specific objectives described in the Goals and Objectives section (A through E).

Additionally, during the fall of each year, LMxAC will conduct a survey of terminals connected at each of its member library sites for the purpose of establishing the size and scope of its network.

LMxAC, through its staff review process does evaluation of staff use and adaptation to technology on an annual basis. The performance of each staff member of LMxAC is reviewed with regard to the responsibilities of their position and they are given an opportunity to discuss needs for additional training at that time.

## **IMPACT OF E-RATE FUNDS**

LMxAC passes all E-Rate discounts directly to its member libraries. Decisions about how to use savings are local decisions. The steady increase in the bandwidth capabilities of our libraries attests to the overall impact of this program on our libraries' individual ability to provide enhanced technology-based services to their patrons.