TECHNOLOGY PLAN

Approved by the Board of Trustees on
March 15, 2022

School | Public | Academic | Special
Maximizing Library Potential Together

INTRODUCTION

The Northeast Ohio Regional Library System (NEO-RLS) is a multi-type library consortium bringing together a wide variety of talents and resources to maximize library potential throughout the 22-county region. While partially funded through the State of Ohio, NEO-RLS is heavily dependent on the membership dues paid by public, academic, special, and school library members, as well as fees for services. The staff of NEO-RLS provides high quality training, professional development opportunities, and services that meet the varying needs of regional members.

MISSION STATEMENT

The mission of NEO-RLS is to empower the Northeast Ohio library community through high-quality staff development and dynamic collaborative opportunities.

JUSTIFICATION

This plan presents stand-alone goals, objectives and action steps that address the management and development of the technology infrastructure required in support of our mission to provide effective membership services, continuing education programming and other services, including NEO-RLS' emerging technologies circulating collections. The intention of this plan is to guide the on-going codification and assessment of the technology environment to ensure its ability to work in tandem with the organizational goals and objectives of current and future strategic plans.

TECHNOLOGY PLAN

It is understood that this plan serves as the technology underpinning for the fulfillment of the NEO-RLS mission and vision. The following goals, objectives and action steps are in alignment with the 2019-2022 Strategic Plan approved by the Board of Trustees but have been created independently for on-going implementation by the NEO-RLS, four person staffing configuration. The documents created under this plan will be dated and included as Appendices to the plan moving forward. In accordance with the objectives of the plan, new documents will replace older documents as Appendices. The plan will be reviewed biannually by the Technology Committee of the NEO-RLS Board of Trustees.

Processes

- Systems management and administration is carried out by the Fiscal Officer.
- Neothink, an IT company based in Willoughby, Ohio, and BlueBridge Networks, an IT company based in Cleveland, Ohio, provide IT support services as subcontractors on a project basis for our tech support needs.
- The Fiscal Officer and Executive Director oversee implementation of technology projects and will assess equipment/software with the involvement of the Technology Committee and NEO-RLS staff in order to accomplish the goals and objectives of this plan.

Backups

BlueBridge performs backups on 3 servers daily at 5:30 AM. They conduct SAN snapshots on the backend every 6 hours as another form of recovery.

Current Environment

The current technology environment is described in Appendix A.

Disposal of Items

The NEO-RLS Administrative Policy Manual Section 2.15 Disposal of NEO-RLS Audio-Visual Materials, Books, Equipment, states the following:

The NEO-RLS Board of Trustees may annually declare that surplus items may be identified and discarded by the Executive Director. Written permission must be acquired from the State Library of Ohio before disposing of any item that was purchased with LSCA or LSTA funds.

The State Library of Ohio states the following regarding items purchased with LSTA funds:

No information is needed to dispose of items unless a single piece of equipment cost more than $5,000 or equipment is being sold or donated. The State Library of Ohio must be informed regarding single items exceeding $5,000. They also must be provided with a list of equipment and who it will be sold to or donated to and at what cost.

NEO-RLS will request written permission from the State Library of Ohio in all instances of LSTA acquired equipment per the current Board policy cited above.

Information Security

Computers are equipped with Bitdefender Endpoint Security and automatic updates are enabled. Passwords to critical websites and networks should be changed every ninety days. Staff are required to use multifactor authentication for Office 365. Multifactor authentication is required for all applications and websites that offer the service.

Links and attachments in emails should not be clicked on unless verified and received by a known sender.

Network Security

Servers are equipped with Bitdefender Endpoint Security with updates applied automatically. BlueBridge is responsible for the maintenance of the servers.

Disaster Recovery

BlueBridge hosts our servers, including workstations, on a redundant system with one located in Cleveland and the other in Columbus. This allows the organization to operate if one location loses power or experiences other physical damage. Backups created by Bluebridge will be utilized in the case of disaster recovery. See information under backups.

Emerging Technology Equipment

An inventory of extant emerging technology equipment is included in Appendix B. A copy of emerging technology equipment costs and purchase dates is included at the end of Appendix B for the years 2014-2020. Purchase date and cost will be included on the inventory spreadsheet beginning on July 1, 2021.

GOALS AND OBJECTIVES

GOAL 1. Ensure technology infrastructure supports programming and services for members.

Objective 1.1. Stabilize and upgrade technology infrastructure

Action Steps:
- Investigate the viability of leasing equipment
- Develop and implement a three year schedule for the replacement and purchase of equipment
- Create and implement an annual schedule for maintenance and upgrades of the network
- Create and implement an annual schedule for upgrades of all software
- Assess current hardware and software annually for effectiveness and cost-efficiency
- Assess performance of technology providers annually for effectiveness and cost-efficiency
- Review technology maintenance contracts annually for effectiveness and cost-efficiency

Objective 1.2. Review technology in support of business operations

Action Steps:
- Assess the telecommunications service annually for effectiveness and cost-efficiency
- Assess copier/scanner every three years for effectiveness and cost-efficiency

Objective 1.3. Fund technology infrastructure

Action Steps:
- Create an annual technology budget that coincides with replacement, purchase, maintenance and upgrade cycles
- Engage Finance Committee and Technology Committee in creation of an annual technology budget

GOAL 2. Deliver accessible virtual services to all members.

Objective 2.1. Review website annually

Action Steps:
- Perform accessibility audit every three years
- Keep apprised of ADA requirements
- Evaluate use and effectiveness through analytics and surveys
- Engage Marketing/PR Committee in annual review
- Create an annual timeframe and budget for implementing needed enhancements

Objective 2.2. Review webinar software platform annually

Action Steps:
- Keep apprised of ADA requirements
- Provide closed captioning for live webinars and transcription for archives
- Evaluate use and effectiveness through statistics and surveys
- Review ease of archived webinar storage
- Review ease of distribution of archives
- Create an annual timeframe and budget for implementing changes and/or upgrades

GOAL 3. Introduce members to current and future technology trends.

Objective 3.1. Provide up-to-date emerging technology kits

Action Steps:
- Survey members annually regarding upcoming interests and trends in emerging technologies for libraries
- Evaluate emerging technology in kits for effectiveness and currency on an annual basis
- Refresh emerging technology kits as needed based on cost and use
- Create new emerging technology kits based on new trends and survey
- Allocate funds annually to refresh and replace outdated or broken equipment
- Allocate funds annually to create new emerging technology kits as indicated
- Use Kit evaluations to see how technologies are being used in libraries and make adjustments to our methods or types of provision

Objective 3.2. Determine continuing viability of Traveling Tech Lab

Action Steps:
- Evaluate the effectiveness and cost-efficiency of the Traveling Tech Lab annually based on staff time, use and surveys
- Evaluate currency of equipment in Traveling Tech Lab annually
- Allocate funds annually to refresh Traveling Tech Lab technologies as need determines
- Allocate funds annually to replace Traveling Tech Lab outdated or broken equipment as need determines

Description of Current Environment

NEO-RLS plans to continue the 20MBs CSME connection to the Ohio Public Library Information Network. The connection is established through a Juniper SRX300 router which is maintained and serviced by OPLIN. All servers and staff workstations are protected by automatically updated antivirus software. The organization has Windows 10 Professional and macOS computers.

The Baseline Switch 3COM controls all access points. The Fortigate firewall filters traffic and blocks unauthorized access to the network. These controls are plugged into battery backups and devices are serviced and maintained by Neothink.

Cisco SPA 504G IP phone system using VoIP.

Wired 10/100/1000Base-T Ethernet LAN running as a client-server network supports staff access to workstations, the Internet and shared printer.

PC Workstations operating Windows 10 are connected to Internet access and printer and run Microsoft Office Professional 2016 applications. There are battery backups on each workstation.

Executive Director	OPTIPLEX 3070
Fiscal Officer	OPTIPLEX 3050
Continuing Education Coordinator	OPTIPLEX 3070
Extra Workstation	OPTIPLEX 3080

Laptops that utilize Windows 10 operating system run Microsoft Office Professional 2016 applications. The Mac is running macOS operating system and the following list of software programs: Affinity Publisher, Affinity Photo, Affinity Designer, Toolbox for Keynote, Toolbox for Pages, Microsoft Office, Envato Elements, and Adobe Acrobat.

Continuing Education Coordinator   MacPro15"

Servers
BlueBridge supports and hosts Windows Server 2012 R2 that is hosting accounting software. BlueBridge supports and hosts Windows Server 2019 that is hosting Active Directory, DNS, file sharing and workstation backup resources.

Staff E-Mail is provided by Microsoft Office 365 through a web-based interface.

Microsoft Office 365 is a cloud-based productivity suite that provides collaborative applications to assist in calendar, document, email and more. NEO-RLS pays for a monthly subscription to this service.

Wireless Internet Access is provided through an N600 network by Netgear wireless access point.

Managed website, neo-rls.org, including event registration and links to governmental, educational and business resources, is managed and hosted by Vieth Consulting.

Copier is a Ricoh MPC3003 and is set up on the network.

Description	Brand	Series	Model	Serial Number	IP Address	Purchase Date
Battery Backup	APC	SMC1000	C1000	3S1632X01188		Aug-15
Battery Backup	APC	SUA1000	Smart UPS	AS0712220358		Feb-15
OPLIN - Router	Juniper	SRX 300		CV4316AF0661		
Baseline Switch	3COM	SFPP PLUS	3CBLSG48	AB/2TGG9AM246000		
Firewall	Fortinet	FortiGate	FG-60D	FGT60D4Q16080709		Apr-17
Wireless Router	Netgear	N600	WNDR3400v3	3CM23B7MA90E8		
Internet Switch	D-Link		DGS-1100-05	Q8v91e8000061		
Copier	Ricoh		MPC3003	E155M760270		

DESKTOPS
Executive Director

Description	Brand	Series	Model	Serial Number	IP Address	Purchase Date
8 GB RAM 3.0GHz	Dell	OPTIPLEX 3070 Ethernet	i5-9500 CPU	CSTF643		Jun-20
5 PORT SWITCH	Netgear	Switch	GS305	401186080B3A8		Aug-18
24 INCH MONITOR	DELL	E2420H		CN-01C8RN		Jun-20
24 INCH MONITOR	DELL	P2418HZm		CN-0NHH731		Sep-20
Battery Backup	APC	Pro I000		4B1814P27408		

Fiscal Officer

Description	Brand	Series	Model	Serial Number	IP Address	Purchase Date
8 GB RAM 3.40GHz	Dell	OPTIPLEX 3050 Ethernet	i5-7500 CPU	C8DD6Q2		Dec-18
5 PORT SWITCH	Netgear	Switch	GS305	401186565C63A5		Aug-18
23.8 INCH MONITOR	HP	884166-1	VH240A	3CCW83608FX		Jan-16
23.8 INCH MONITOR	HP	884166-1	VH240A	3CCW83608TK		Jun-18
Battery Backup	APC	Pro I000		6D1719B52587		Jun-20

Continuing Education Coordinator

Description	Brand	Series	Model	Serial Number	IP Address	Purchase Date
8 GB RAM 3.0GHz	Dell	OPTIPLEX 3070 Ethernet	i5-9500 CPU	G77QB43		Jul-20
5 PORT SWITCH	Netgear	Switch	GS305	40118662063A2		Aug-18
23.8 INCH MONITOR	HP	884166-1	VH240A	3CCW836C8ST		Jun-20
22 inch monitor	VIZIO	VX2252MH	VS15560	TVR161260246		May-13

Description	Brand	Series	Model	Serial Number	Purchase Date
Extra Workstation					
8GB 3.3GHz	Dell	OPTIPLEX 3080	i5-4590CPU	B3LS712	Feb-15
23 Inch Monitor	Samsung	SyncMaster	2333HD	CM23H9NS203373P	May-13
LAPTOPS					
Continuing Education Coordinator					
15 Inch	MAC	MacBookPro 15" Ethernet		C02XV27SJGH5	Dec-18
5 PORT SWITCH	Netgear	Switch	GS305		Aug-18
17 Inch	Dell	Inspiron	P84F	6D16W22	Jun-20
17Inch	Dell	Inspiron	P84F	FC16WZ2	Jun-20
15 Inch	HP	Spectre x360	AA586	3E01B5C9935	Dec-17