# Buffalo & Erie County Public Library Technology Plan 2017-2021

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# Buffalo & Erie County Public Library
# Technology Plan 2017-2021
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# Buffalo & Erie County Public Library
# Technology Plan 2017-2021

## Introduction and Background

The Buffalo & Erie County Public Library (B&ECPL) Technology Plan 2017-2021 documents the strategies necessary for deploying relevant technology supporting the Library's *Mission* and *Vision* while ensuring superior services for the residents of Buffalo and Erie County.

In 2016, the B&ECPL conducted an exhaustive needs assessment process over a several month period to provide comprehensive input and data analysis regarding library services, programs and technology.  This included in-house, online and in-person surveys as well as staff, trustee and community input sessions.  As a result, this Technology Plan was developed targeting program and service initiatives to meet technology demands and ever-changing community needs.

The Technology Plan 2017-2021 aligns products, services and expenditures that are strongly integrated with, and supportive of, the B&ECPL Five-Year Plan of Service 2017-2021 approved by the New York State Division of Library Development (DLD).  In addition it supports the Free Direct Access Plan for the Period 2017-2021 in association with the B&ECPL System Five-Year Plan of Service
[http://www.buffalolib.org/sites/default/files/pdf/policies/Free-Direct-Access-Plan-Amended-12-15-16.pdf](http://www.buffalolib.org/sites/default/files/pdf/policies/Free-Direct-Access-Plan-Amended-12-15-16.pdf)

The B&ECPL System supports technology needs and initiatives for all service outlets.  These include the Central Library, eight (8) Buffalo city branch libraries, a Bookmobile and the following twenty-two (22) contracting member libraries:

- Alden-Ewell Free Library
- Amherst Public Library
- Angola Public Library
- Aurora Town Public Library
- Boston Free Library
- Cheektowaga Public Library
- City of Tonawanda Public Library
- Clarence Public Library
- Eden Library
- Elma Library
- Grand Island Memorial Library

- Hamburg Public Library
- Hulbert Library of the Town of Concord
- Lackawanna Public Library
- Lancaster Public Library
- Marilla Free Library
- Newstead Public Library
- Orchard Park Public Library
- Town of Collins Public Library
- Town of North Collins Public Library
- Town of Tonawanda Public Library
- West Seneca Public Library

## Mission and Vision Statements

### Mission
*Connecting our diverse community with library resources that enrich, enlighten and entertain.*

### Vision
*The Vision of the Buffalo & Erie County Public Library is to be deeply rooted in the community: promoting partnerships, fostering the development of a literate and informed citizenry through free and equal access to cultural, intellectual, recreational and informational resources, planning for the future, and making the most effective use of taxpayer funding.*

To achieve the *Mission* and support the *Vision*, the B&ECPL must maintain relevant technologies. This Technology Plan 2017-2021 outlines initiatives and implementation strategies. It is viewed as a working document that is designed to be flexible enough to ensure that the B&ECPL is positioned to embrace evolving technological advances as well as address any changing priorities.

## Technology Plan 2017-2021 Framework

The Technology Plan 2017-2021 is designed to provide a framework and a migration path to ensure state-of-the-art technology services supporting public demand and staff needs. The elements of the Plan include:
- Technology-related goals;
- Current general assessment of technical infrastructure, hardware, software and support;
- Network security strategy;
- Technology support staff;

- Technology-related projects;
- Professional development strategy;
- Ongoing evaluation process;
- Budget resources.


## Technology-Related Goals

The Goals in this Technology Plan are integrated with, and supportive of, the B&ECPL Five Year Plan of Service 2017-2021:
- Maintain and enhance technology resources that support service priorities;
- Monitor and evaluate technology resources and initiatives;
- Utilize technology to enhance customer service and outreach;
- Maximize staff efficiency;
- Train and deploy staff to provide quality customer service;
- Expend resources in a fiscally responsible manner and support grant/fundraising initiatives.

To achieve these goals, the B&ECPL System must maintain the Library's significant infrastructure as well as ensure uninterrupted service, support Library operations and advance initiatives.  Hardware and software must be updated on a regular basis.  Products and services must be evaluated to ensure relevance.  Emerging trends must be monitored and new technology incorporated as needed.


## Current General Assessment

The Buffalo & Erie County Public Library has a significant technical infrastructure to support both public access and staff computing at all library locations.

The B&ECPL's Wide Area Network (WAN) consists of thirty-six (36) point-to-point fiber optic circuits [one to each of the 36 branch and contract member libraries] with one (1) Ethernet handoff at each end.  As of December 2016, the circuits are provided by Time Warner and the router used for Internet access is provided by Fibertech.  A firewall is also in place.

Main servers are housed in a secure, climate controlled data center located at the Central Library.  Other libraries have a server at each location that acts as part of a Microsoft Windows distributed file system, which serves files related to public mandatory roaming profiles.  The B&ECPL network is complex.  It is monitored and maintained by trained, qualified staff members who provide service almost 24/7.  Productivity tools have been used to develop methodologies which remotely support

and maintain hardware and software inventory.  Open source and in-house-developed platforms and tools are being implemented on a regular basis.

The B&ECPL utilizes the SirsiDynix Symphony platform as its Integrated Library System (ILS).  Both staff workstations and a web-based public Catalog provide access to information in the bibliographic and patron databases.  The B&ECPL contracts with EnvisionWare for Radio-Frequency Identification (RFID) services, PC Reservation public computer management and LPT:One print cost management.  The B&ECPL System also supports one (1) automated materials handling system (AMH) purchased from Bibliotheca.

The B&ECPL provides and maintains a Drupal-based public website and Intranet.

All libraries offer free public WiFi over a secure network that encrypts information so that it is not easily accessible to others and allows a one-time easy login with auto-connection upon future use.

The B&ECPL System maintains approximately 1,000 public and 500 staff computers, the vast majority being desktops.  Both staff and public computers are equipped with appropriate software, Internet access, Microsoft Office products and virus protection.  All are compliant with the Children's Internet Protection Act (CIPA).  In addition to desktop computing, the B&ECPL supports public laptops and a variety of handheld devices.  The Launch Pad MakerSpace housed at the Central Library offers 3-D Printers, dozens of hands-on technologies, and a Recording Studio.  Three mobile *Cybertrains* are used for technology training.  A new bookmobile was put into service in 2016, providing traditional library services as well as a WiFi hotspot and laptops for public use and technology training.

The B&ECPL System provides telephone, e-mail and live chat reference services as well as supports several social media platforms.  Databases, eBooks and other downloads supplement educational and recreational services.  In addition, the B&ECPL System supports grant-related projects, digitization initiatives, construction/renovation projects and departmental operations that require technology or technological development.

An overall assessment indicates that hardware, software and services must be monitored, updated and/or replaced to meet public and staff needs.  Efforts must be made to stabilize costs, maximize staff productivity and respond to administrative and fiduciary requirements.

## Network Security Strategy

Security of the network is critical to the B&ECPL.  Library resources must be protected and the privacy of user information must be maintained.  This Technology Plan 2017-2021 includes strategies to ensure effective System-wide security and compliance with the Children's Internet Protection Act (CIPA).  The B&ECPL adheres to the *Information Technology Security Policy Procedures* (Board-approved September 18, 2014) and *Personnel Policies and Procedures Manual* [Computers, Communications, & Related Technology] (effective January 1, 2015).

## Technology Support Staff

The B&ECPL Information Technology (IT) Department, the Technical Services/Technology Support Department as well as the Central Library TechKnowLab and Launch Pad staff are vital to B&ECPL technology services.  These areas are comprised of a dedicated team of professionals who maintain existing technologies as well as develop, configure and deploy equipment and services supporting organizational needs.

The B&ECPL Information Technology (IT) Department provides 24/7 support for all aspects of System technology including the network infrastructure, the hardware and the software at all library locations.  The department is managed by a full-time Information Technology Administrator.  In addition to B&ECPL staff, 2 full-time outsourced Computer Technicians provide break-fix services at all libraries.  An *Information Technology Department Organizational Chart* is provided in Appendix A.

To supplement staff expertise, as of December 2016, *VITEC Solutions* is under contract for consultation or specialized project assistance as part of the "out-sourced services" contract.  In addition, professional Technology Support staff and public service staff have varying degrees of dedicated technology training and support responsibilities.

Adequate staff and project commitment will be required to maintain and support the critical network infrastructure as well as hardware, software and programming needs.  The Library Director and Administrative Team remain supportive of the staffing needs in these areas.  Barring any unforeseen change in fiscal circumstances, efforts should be made to sustain the numbers of dedicated IT and technology support staff.  Staffing levels should be monitored to ensure that technology support meets needs and ever-changing demands.

## Technology-Related Projects

Following is a list of categorized projects supporting the Technology-Related Goals. Appendix B includes summaries, assessments and specific go-forward strategies for each project.

1. Communication
2. Computers and Printers
3. Databases
4. Digital Downloads and Streaming Media
5. Digitization
6. eBranch
7. Integrated Library System (ILS)
8. Interlibrary Loan (ILL)
9. Intranet
10. Library Construction/Renovation
11. MakerSpace
12. Mobile Technologies
13. Network Support
14. Programming and Outreach
15. Project Support (Administrative and Departmental)
16. Radio-Frequency Identification (RFID)
17. Technology Training (Public and Staff)
18. Websites

## Professional Development Strategy

Public libraries play a vital role in bridging the digital divide, the gap between "haves" and "have nots" in the digital age. Although the availability of public computers and free WiFi are fundamental to these efforts, a technology literate and trained staff is a necessity as well. The B&ECPL must remain committed to providing sustained and innovative professional development and training programs to ensure staff members are able to address the technology needs of Library users.

Since 1997, staff training has been integral to the B&ECPL's successful deployment of technology and has been a very important element in all Technology Plans. As noted in each Project category of this current Plan, staff expertise and/or training will be necessary to support the initiatives. As part of the B&ECPL's 2016 strategic planning process, surveys and forums indicated a staff need for more technology training, in particular dealing with patron questions regarding download procedures and the use of e-Readers and/or other handheld devices.

Professional development opportunities will continue to be coordinated throughout the System by both the Human Resources Department and Technology Support staff. Traditional webinars, videos and training classes may not be adequate to meet all needs. New and innovative methodologies should be explored to enhance staff training opportunities, as well as maximize staff learning, participation and productivity.

In addition to Library-sponsored training, when appropriate and feasible, the B&ECPL should fund participation in workshops, webinars and conferences conducted by other professional organizations including:

- Annual Integrated Library System User Conference (e.g. SirsiDynix COSUGI Conference)
- Regional Integrated Library System User Meetings
- Specialized Conferences such as Computer in Libraries
- National Library Conferences such as ALA and PLA
- Regional or Local Conferences and Workshops conducted by such organizations as the New York Library Association (NYLA) and the Western New York Library Resources Council (WNYLRC)

Participation will help ensure that staff members are familiar with new and emerging technologies, as well as help advance B&ECPL initiatives.


## Ongoing Evaluation Process

Technology planning is complicated by budget restrictions, new initiatives and organizational priorities. Adequate staff will be needed to support the critical network infrastructure. Programs and services will require both technology and staff expertise. The Technology Plan 2017-2021 recognizes the importance of all these factors. It has been reviewed by the Administrative Team, approved by the Library Director and presented to the B&ECPL Board of Trustees for informational purposes.

Priorities will be established and ongoing input will be solicited from a variety of sources, including the staff and the public. In order to best meet the needs of the community, feedback on technology needs will continue to be solicited from directors, managers, staff and the public. The B&ECPL will continue to track usage and satisfaction statistics related to computer use and training classes to help maximize the "user experience."

The Library Director and Administrative Team will monitor the Technology Plan 2017-2021 to ensure alignment with B&ECPL projects and priorities. The Chief Operating Officer will hold regularly scheduled meetings with the Information Technology Administrator and the Division Manager for Technical Services & Technology Support

to monitor project progress.  Monthly written reports from managers and department heads will identify key initiative progress.  The Chief Operating Officer will provide status reports to the Library Director and Administrative Team.  Accomplishments will be summarized in the "Report of the Director" which is provided to the B&ECPL Board of Trustees on a monthly basis and also made publicly available on the Library's website.

The B&ECPL Technology Plan 2017-2021 will be reviewed in conjunction with the development and subsequent approval of the annual operating and capital budgets.  Projects may be reprioritized, added or changed as a result of funding, strategic and operations requirements, changes in community needs and/or the emergence of new technologies.


## Budget Resources

The B&ECPL Library Director, Library Board and Administrative Team are committed to maintaining and enhancing network infrastructure and technology initiatives throughout the System.

The B&ECPL will continue to maximize the use of E-rate eligible expenditures to ensure affordable telecommunications and broadband access.  The Library will also actively solicit grant funds and partnering opportunities to supplement resources dedicated in the B&ECPL operating budget.

Following are currently identified revenue streams which will support initiatives included in the B&ECPL Technology Plan 2017-2021.

**Operating Budget.**  The proposed 2017 operating budget includes $1,977,889 in dedicated   technology-related funding:

| | |
|---|---:|
| Personnel | 1,418,188 |
| Telecommunications | 46,892 |
| Professional Services | 435,749 |
| Lab and Tech Equipment | 77,060 |
| Total | $1,977,889 |

**Outsourced Staffing and Equipment Replacement.**  An "outsourced services" contract provides consultation and specialized project assistance to supplement departmental staff expertise in addition to replacement parts and maintenance support.  The performance contract with *VITEC Solutions* became effective July 1, 2015 and lasts until
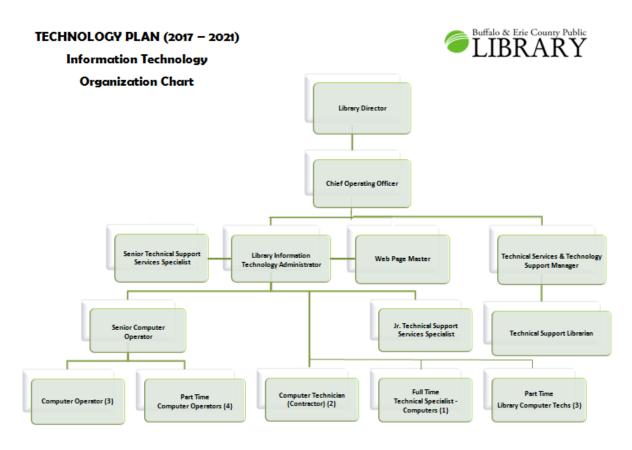
June 30, 2018.  The contract also provides options for up to 2 three-year successive extension periods.

**E-Rate Funding.**  The E-Rate (Universal Service) Program supports the B&ECPL's fiber optic wide area network and other telecommunications and Internet Access services (almost $400,000 estimated savings in the 2016-17 funding cycle) with savings including 2016-17 requested commitments totaling $4.7 million since the program's inception in 1998.  The B&ECPL annually applies for a complete range of E-rate eligible services including voice (within the limits of e-Rates phase out of voice service funding), data, network infrastructure, wireless broadband (bookmobile), and Internet Access.  The System's discount rate as of 2016-17 is 90% for recurring services (Category 1) and 85% for network infrastructure (Category 2).

**Dedicated Funds.**  The B&ECPL maintains a "Designated for Contingencies – for Equipment and Technology Replacement" committed fund balance specifically established to supplement technology initiatives identified as major and/or immediate needs that are not funded in the operating budget. This dedicated fund balance as of December 2016 has over $830,000 earmarked for equipment and technology replacement.

**Grant Opportunities**.  The B&ECPL will continue to actively solicit and partner with affiliate sources to maximize grant funding.  The Regional Bibliographic Data Base (RBDB) grant funded by New York State and administered by the Western New York Library resources Council (WNYLRC) provides funding for targeted digitization projects.  The B&ECPL is expected to apply annually until the program is eliminated or funds are unavailable.

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# TECHNOLOGY PLAN (2017 – 2021)

## Information Technology

## Organization Chart

Buffalo & Erie County Public
**LIBRARY**

```
                    ┌─────────────────┐
                    │ Library Director│
                    └────────┬────────┘
                             │
                    ┌────────┴────────┐
                    │ Chief Operating │
                    │     Officer     │
                    └────────┬────────┘
```

| Senior Technical Support Services Specialist | Library Information Technology Administrator | Web Page Master | Technical Services & Technology Support Manager |
|---|---|---|---|

| Senior Computer Operator | | Jr. Technical Support Services Specialist | Technical Support Librarian |
|---|---|---|---|

| Computer Operator (3) | Part Time Computer Operators (4) | Computer Technician (Contractor) (2) | Full Time Technical Specialist - Computers (1) | Part Time Library Computer Techs (3) |
|---|---|---|---|---|

**Appendix A**

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# Buffalo & Erie County Public Library
# Technology Plan 2017- 2021 (Appendix B)

## **<u>Technology-Related Projects</u>**

1. Communication
2. Computers and Printers
3. Databases
4. Digital Downloads and Streaming Media
5. Digitization
6. eBranch
7. Integrated Library System (ILS)
8. Interlibrary Loan (ILL)
9. Intranet
10. Library Construction/Renovation
11. MakerSpace
12. Mobile Technologies
13. Network Support
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15. Project Support (Administrative and Departmental)
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# Buffalo & Erie County Public Library
## Technology Plan 2017- 2021 (Appendix B)
## Project No. 1    Communication

**Project Summary:**

The B&ECPL is committed to actively foster and facilitate effective communication and collaboration between and among the Library System and all staff as well as increase awareness and transparency regarding library initiatives and value to constituents. To this end, the B&ECPL must provide staff with the tools needed to communicate internally as well as support public dissemination of Library information. This includes standard tools such as telephone, email and fax, as well as online communication such as websites, social media platforms, blogs, web-conferencing, and document sharing.

**Current Assessment:**

The B&ECPL employs a wide variety of technology to communicate with staff and the public.

The telephone system used at the Central Library is provided and maintained by the County of Erie and offers standard pbx services such as voice mail and call forwarding. The system cannot be unilaterally modified or upgraded by the Library. The B&ECPL System provides the lines and dial tone to all libraries via Time-Warner Cable. The contract member libraries select, and are responsible for, their own telephone system.

The primary method for internal communication is email. Email is also used for work-related communication outside of the organization, with the public and with the media. The B&ECPL currently supports Exchange Server 2013 on in-house servers at the Central Library. The Library also provides Microsoft Outlook as a workstation email client, spam and security filtering software for email user protection and email archiving services for regulatory reasons and as a backup of last resort.

Additional forms of electronic communication currently include:

- Intranet (which includes staff-initiated forums)

- Public website (which provides the opportunity for feedback, email, telephone or AskUs 24/7 communication at http://www.buffalolib.org/content/contact-us )

- Public Catalog (which provides opportunities for public feedback and purchase suggestions)

- Mobile-friendly website

- Audio and video archives

- Social Media (the Central Library manages the following accounts; some other libraries also maintain their own accounts):
    - Facebook https://www.facebook.com/
    - Twitter  https://twitter.com/buffalolibrary
    - Pinterest  https://www.pinterest.com/buffalolibrary/
    - Instagram https://www.instagram.com/buffalolibrary/
    - YouTube https://www.youtube.com/user/buffalolibrary
    - YouTube (TeckKnowLab) https://www.youtube.com/user/BECPLTrainingLab
    - Flickr https://www.flickr.com/photos/buffalolibrary/
    - Tumblr (The Launch Pad) https://becpl.tumblr.com/

- Blogs
    - Genealogy and Local History https://grogenealogylocalhistory.wordpress.com/
    - Rare Book Room https://grorarebookroom.wordpress.com/

- Web Conferencing – Big Blue Button

- Fundraising and Communication – Raiser's Edge, Online Store (Shopify), Evanced

- Public Fax Machines – equipment is currently available at the following libraries: Central, Dudley Branch, Niagara Branch, Riverside Branch, Kenmore, Kenilworth and Newstead.


**Goal Strategies:**

Provide and maintain state-of-the art email and archiving system.

Ensure equipment and software can support Library communication operations and initiatives.

Evaluate the use and value of alternative electronic and online communication tools.

Implement and promote new and emerging communication alternatives, when appropriate and feasible.

Investigate alternative online fax service options for use with public computers.

Investigate alternatives to upgrade e-Branch to state-of-the-art call center.

Explore VoIP telephony services and Computer Telephony Integration (CTI) that allows computer systems to interact with telephones and other forms of communication.

Replace the current Erie County supported telephone system if appropriate and feasible.

Maintain active presence on social network sites.

Establish and adopt a social media policy.

Monitor new and emerging social media platforms; implement when appropriate.

Research and establish System-standard document sharing platform.

Ensure appropriate procurement practices and procedures when acquiring new equipment or services.

Foster staff expertise to support electronic and online communication.

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# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 2   Computers and Printers – Public and Staff

**Project Summary:**

Libraries must ensure that knowledge and technology are available to everyone.  To best serve the needs of public and staff, quality computing resources are essential. Computers, printers, peripherals and software must be up-to-date.  Libraries must support public needs that are educational and recreational.  Staff must have quality resources to effectively and efficiently perform their jobs.  In addition to equipment and software, high-speed Internet with adequate bandwidth service should be available. Computers must be adequately covered with anti-virus protection, be accessible and support all legal requirements including the Children's Internet Protection Act (CIPA) regulations.  Printers and scanners should be high quality and high-capacity where needed.

**Current Summary:**

The B&ECPL is committed to providing quality computing services for the public and staff.  Approximately 900 desktops and 160 laptop computers are currently available for public use. 300 desktops and 15 laptops are available for staff.  Most computers were added or replaced between 2012 and 2014.  The vast majority of staff computers are single-use, dedicated to individual employees.  The option for black-and-white or color printing is available from all public workstations.  Staff computers have varying printing options.

The vast majority of computers are Windows PCs with a limited number of Apple products being used for specialized operations.  All computers have virus protection and software updates are performed regularly.  A process is underway to upgrade public computers running the Windows 7 operating system to the Windows 10 Anniversary edition.  All computers provide access to the Microsoft Office suite of products.  The process of upgrading from Microsoft Office 2007 to Office 2016 is also underway with anticipated completion early in 2017.

With the upgrade to Windows 10 Anniversary edition, all computers will have the option of using the Microsoft Ease of Access magnification and screen reader.  The Central Library also supports an Assistive Technology Room that includes a PC workstation with 23 inch position-adjustable monitor supporting Zoomtext technology.

A SARA, <u>S</u>tand <u>A</u>lone <u>R</u>eading <u>A</u>ppliance that scans and converts text to speech is also available for public use.

All computers provide access to the Internet using Google Chrome and Internet Explorer.  Public computer use is controlled with software provided by EnvisionWare, Inc. which allows for profile switching and ensures CIPA compliance.  Guest passes are available for users over the age of 17 and all guest access is filtered.  Adult users with library cards may elect non-filtered access.  Dedicated links are provided on the desktops to access and use the U.S. Government Printing Office website, the Buffalo Public Schools Desktop, Google Earth, Windows Media Player and more.

In addition to adhering to all CIPA compliance requirements, the Library's "Internet Safety and Acceptable Use" Policy requires that children under the age of 17 have parental/guardian permission to access the Internet.  A dedicated public children's profile allows access to the Internet using a library card with authorized parent/legal guardian permission.  The children's profile also includes access to educational games and sites such as Kids National Geographic, Cool Math, Nickelodeon Kids Games, PBS Kids and Sesame Street from the desktop.

In addition, certain staff PCs have specialized software or programs needed to support job-specific needs or requirements.


**Goal Strategies:**

Ensure all Library computers support legal and Library Policy Internet-access requirements, including CIPA compliance.

Maintain up-to-date software and virus protection.

Provide high-speed Internet web access with adequate bandwidth.

Investigate web browser options and alternatives including, but not limited to Microsoft Edge.

Review children's sites to ensure relevance; add or replace as needed.

Ensure accessibility on all computers.

Establish a hardware replacement schedule.

Ensure adequate dedicated budget reserves to replace hardware and update software as needed.

Ensure appropriate procurement procedures for new or replacement equipment.

Ensure staff training to support computer use.

Provide staff access to appropriate technology and job-related sites or programs.

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# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 3    Databases

**Project Summary:**

Subscription databases are acquired and maintained to supplement information available in print and other free online resources.  Access is provided at in-library desktop computers as well as remotely through the Library's website.  Remote access requires B&ECPL cardholder authentication.  A web page is maintained which provides title and category access to all current online databases.  The databases are managed using a platform developed by in-house Information Technology staff.  An outside service provider is not used.

**Current Assessment:**

The B&ECPL System currently provides access to a total of 59 databases.  Fifty-eight databases are available for use at the Central Library.  Fifty-seven databases are available for use at the Audubon, Collins, Kenmore and Lancaster Libraries.  Fifty-four databases are available for use at all B&EPL libraries.  One database is available for use at the Erie County Correctional Facility and Erie County Holding Center.  The majority of databases are purchased with Library funds and 54 are available in a remote capacity.  The Library's databases are supplemented by participation in the NOVELny program that provides residents across New York State with online access to the full text of hundreds of journals, newspapers and other reference sources.

**Goal Strategies:**

Ensure a collection management methodology to acquire new databases and de-access or replace obsolete or underutilized products.

Maintain an active Database Committee (and subcommittees) to continually evaluate and strengthen electronic collections as well as maximize database promotion and marketing.

Ensure appropriate procurement for renewals and purchase of new databases (including developing, issuing and awarding RFPs when appropriate).

Integrate current databases into the online catalog to maximize discovery.

Maintain active participation in the NOVELny program and any future initiatives that provide the opportunity for collaborative use or purchase.

Evaluate access platform and other electronic resource management options to ensure relevancy and maximize search capabilities.

Provide relevant use indicators by mining and maintaining usage statistics.

Ensure technical expertise to maintain, monitor and/or trouble-shoot database functionality.

Provide adequate annual budget allocation to support the collection.

Provide public and staff training to maximize database use.

# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 4    Digital Downloads and Streaming Media

**Project Summary:**

Audio, visual and video recordings encoded in digital form are made available for download via the Internet.  E-Books and e-Audiobooks provide an electronic version of a traditional print book that can be read or listened to using a personal computer or mobile device.  Video may be available in digital download format or provided as streaming media.  Music is also made available as a digital transfer into a device capable of playing it such as a computer or a smartphone.  These electronic resources provide alternate formats for library cardholders and are available remotely via the Internet.  Use and download may be subject to publisher/owner copyright, utilization restrictions and check-out limitations stipulated by a commercial vendor.

**Current Assessment:**

The B&ECPL currently provides access to e-Books, e-Audiobooks, video and music downloads.  The e-Book collection totals approximately 40,000 with OverDrive the primary provider.  Other e-Books are made available for check-out through Ebook Library (EBL) and the free Project Gutenberg platform. Almost 8,000 e-Audiobooks are also available from OverDrive.  A small number of videos are available from OverDrive and mobile web users are provided Video access from the Moving Image Archive website.  Over 11 million songs are available from Freegal.  Cardholders are limited to 5 songs per week, but the items do not get returned and all songs are available on an unlimited simultaneous basis.

**Goal Strategies:**

Maintain and enhance digital and streaming services.

Monitor developments in standards and use of digital and streaming formats.

Explore and evaluate alternative access points and platforms to deliver electronic resources to users.
Investigate supplements and alternatives to current services and providers.

Integrate additional relevant electronic resources into the Library collection when appropriate and feasible.

Ensure staff expertise to maintain, monitor and/or trouble-shoot interface or technical issues.

Record relevant use indicators and circulation statistics.

Provide adequate annual budget appropriation to support the collections.

Provide public and staff training to maximize access and use.

Develop, issue and award RFP for appropriate services.

Buffalo & Erie County Public Library

Technology Plan 2017- 2021 (Appendix B)

## Project No. 5    Digitization

**Project Summary:**

Digitization is the process by which an electronic representation of a tangible item is
created.  Transferring materials from tangible to digital format eliminates access
restrictions such as distance, limited hours of availability, physical condition, and
security.  The B&ECPL is home to a wealth of varied and unique collections.  These
include documents, manuscripts, letters, maps, photographs, postcards, posters, sheet
music, and items in other formats not limited to print.  Many of these collections are
relatively unknown and virtually inaccessible.  Digital projects, mounted as
comprehensive collections or thematic exhibits, can be made available to a wider
audience than was previously possible.  The goal of the B&ECPL's Digitization
Committee is to create, maintain, and provide access to materials and resources in an
electronic format that supports the intellectual, cultural, educational, or recreational
needs and expectations of our diverse community.

**Current Assessment:**

The Digital Collections of the B&ECPL are currently comprised of 16 principal
collections, which include approximately 4,500 individual digitized items (photographs,
newspapers, books, documents, posters, and oral history interviews).  Access to the
principal collections is provided through a main B&ECPL Digital Collections webpage
http://www.buffalolib.org/content/digital-collections  that is developed and
maintained by Information Technology, Technical Services, and Special Collections
staff.  The principal collections are also accessible through links on multiple internal and
external webpages.

The B&ECPL has also developed, and currently hosts, two Omeka-based websites that
contain 4 individual digital collections/items.

In addition, access to specialized B&ECPL collections is available through the
"Community History Projects," "New York State History Newspapers" and
"HeinOnline" digital sites.  Although these external websites are maintained by outside
partner organizations, the original content and metadata for the Library's digital items
were provided by the B&ECPL.

**Goal Strategies:**

Provide on-site content management system and guidance for outsourced digitization and off-site content management to member libraries.

Review and update the B&ECPL Digitization Plan, as needed, to accommodate changes in technology standards and practices, collection development activities and interests, and system-wide policies and procedures.

Maintain an active Digitization Committee to ensure digitization projects are appropriately selected and implemented according to B&ECPL's minimum standards.

Prioritize Special Collections digitization projects.

Enhance digital discoverability; Increase awareness and availability of Special Collections to a wide virtual audience.

Maintain and enhance all Digital Collections websites.

Ensure metadata for Digital Collections is accurate, searchable, and visible to major internet search engines.

Provide access to individual digital collections/items through the online catalog to maximize discovery.

Actively pursue grant and partnering opportunities to expand digital presence.

Ensure appropriate professional and information technology staff is available to support digital initiatives.

Provide adequate annual budget allocation to support digital initiatives.

Continue to evaluate digitization equipment and content management software options to ensure long-term relevance and reliability.

# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

### **Project No. 6    eBranch**

**Project Summary:**

The B&ECPL's eBranch Department supplements in-library and remote reference and informational resources.  Telephone, email and online chat services are available to patrons, staff and individuals worldwide.

**Current Assessment:**

The B&ECPL currently provides telephone inquiry service Monday through Saturday from 9 A.M. until 5 P.M. (non-designated holidays) from a centralized department housed at the Central Library.  A dedicated call-in hotline, equipped with voice mail capability, is available to staff from all branches and contract member libraries.  Email inquiries are reviewed by eBranch staff and referred to subject specialists when appropriate.  The majority of questions are answered by eBranch staff the same day they are received.  Maximum targeted wait time for response is 3 business days.

After-hours, weekend and holiday access to information services from professional librarians is made available through AskUs 24/7, a chat reference service which is staffed by librarians from the B&ECPL System and from across the country.

The B&ECPL website's "Contact Us" page provides convenient links to both email and AskUs 24/7 services.

The telephone system used at the Central Library is provided by the County of Erie and cannot be unilaterally modified or upgraded by the Library.  The eBranch Department currently uses a 3-line landline telephone with a fourth line dedicated for use as the staff hotline.  The telephone system is not integrated with PC workstations and therefore limits efficiency and accurate record keeping.

The eBranch Department is using LibStats, a free software program, to track telephone activity and provide departmental statistics used for system and state level reporting. Efforts continue to ensure that LibStats activity is capturing the appropriate data sets and that data-entry is reliable enough to eliminate the need to maintain paper log sheets.

**Goal Strategies:**

Provide quality remote reference and informational services.

Investigate alternatives to supplement current "Contact Us" services.

Evaluate alternative real-time communication tools (e.g. text messaging).

Support and maintain collaborative AskUs reference service.

Maximize the use and functionality of Libstats or other recording/work ticket products.

Investigate alternatives to the current Erie County supported telephone system; implement replacement if appropriate and feasible.

Ensure appropriate technologies needed to support operations.

Ensure staff members are appropriately trained to support services.

# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 7    Integrated Library System (ILS)

**Project Summary:**

An Integrated Library System (ILS) assists the library in monitoring items, check-outs and borrower information.  It typically supports relational bibliographic and borrower databases with software to facilitate separate interfaces for public and staff.  Most systems separate functions into programs called modules which provide a variety of integrated computerized functions.  Examples of modules include acquisitions (ordering, receiving and invoicing materials), cataloging (classifying materials), circulation (materials check-out), electronic resource management (uniting digital content), serials control (ordering and tracking subscriptions) and the online public access catalog (OPAC).

The Information Technology and Technology Support staff members at the Central Library have the authority and responsibility to administer the Integrated Library System for the B&ECPL System.

**Current Summary:**

The B&ECPL currently contracts with SirsiDynix for ILS products and services.  As a result of a recent Request for Proposal (RFP) process, the B&ECPL is under contract with this industry-leading vendor through March 31, 2021 with options for automatic five-year term renewals.  The B&ECPL must ensure a stable, responsive ILS that meets the needs of the public and staff.

The SirsiDynix Symphony ILS software, WorkFlows version 3.4.1.5 runs on local production and test servers administered by the Library's Information Technology staff.  The Circulation, Acquisitions, Serials, and Cataloging modules provide many of the B&ECPL's mission-critical services.  A major upgrade to Symphony 3.5 is being planned with targeted completion in early 2017.

The Reports module supports ILS maintenance in addition to generating operational and analytical statistics.  An additional user-friendly reporting tool, Director's Station, which has reached end-of-life support, is in the process of being replaced by BLUEcloud Analytics, a cloud-based solution featuring a powerful drag and drop interface that does not require knowledge of query language.

Authority control vendor Marcive, Inc. supplies new and updated authority records and ensures that national standards for bibliographic headings are maintained.

An SMS text notification module under development and beta test would expand the number of patron notification options.

MobileCIRC, an app that allows libraries to perform many circulation tasks via WiFi on iOS and Android devices, was introduced late in 2015.  It has been used primarily to register new cardholders at outreach events, but can also handle checkouts/discharges, "send" lists, and weeding tasks.

The public enjoys access to Library holdings through two web-based interfaces.  The SirsiDynix e-Library catalog is a traditional library OPAC, while the VuFind open-source catalog uses a single search box and facets to aid discovery.  Both are slated to be replaced by cloud-based Enterprise, SirsiDynix's premier discovery tool software that was installed in July 2016.  Customization and testing of Enterprise is currently in progress with an anticipated public beta release early in 2017.  The BookMyne catalog app is also available for both iOS and Android mobile devices.

Several products and services are being evaluated in an effort to maximize the integration potential of Enterprise.  Access to enriched content, including cover images, reviews, summaries, and author notes is supplied by Syndetic Solutions; the service recently expanded to include video and music information.  eResource Central (eRC) was installed in October 2016.  This module will give users the option to search, place holds and download digital content directly within the Enterprise interface.  Planning for the incorporation of EBSCO Discovery Service (EDS) will begin in early 2017.  EDS will provide single-click access to most of the B&ECPL's database resources from the Enterprise catalog.  A review of NoveList Select, EBSCO's reading recommendation content service is slated for 2017.

SirsiDynix's vision for its next-generation ILS will result in browser-based modules that are managed and launched through BLUEcloud Central.  Currently, BLUEcloud Cataloging, BookMyne, and eRC are the only products administered through this platform.  As they become available for use and/or reach an appropriate level of function, additional products, including BLUEcloud Circulation and BLUEcloud Acquisitions will be added.


**Goal Strategies:**

Maintain and upgrade, as necessary, the current Integrated Library System (ILS).

Monitor and evaluate vendor products that enhance ILS capabilities and features; acquire as appropriate and feasible.
Ensure relevancy of borrower and bibliographic data.

Maintain and enhance public catalog features and functionality (including My Account).

Implement cloud-based products and features such as apps; if appropriate and feasible.

Evaluate overall system and system-performance prior to automatic contract renewal on March 31, 2021.

Ensure quality reports using statistical data and analysis tools.

Ensure technical expertise to maintain, monitor and/or trouble-shoot ILS operations and policy needs.

Provide adequate annual budget allocation to support the ILS.

Ensure appropriate procurement procedures for new or replacement equipment.

Provide appropriate public and staff training to support ILS operations and use.

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Buffalo & Erie County Public Library

Technology Plan 2017- 2021 (Appendix B)

## Project No. 8    Interlibrary Loan (ILL)

**Project Summary:**

The Interlibrary Loan (ILL) service allows local residents access to library materials that are not available within the B&ECPL System.  It is a cooperative system, based upon reciprocity, whereby libraries agree to share materials.  It is typically the prerogative of the lending library to set the loan period, determine which materials can be lent, assess photocopy permissions, and define use restrictions.

**Current Assessment:**

The B&ECPL Interlibrary Loan Department (ILL) participates in a worldwide resource sharing system, cooperating chiefly with libraries located in New York State.  ILL operations are managed through OCLC WorldShare ILL which provides access to WorldCat, a global catalog of library collections.  B&ECPL materials that may be borrowed through ILL services include fiction and non-fiction books, documentary and educational videos and periodical articles that are delivered as either electronic files or photocopies.

In cooperation with the University of Buffalo and eight other libraries, the B&ECPL is also an active participant in the Empire Shared Collection program.  This collaboration provides library users access to over 31,000 serials titles, and the articles may be obtained via e-mail delivery.  Resource sharing has recently been further enhanced through participation in a pilot program which provides free intrastate courier service among its members using the Empire Library Delivery (ELD) service.

OCLC ILLiad® interfaces seamlessly with WorldShare ILL to further automate staff workflows and allow library cardholders to create an account from the Library's website.  Users gain access to WorldCat through WorldCat Discovery, and may place and track the status of their requests 24/7.  Requests are also accepted directly via telephone by calling the eBranch.

The ILL Department handles over 6,000 patron requests annually. The department also receives an average of 5,500 lending requests from other library systems annually.

The ILL operation currently uses an ImageAccess Scan2Net 16 inch flatbed scanner running OCLC's Odyssey, a free open protocol electronic document delivery software from Atlas Systems. Odyssey is integrated into OCLC's ILLiad® ILL management system. This standalone module allows sites to send and receive electronic documents to and from other Odyssey sites as well as sites using other compatible software. This has proven to work well for the Library System.

The B&ECPL must continue to monitor the anticipated merger of OCLC and ILLiad and subsequent conversion to a web-based product hosted on the WorldShare Platform. The Library must also further investigate participation in the "Early Adopter" program and ensure successful migration from the current server-based operation to the cloud product.

The scanner currently in use for document delivery has reached the end of its useful life and is unable to accept the software upgrades necessary for installation of ILLiad® 8.7, which is needed to achieve peak system functionality. Acquisition of a new WideTEK® 25-600 Wide Format Flatbed scanner or comparable unit will be a priority for the department to support the new web-based operations.

Utilizing functionality available within SirsiDynix Workflows, a pilot program is currently underway to streamline circulation procedures, eliminate the need for paper forms and allow patrons to return items borrowed via ILL to any B&ECPL library.


**Goal Strategies:**

Ensure timely access to materials.

Maximize efficient and cost-effective service delivery.

Continue to streamline ILL processes.

Enhance and complete ILL procedure integration with SirsiDynix Integrated Library System (ILS) checkout and My Account features.

Prepare for anticipated OCLC/Illiad merger and anticipated migration to a web-based product on the WorldShare platform.

Monitor SirsiDynix BLUECloud ILL product development.

Enhance understanding of ILL services through promotion and training.

Enhance resource sharing with increased usage.

Ensure appropriate technologies needed to support operations.

Ensure staff members are appropriately trained to support services.

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# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 9    Intranet

**Project Summary:**

An intranet is an online communications network belonging to an organization accessible only by the organization's employees or others with authorization.  The B&ECPL's private network consists of a series of web pages designed and maintained to provide staff with a single-source to keep informed and connected.  The Intranet home page features scrolling "Library Snap Shots" highlighting library happenings, staff-initiated forums, and a variety of informational links.  Each department/functional area has a dedicated web page to highlight features and services with links to supporting information or documentation.

**Current Assessment:**

The B&ECPL currently hosts and maintains a Drupal-based Intranet designed and made available for use in 2013.  The Library's web page master has primary responsibility for development and updates, but several designated staff members have project-specific editing privileges.  Remote access is available to authorized users authenticated by a registered library card number and PIN.

In addition to the key elements cited in the above "Project Summary," features include a staff directory, staff policies/procedures, emergency procedures information, fillable forms, automated cart-system supply ordering, important meeting/dates information and committee information.  Options for communication including "Feedback" and "AskAdmin" are also featured.  An "Hours Calendar Entry Form" allows staff to record open hours and change library hours.  That data is automatically linked to a real-time "Open Hours" feature available on the public website.

The site is monitored for usefulness and accuracy with new features developed and added regularly.  Efforts are made to keep this site user-friendly and maximize search capabilities.

By design, content included on the B&ECPL's public websites is not duplicated on the Intranet.  When necessary or appropriate, links are provided to the public information.

**Goal Strategies:**

Monitor and ensure useful and accurate up-to-date content.

Ensure ADA compliance.

Investigate electronic authentication and signature.

Ensure appropriate staff expertise to maintain website.

# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 10     Library Construction/Renovation

**Project Summary:**

The B&ECPL must help ensure that the infrastructure at all libraries can support current and future technologies.  To that end, the B&ECPL must provide technical guidance for design, development and integration of the network and communications structures in all library construction and major renovation projects.  This may include recommendation for data and electrical cable placement and advice regarding technical or space requirements for equipment.  In some instances, equipment or new service recommendations may be needed, as well as cost estimates provided to support the products or services.  In addition, all equipment moves or installations must be supported by and coordinated with the Information Technology (IT) Department staff.

**Current Assessment:**

The B&ECPL System currently includes 37 physical locations, many of which are aging structures.  The B&ECPL supports the replacement, rehabilitation and addition of library buildings and infrastructure through System-wide coordination of the State Aid for Libraries Construction Program.

Two renovation projects are currently underway at the Central Library.  A new ADA-compliant passenger elevator is under construction and an auditorium renovation/rehabilitation is also taking place.  Both projects are targeted for completion mid-2017.

A major renovation/expansion project is underway at the West Seneca Public Library with a final completion targeted at 2017-18.

B&ECPL system IT staff involvement, as needed, will be project-specific and project-dependent.

**Goal Strategies:**

Facilitate the move of existing or implementations of new telephone and data communications.

Install computers and all related peripherals to support technology requirements.

Consult with appropriate library directors/managers, architects, building contractors, data communication providers, and any other appropriate consultants or vendors.

Ensure System staff expertise to support service requirements.

Buffalo & Erie County Public Library

Technology Plan 2017- 2021 (Appendix B)

**Project No. 11    MakerSpace**

**Project Summary:**

MakerSpaces are inspirational areas where people can gather to create, invent, share, network and learn.  In libraries the space can be designated or open-area, but all are unique in exactly how they are arranged to fit the community they serve.  Although they are a fairly new phenomenon and may include resources for all ages, they are becoming a mainstream and important library service.  In addition, they can significantly support the STEM curriculum which fosters education in Science, Technology, Engineering and Mathematics in an interdisciplinary and applied approach.  The B&ECPL recognizes the importance of MakerSpace services and encourages their growth and development.

**Current Assessment:**

The Launch Pad MakerSpace opened at the Central Library in March 2015. This versatile open area, with high visibility near the main Washington Street entrance, functions as multi-use space and is supplemented by an adjacent enclosed Recording Studio.

The Launch Pad consists of a main area that encourages hands-on learning for all ages with a variety of the latest technology such as 3D printing, augmented reality books, robot building activities, basic circuitry and STEAM gaming on tablet computers.  In addition, the adjacent Recording Studio has professional equipment and software to assist with composing music, editing video footage and recording podcasts.  The Studio also features a green screen for video and photo special effects.

Due to the overwhelming popularity of the Recording Studio, it is anticipated that this function of the Launch Pad will need to be expanded.  Currently there are four 4 workstations in the space with multiple people using it at the same time.  To continue to meet patron needs, additional recording spaces are being considered.

Several city branches and contract member libraries have been inspired by the Launch Pad products and services and are beginning to create their own MakerSpace collections.

**Goal Strategies:**

Maintain and enhance MakerSpace services.

Monitor trends and any standards development in the MakerSpace movement.

Investigate supplements and alternatives to current products and services.

Integrate additional relevant resources when appropriate and feasible.

Ensure staff expertise to maintain, monitor and promote services.

Actively solicit grant funds and partnering opportunities to supplement dedicated B&ECPL technology resources.

Provide adequate annual budget allocation to support ongoing and expanded initiatives.

Provide public and staff training to maximize access and use.

Buffalo & Erie County Public Library

Technology Plan 2017- 2021 (Appendix B)

## Project No. 12    Mobile Technologies

**Project Summary:**

Mobile technology is portable technology that you can carry with you to perform a wide variety of tasks.   It is a collective term that encompasses electronic devices and the underlying infrastructure that enable communication and the remote access to data and information.  Devices may include laptops, tablets, netbooks, smart phones, etc.  These devices can be enabled to use a wide variety of telecommunications technologies including WiFi, Bluetooth, data networking services and virtual private networks.  The drive for mobility to increase productivity and enhance services can be seen in many aspects of library operations.

**Current Summary:**

The B&ECPL provides staff with the opportunity to access work-related email using the Outlook Web App (OWA) for mobile devices.  In addition, public and staff have access to a mobile version of the B&ECPL website along with vendor developed apps such as SirsiDynix BookMyne (Library Catalog and My Account information), OverDrive (e-Book downloads) and Freegal  (music downloads) to supplement website or desktop applications.

Several B&ECPL libraries provide laptop computers to supplement in-house public access computing; some libraries have laptops for staff use.  The B&ECPL TechKnowLab staff and the Launch Pad MakerSpace at the Central Library regularly make use of laptop computers to supplement training and programming initiatives.

System TechKnowLab staff also utilize a variety of handheld devices, including e-Readers, iPads, Android devices and Kindle Fires to facilitate technology training.  With increased frequency, many libraries are acquiring mobile technologies (in particular iPads) to support programming initiatives and/or technology training.

The B&ECPL Bookmobile utilizes laptop computers to manage library operations (including check-out of materials) as well as utilizes additional laptops for public use and training.

Supplementing the Library's Integrated Library System operations, staff has also begun using the SirsiDynix Mobilecirc application which allows item check-out, user registration, holds processing and item inventory functions using a handheld device.

With increased remote programming and outreach opportunities, the demand for mobile devices and services continues to expand at a rapid pace.

**Goal Strategies:**

Ensure appropriate mobile technologies to support library operations.

Ensure appropriate devices for testing.

Ensure that online content is appropriately formatted for mobile use.

Investigate alternatives as well as emerging trends to enhance mobile technologies and mobile technology applications.

Ensure adequate Library-provided broadband (in-library WiFi or mobile hotspots) to support mobile technologies.

Ensure adequate annual budget allocation to support mobile technologies.

Ensure appropriate procurement practices and procedures when acquiring new devices.

Actively solicit grant funds and partnering opportunities to supplement dedicated B&ECPL technology resources.

Ensure staff members are appropriately trained to support mobile technologies.

# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 13    Network Support

**Project Summary:**

Computer networks are important to today's business organizations because they provide faster, easier access to any message or data that can be represented and stored in digital format. Effective networks, especially wireless networks, are critical to the smooth functioning and delivery of services for today's libraries. Network services may range from managing a wide area network to configuring network equipment like routers and switches to troubleshooting network connectivity problems. They may also include PC support with a focus on upgrading and installing computer hardware and software, as well as troubleshooting issues like viruses and spyware. Network staff may also have responsibility for monitoring and maintaining Third Party products, developing solutions for library technology needs as well as supporting technology programs and services.

**Current Summary:**

The B&ECPL Information Technology Department, housed in the Central Library, provides network support operations for 37 libraries and a bookmobile. The department contains a secure climate-controlled Data Center which houses main servers, network devices and other critical infrastructure computing components that support all current B&ECPL System services. Libraries also have a server at each location that acts as part of a Microsoft Windows distributed file system, which serves files related to public mandatory roaming profiles.

The B&ECPL's wide area network (WAN) consists of thirty-six (36) point-to-point fiber optic circuits [one to each of the 36 branch and contract member libraries] with one (1) Ethernet handoff at each end. Access to and from the network is via a broadband connection at the Central Library. From the Central Library to the Internet bandwidth is 500 Mbit. Bandwidth in other libraries measures 30Mb (32 locations), 40Mb (3 locations) and 50Mb (1 library). The circuits are currently provided by Time Warner. Internet access is currently provided by Fibertech, and a Cisco hardware firewall is in place. VPN access is available for a limited number of staff members via the firewall.

The Information Technology Department is also responsible for maintaining hardware such as computers, printers and scanners at all locations. This includes replacing

equipment that has reached the end-of-life as well as break-fix operations. A Help Desk located in the IT office is staffed almost 24/7 and allows staff to report problems as soon as they are identified.

Information Technology staff provide support for Third Party products that complement/support Library operations. These include the SirsiDynix Integrated Library System, Unique Management Services, Inc. materials recovery services, EnvisionWare PC Reservation/LPT One print release/Pay Fines services, a suite of RFID products including self checkouts, Evanced, Raiser's Edge and an Online Store.

Information Technology staff regularly research new, non-traditional and alternative technologies to support changing operations, functionalities and/or grant-driven requirements.


**Goal Strategies:**

Ensure a stable, high performance network**.**

Upgrade Internet bandwidth as needed to meet staff and public needs.

Investigate web browser options and alternatives including, but not limited to Microsoft Edge.

Roll out change to wpa/wpa2 mixed mode for performance and security while maintaining support for older devices; monitor changes in industry standards for future software and/or hardware upgrade.

Replace or add wireless access points (WAP) as needed.

Implement the use of wireless access for temporary or permanent cabling requirements, on an as need basis.

Maintain all servers; upgrade hardware and operating software as necessary.

Monitor and maintain all other network hardware (including routers and switches); replace those reaching "end-of-life."

Maintain and upgrade firewall software and hardware as needed.

Maintain and upgrade VPN (Virtual Private Network) for secure access to Library's network as needed.

Maintain and upgrade Internet-threat and network security software as needed.

Investigate log analyzing hardware and software to efficiently retrieve required user history of public PCs using filtered profile.

Maintain Help Desk system software; upgrade or replace as needed.

Regularly review and update Board-approved *Information Technology Security Policy Manual*.

Provide adequate annual budget appropriation to support network equipment and operations.

Ensure appropriate procurement procedures when acquiring new equipment or services.

Develop, issue and award RFP for appropriate services.

Foster and ensure appropriate staff expertise to support all aspects of network operations.

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# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

### Project No. 14    Programming and Outreach

**Project Summary:**

Programming and outreach provide the opportunity to support literacy, learning, social development, creativity and innovation.  Libraries must continually find ways to engage the community.  As an integral by-product, these initiatives provide the opportunity to enhance library visibility, develop partnerships and highlight the value of public libraries.  In addition to traditional in-library programs, outreach activities are also effective ways to extend the reach of the library to non-users, the underserved and people with special needs.

**Current Assessment:**

The B&ECPL currently offers a wide variety of programs at all service locations.  With increased frequency, technology is being utilized to promote, present and evaluate the programs.

Most libraries have large screen televisions and projectors for use in their community rooms and many libraries are enhancing equipment to include smart screen technologies.  Some meeting spaces have sound systems with integrated assistive listening devices.

Several libraries have acquired handheld devices such as iPads for use with programming.  Central Library programming and outreach staff members regularly use laptops and iPads to facilitate real-time borrower registration as well as issue and activate library cards.

The Central Library supports an Assistive Technology Room that includes a PC workstation with 23-inch position-adjustable monitor and Zoomtext high contrast keyboard loaded with ZoomText/Reader 10 software mounted on an electric one-touch height adjustable work surface.  A SARA, Stand Alone Reading Appliance, Freedom Scientific's Topaz Magnifier Low Vision Enlarger and a Z-20 videophone with 10.6" LED screen are also available.

Bookmobile service was reintroduced by the B&ECPL in 2016 with the addition of a new Library on Wheels mobile unit.  In addition to providing a traditional collection

(books, audiobooks, DVDs, etc.), the bookmobile also offers free WiFi and laptops for public use.  The vehicle makes regular service stops in underserved areas and at nursing homes and assisted living facilities.  It is also used for Library promotion at many community events where materials are available for checkout and library cards are issued in real time.


**Goal Strategies:**

Ensure equipment and software that can support Library programming and outreach initiatives.

Provide adequate annual budget allocation to support programming and outreach technology needs.

Explore options and opportunities to acquire additional outreach vehicles.

Actively solicit grant funds and partnering opportunities to supplement dedicated B&ECPL technology resources.

Monitor technology trends for assistive devices and initiatives.

Update or enhance assistive technology when appropriate and feasible.

Investigate "home delivery" service options; implement if feasible and appropriate.

Ensure appropriate procurement procedures when acquiring new equipment or services.

Ensure staff expertise to use maintain, monitor and use associated technologies.

Ensure staff availability to support technology requirements for all library-sponsored programming conducted at the Central Library (and certain outside groups or non-library conducted programs).

# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 15   Project Support (Administrative and Departmental)

**Project Summary:**

Library systems must foster and facilitate new initiatives, administrative/departmental projects and reporting requirements that need technology support.  These specialized initiatives may be one-time or long term commitments that target benefits for the public, staff and/or the Library System.  They may be solely library-supported or they may be grant-funded or partnering initiatives.  To keep up with ever-changing demands, staff must be able to research, identify, recommend and support technology to meet emerging needs.

**Current Summary:**

Technology and technological needs are integrated in today's B&ECPL System operations.  Information Technology and Technology Support staff regularly research new, non-traditional and alternative technologies to support changing operations, functionalities and/or grant-driven requirements.  Needs may be generated by projects in almost any area or department of the Library including Administration, Human Resources, Technical Services, Development/Communications and the Business Office.

An example of recent partnering support was the development of an application now available on all B&ECPL public computers that allow Buffalo Public School (BPS) students access to their classroom BPS Desktop programs.

An example of long-term support is providing access to third-party and outside-funded Raiser's Edge software, which is used by the B&ECPL Department of Development and Communications for fundraising and advocacy initiatives.  Another third-party program supported by the B&ECPL is Evanced Solutions, an online product that provides event calendar and room booking features that are used System-wide.

An example of a project to increase reports and reporting efficiency was the development of online Intranet-accessible forms that allow staff members to record programming statistics, changes in open hours and Continuing Education/Staff Development activities.  Many of these statistics are included in monthly reports and used for state or national annual reporting requirements.

**Goal Strategies:**

Ensure staff remains aware of emerging trends and technologies.

Provide and maintain technologies to support internal and external communication.

Ensure appropriate staff to assess, make recommendations and facilitate project-specific technologies.

Ensure funding to support specialized projects, including actively seeking grant funding.

Buffalo & Erie County Public Library

Technology Plan 2017- 2021 (Appendix B)

**Project No. 16    Radio-Frequency Identification (RFID)**


**Project Summary:**

Radio-Frequency Identification (RFID) uses radio waves to read and capture information stored on a tag.  The Library uses RFID technology as a collection management and theft-detection tool.  Items are tagged, encoded and interfaced with the Library's Integrated Library System (ILS).  RFID implementation began in 2009 and all libraries were fully converted by June 2015.  The majority of the project was funded by two separate Erie County Fiscal Stability Authority (ECFSA) Grants.  New York State Construction grants supported the projects at nine contract member libraries.  Benefits to the libraries include streamlined check-out/discharge procedures, patron self check-out, materials theft detection and automated materials handling (AMH).  An Automated Materials Handling (AMH) System was also funded by the ECFSA grant.


**Current Assessment:**

All 37 B&ECPL libraries are now functioning with RFID technology.  As a result of a competitive Request for Proposal (RFP) process, the B&ECPL is currently under contract with EnvisionWare for RFID services.  The three-year contract period began November 1, 2013, with two options to renew (three years each) if agreed upon by both parties.  A three-year contract extension is now in place effective until October 31, 2019.

A total of 93 self check-out stations are available System-wide.  Due to building entrance configurations, four libraries (Alden, Eden, Boston and Marilla) do not have armed alert gates.  An Automated Materials Handling (AMH) System is available for convenient "real-time" item return 24/7 at the Main Library at Audubon, in the Amherst Public Library system.  Analysis of libraries exhibited annual self-check percentages that ranged from 36% to 91% in 2016.  The B&ECPL needs to plan for replacement of self check-out equipment when it has reached end-of-life usefulness and/or can no longer support the software.  In addition, theft-detection gates at the earliest installations have already reached end-of-life by industry standards and need to be monitored for repair or replacement as needed.

**Goal Strategies:**

Monitor and assess industry standards, product features and functionalities.

Maintain and/or replace hardware as needed.

Monitor tag responsiveness; plan for end-of-life tag upgrade/replacement.

Ensure appropriate procurement procedures and contract evaluation.

Ensure appropriate funding to support software and hardware needs.

Ensure staff members are appropriately trained to support service.

Buffalo & Erie County Public Library

Technology Plan 2017- 2021 (Appendix B)

## Project No. 17    Technology Training (Public and Staff)

**Project Summary:**

Public libraries must be committed to an informed and technology literate environment for both the public and staff.  All staff members need the skills and knowledge to assist patrons with general technology questions.  In addition, designated staff should be well versed in one-on-one as well as classroom-based instruction.  Appropriate training and training venues should be available for Library users and staff.  In addition to formal training, in-library and online resources should also be available.  Computers, handheld devices and other equipment to support training initiatives should be up-to-date and available for the public and staff.

**Current Assessment:**

The B&ECPL is committed to supporting quality technology training for both the public and the staff.  Formal public training ranges from one-on-one to classroom-style sessions utilizing three System-run mobile Cyber Trains and three stationary training labs (Central Library, Frank E. Merriweather Jr. Branch and East Delavan Library).  Some libraries have purchased a small number of laptops that in-house staff members utilize for formal training as well.  In addition, the Central Library Launch Pad and informal MakerSpaces at several branch and contract member libraries help support technology training needs.

The B&ECPL currently offers a wide variety of formal classes ranging from computer basics to Microsoft Office to eDevice use.  Although learning computer basics and internet basics continue to be popular topics, there has also been an increased need for classes on tablets and smartphones.  iPad/iPhone Basics, Android Basics, Kindle Fire Basics, Apps for Tablets and smartphones, and eBooks & eReaders classes are all experiencing high attendance as more and more residents purchase and want to learn how to use these devices.

One-on-one training sessions have been in high demand through the Library System.  Staff and public can meet with a Technology Trainer or a Librarian on a topic of their choice.  Evaluation forms completed after these appointments indicate a high degree of satisfaction from the individual attention.  As of December 2016, the two most

requested technology topics for appointments are borrowing library eBooks and using Windows 10.

One-on-one training is also offered to staff and the public in the Launch Pad MakerSpace. Training on the use of a 3D printer is regularly scheduled and new topics such as "Podcasting with Audacity" and "Introduction to GarageBand or ProTools" are being requested by those using the Launch Pad's Recording Studio.

Online instructional videos continue to be produced for the public and staff. These visual guides provide a brief overview of relevant technology topics such as borrowing eBooks, using Windows 10 and showcasing what's new in Office 2016.

Although opportunities for staff training are available on a regular basis, surveys indicate a desire for additional technology training, with an emphasis on the need for a greater understanding of download procedures for the various handheld and tablet devices.

**Goal Strategies:**

Assume a leadership role in the utilization of technology within the community.

Ensure appropriate up-to-date computers, handheld devices and other equipment to support training initiatives.

Ensure up-to-date stationary training labs and mobile Cyber Trains.

Implement additional training venues (mobile and/or stationary) if appropriate and feasible.

Ensure quality public and staff training.

Ensure staff is capable of teaching evolving technology tools to patrons.

Ensure informed staff to support public needs.

# Buffalo & Erie County Public Library

## Technology Plan 2017- 2021 (Appendix B)

## Project No. 18    Websites

**Project Summary:**

A website is typically a collection of related web pages that include a home page.  The B&ECPL's virtual presence www.buffalolib.org provides worldwide access to many of the Library's resources and a venue for certain legally required public postings.  This multi-layered site consists of thousands of inter-related pages and links designed and maintained to keep the public informed and connected to the Library on-line.  The home page features a scrolling tile of major events and initiatives.  Also prominent is information about the library, links to programs and services and a calendar of events.  There is a "Feedback" link for public comment on the website and a "Contact Us" link providing several options for additional communication with the Library.  Each branch and contract member library in the System has its own home page with standardized format operations information (address, open hours, etc.).

**Current Assessment:**

The B&ECPL currently hosts and maintains a Drupal-based public website.  The Library's Web Page Master has primary responsibility for development and updates, but several designated staff members have project-specific editing privileges.  In addition, each library has authorized staff members with the ability to edit and create library-specific information for individual branch or contract member library pages.

In addition to providing general information about programs and services, the current website home page provides links to access information about the Central Library as well as all branch and contract member libraries.  It features a Search Box to search the Library website and catalog. It also highlights download services, technology training, and fundraising initiatives.  A "Which Libraries Are Open Today" schedule is auto-generated from a staff data entry module that updates the information across platforms.  Information about the Buffalo & Erie County Public Library Board of Trustees and Library Policies can also be accessed.  Prominent links are also available for current library promotional initiatives including, but not limited to the new Bookmobile, Online Store and social media sites.

The website is monitored for usefulness and accuracy with new features developed and added regularly.  Efforts are made to keep this site user-friendly and maximize search capabilities.

**Goal Strategies:**

Monitor and ensure useful and accurate up-to-date content.

Continue to promote library services, events and advocacy initiatives.

Add appropriate specialized collections and content (e.g. digitization projects).

Promote resources for remote use.

Establish procedures to regularly review and appropriately de-access dated or irrelevant information.

Ensure ADA compliance.

Conduct regular link-checking.

Maintain website using automated link checkers and HTML validation tools.

Ensure appropriate staff expertise.