

# **Albany Public Library**

Albany, New York

Technology Plan

July 1, 2010 – June 30, 2013

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## **Mission Statement**

*Albany Public Library educates, entertains and empowers our community.*

## **Introduction**

Albany Public Library (APL) is committed to incorporating current technologies into its services and operations for library customers and staff.

During the term of this technology plan (2010-2013), APL will continue to evaluate the technologies that were implemented during the last plan and take any appropriate and necessary steps to maintain and support them.

Over the last three years APL has implemented a Branch Improvement Plan (BIP), a facilities project involving major renovations of three buildings and the construction of two new sites. The Main Library and the North Albany Branch were not included in this project and are therefore due for some technology upgrades to bring them up to the same systems and service levels as our newer sites, including plans to evaluate and upgrade the network infrastructure as needed, plan and budget for adequate network capacity and bandwidth, and upgrade and replace computers and servers. In addition, we will continue to integrate the new technologies introduced with our BIP project, and work toward replacing telephone systems at the Main Library and North Albany Branch.

This document describes in greater detail the library's ongoing plans and strategies for ongoing technology improvements.

## **Albany Public Library: Current Technology Profile**

Albany Public Library (APL) has a Central Library, 6 branches and a bookmobile.

APL is in the final stages of implementing a major Branch Facilities Improvement Plan (BIP), which has resulted in major renovations of three branches and construction of two new branch sites. Incorporation of new technologies and technology-based services was a major component of the BIP project.

As a result of the BIP project, the number of public access computers increased by 75% (from 53 to 120) while staff computers increased by 20% (from 73 to 91). Servers and supporting public use computers such as online public access catalogs and computers for managing computer and printer access increased 53% (from 31 to 65). Over the course of the BIP project, 60% of APL's computer inventory was increased or replaced with new computers and peripherals. A consolidated cash management system with a public access portal (Library Payment Center) at each site was added, allowing our Chief Financial Officer to monitor and assess public financial transactions and enabling our customers to use credit cards at public service desks as well as to pay fines and printing costs online and at Library Payment Centers at each site.

During the next three years APL will be focusing on the full implementation of these new technologies, upgrading our technical infrastructure to maintain and support these systems and upgrading computers and infrastructures at locations not covered by the BIP project.

Together, APL's Main Library and North Albany Branch host approximately 35% of our overall computer inventory. Both sites will need technology upgrades to bring them up to the same level of service as our new and renovated sites. The Main Library continues to need a new telephone system which can be effectively integrated with the systems at the new locations for centralized management. Networking equipment and telecommunications data lines will need to be upgraded to provide adequate bandwidth for our burgeoning public access computing services. Robust wireless access support at each site has become increasingly important and necessary in an environment where more and more of our customers have their own laptops and other wireless devices for Internet access.

Staff training and support for all library personnel, adequate technology staffing, effective hardware and software tools and training are increasingly important, particularly for information technology staff members. In a time of

tight financial constraints, maximizing our staff and technology resources is increasingly critical as we continue to transition into our first years of service in our newly expanded library branches.

The Automation Services department centrally manages the library's technology infrastructure including hardware, software and support and maintenance services. Most of our seven sites have a local area network (LAN) with two Domain Controller (DC) servers. Our new Citrix sites each host two Citrix servers. APL currently has approximately 40 physical and virtual servers. All public access computers are connected to network printers. All staff computers have access to printing through individually installed printers or shared network printers and networked photocopiers. The APL network uses the TCP/IP protocol over an extensive LAN (Local Area Network) network with separate subnets and VLANs (Virtual Local Area Network) established for security purposes.

APL's wide area network (WAN) connects each branch library to the Main Library, the service hub for access to the Internet, electronic resource searching, the Integrated Library System (ILS – online catalog and circulation system software) provided by the Upper Hudson Library System, and staff access to email accounts and shared data files.

APL serves as the Central Library for the Upper Hudson Library System (UHLS). UHLS provides a centralized patron database for all patron records management. The current ILS system is Sirsi/Dynix Horizon 7.4.2.

The APL network is a Windows operating system environment using Windows Server 2003 and 2008, and XP Professional clients. During the next three years we will probably migrate to at least one newer Windows operating system for both computers and servers.

Library staff and public PCs range in age from one to five years old. Computers are optimally upgraded or replaced on a four-year rotational schedule. Most staff and public computers currently use Internet Explorer 8 or later and Microsoft Office 2007. The substantial increase in the number of computers in our system will make planned budgeting for software and operating system upgrades critical.

Many of the Main Library's network switches have effectively reached their end-of-life cycle. As we move into a Citrix networked environment across sites, replacing this equipment will be essential. Much of the Main Library's network wiring no longer meets current standards for data transmission and over the next several years we will need to look at replacing existing wiring, particularly in our public computing areas.

## **Successful Technology Projects**

Over the past several years APL has upgraded network bandwidth at all sites from 1.5 Megabyte T1 lines to 10 Megabyte fiber optic lines between all sites, replaced approximately 75% of public access computers and 35% staff computers, started transitioning to a Citrix-based virtual/thin client computing model for public and staff computing, implemented a redundancy system for backing up staff user profiles and data, and upgraded operating systems on network servers. We have also purchased new servers and network switches for all our BIP project sites (5 of our 7 sites).

All of our sites have free public wireless access and most also have a secured staff wireless network.

The library's website continues to be upgraded as necessary. Most recently, APL has started implementation of an online software system for reserving meeting rooms and for event registration as well as a detailed calendar of events. When fully implemented, library customers will be able to check our web site for room availability and reservation purposes as well as sign up for library programs and events.

## Technology Goals for 2010-2013

1. Provide Adequate Bandwidth  
Evaluate network bandwidth needs and upgrade data services at all sites with flexible, expandable systems that can handle increased bandwidth needs over time.
2. Upgrade Network Infrastructure, Computers and Peripherals at Main Library and North Albany Branch. Replace outdated networking equipment and servers at Main Library and North Albany Branch.
3. Upgrade Wireless Access  
Explore different models for managing wireless access systems to include more robust public access as well as secured staff access and bandwidth priority shaping, particularly at locations where network bandwidth is shared between wireless and wired networks. Plan for adequate bandwidth to meet current needs with the flexibility to expand bandwidth as needed.
4. Replace Telephone Systems at Main Library and North Albany Branch  
Plan for replacing telephone systems at the Main Library and the North Albany Branch to integrate all sites with an effective, centrally managed system that will meet our modern communications needs and interface with our voice conferencing system.
5. Upgrade Applications Software and Services
  - a. Plan and budget for implementing applications upgrades for public and staff computers (i.e., Microsoft Office, etc.). Upgrade and/or replace existing security/protection software systems as needed. For maximum efficiency of technology staffing use, continue to move into a Citrix-based virtual/thin client computing model wherever possible/feasible.
  - b. Develop a plan for effective use of laptop computers at each site for computer training and/or possible in-library use.
6. Upgrade Technology Maintenance and Support Software and Tools  
Evaluate technology support, maintenance and upgrade software and tools in light of substantial expansion in number of computers supported in new and renovated and new facilities. Focus on centralized support software and tools.
7. Provide Adequate Technology Staffing  
As technology services expand, provide adequate technology staffing to

meet needs.

8. Provide Staff Technology Training

- a. All Automation Services staff will participate in continuing education activities on an ongoing basis to develop or enhance technology skills and abilities through library system training, regional training workshops and programs, locally based computer training services and online electronic training resources in information technology.
- b. Other library staff will participate in technology training appropriate to the needs of their departments, as determined by Library Administration and department managers.

9. Provide Digital Library Services

Continue to offer current and flexible information and services via the library's web site, including access to online databases, current information about library programs, events, meeting room availability and library card holders' online account access.

10. Continue Planning for Technology

- a. Meet at least quarterly with Library Administration and department managers to assess technology needs and planning.
- b. Seek professional consultation services where necessary and appropriate for technology projects.

**Budget for Technology Plan Implementation**

(Estimated costs over three years)

| <b>Goals</b>  | <b>Cost Estimates</b> |
|---|-----------------------|
| Provide Adequate Bandwidth                                    | \$160,000             |
| Upgrade Network Infrastructure                                | \$10,000              |
| Upgrade Wireless Access                                       | \$15,000              |
| Replace Main and North Albany Telephone Systems               | \$60,000              |
| Upgrade Applications Software and Services                    | \$70,000              |
| Upgrade Technology Maintenance and Support Software and Tools | \$60,000              |
| Provide Adequate Technology Staffing                          | TBD                   |
| Provide Staff Technology Training                             | \$25,000              |
| Provide Digital Library Services                              | \$210,000             |
| Continue Planning for Technology                              | \$25,000              |

TBD – to be determined

## **Evaluating and Updating the Technology Plan**

Evaluating and updating the technology plan will be ongoing. This assessment will occur in two ways:

1. The Automation Services Department will provide Library Administration with regular progress reports about the implementation of this plan through the use of departmental reports and meetings.
2. The Technology Plan will be reviewed annually by Library Administration and Automation Services with input from department managers.

*Approved by APL Board of Trustees April 13, 2010*