

# Technology

## Overview

Technology is an institutional asset, as important to the delivery of patron services as the library's building. Technology is a tool, not a goal. It serves as infrastructure. It is integrated at all levels of the library organization and is a key asset delivering on the library's promise to serve as community hub, information access point, and cultural center.

Technology decisions should be based on sound research and thoughtful planning. Technology requires investment in qualified staff to support the infrastructure. Technologies and systems implemented in libraries should be designed, selected or implemented to serve the needs of patrons and staff in constructive, effective, and innovative ways. Technology integrates with and supports every other category / Standard section featured in this document: from collections, facilities and finance—to planning, resource sharing and services.

It is important to think of investing in technologies in the same ways a library invests in its physical structures, its staff and its collections. A library that fails to sustain a dependable technology infrastructure or does not adapt itself with evolving technologies will find itself ill-equipped to effectively serve the community or to fulfill the standards identified in this document.

## Technology Standards Checklist

- Library has a technology plan looking forward two years (or three years if participating in E-Rate), and reviews that plan annually. At minimum, components of that plan should address technologies to integrate with and support library operations, services and programs, collections, staff, and facilities.
- Library utilizes an Integrated Library System (ILS), automated catalog, content management system or similar electronic resource system to support the management and development of the library's collection and/or to provide access for the public to search the library's collection.
- Library provides, sustains and refreshes public-use technologies as detailed in its technology plan as well as its annual budget. This refresh may include, but is not limited to: Internet access stations, photocopiers, audio-visual/media technologies, gaming spaces, electronic classrooms, computer labs, information/learning/knowledge commons spaces, etc.
- Library provides, supports and refreshes technology tools and resources necessary for library staff to conduct their work.
- Library provides, sustains and refreshes its technology infrastructure in support of the services and programming efforts designed to meet present-day and evolving needs of its community.
- Library implements the highest and most robust networking available and offers quality wired and wireless connectivity, for use by patrons and staff. Library adopts present-day industry standards for physical networking and wireless networking in conjunction with remodeling or new construction plans. Library assesses network infrastructure annually or as part of its technology planning process.
- Library has developed and enforces technology policies in support of its governance policies, its operations and services, its human resources practices, etc. This may include, but is not limited to: public use, safety and security, privacy and confidentiality, resource licensing and delivery, remote access, Internet filtering, virus protection, ADA compliance and others.
- Library provides technology tools and resources in support of professional development and/or continuing education of library staff.
- Library has a web page or site that is controlled by the library and can be updated and maintained at any time by library staff. The page or site must not be controlled by a non-library entity, outside agency/department or other non-library organization. Off-site

hosting of a library's web site is acceptable and may be desirable in some situations. The web page/site is a crucial tool for use in supporting nearly every aspect of a library's operations, services and programs, collections, staff, marketing and advocacy efforts, governance, resource sharing, and more.

- Library provides and sustains a technology infrastructure to support and integrate with statewide, regional and other resource sharing services, initiatives, consortia and related.
- If the Library maintains servers, the management of such systems involves standard and best practices. Best practices should include consideration of redundancy, load balancing, virtualization and related server management technologies.
- Library utilizes project management approaches to technology selection, implementation and management, including: identifying needs, defining scope, securing adequate financial and personnel resources, research, testing, training, evaluation, etc.
- Library has in place a disaster-recovery plan associated with its technology resources and infrastructure, including such functions as data archiving, recovery testing, and restoration of assets and services.
- Library assures that good backups of vital data are maintained. Backups should be performed using best practices guidelines for frequency, based on the amount and type of data being protected. Backup processes should include backup to removable media or to a secure 'cloud' resource, and should include an adequate off-site rotation to ensure data loss is minimized. Backups and backup media should be routinely tested to ensure proper function and recovery/restoration.
- Library employs best practices at the PC, server and network levels to ensure security of systems, methods of data storage, transmission and retrieval. Library implements security practices not as a single, one-time effort, but instead utilizes an ongoing and adaptive process with overlapping layers (such as a combination of firewalls, access control lists, intrusion prevention, regular system security updates, and commercial anti-virus/anti-malware software packages).
- Library ensures that networking and other vital equipment is monitored for disruptions caused by circuit or equipment malfunction, intrusion or other causes. Likewise, data facilities housing vital equipment should be monitored for environmental concerns (such as power failure, cooling failure, the presence of water, etc.). Such monitoring should provide alerts to appropriate staff via email, phone, text messaging, etc.
- If the Library chooses to provide online payment processing for the convenience of its patrons (e-commerce or card swipes at self-checkout, for example), the Library must maintain a secured network environment that complies with current Payment Card

**Industry (PCI) standards. In terms of best practice, the Library may choose to retain an independent consultant to assist with the analysis of the network and PCI compliance needs.**

- Library employs technology solutions that address access, delivery, download, licensing, digital rights management (DRM) and related factors associated with electronic media (e-media) and emerging e-publishing formats. Such technologies may include authentication solutions, provision of e-readers and related devices, thorough evaluation of delivery systems and more.**
- If not already adopted, Library investigates the efficiencies and other possible benefits of converting its collections to Radio Frequency Identification (RFID) systems to augment the functionality many libraries employ with barcodes. In some environments, RFID offers potential to improve patron experiences, to create efficient and ergonomic workflows for circulation of materials, and more. RFID also requires a retro-conversion process, with financial and labor impacts.**
- Library routinely monitors, investigates and adopts strategies for meeting emergent and future needs of its patrons using mobile technologies (cell phones, mobile Internet appliances and devices, and related).**
- Library tracks emerging technologies with an eye for how those mesh with the Library's overall strategic plans and goals.**