

INTRODUCTION

Libraries must keep pace with changes in society and technology to remain relevant and useful in the lives of their constituents. Libraries have evolved from operating as a “warehouse for books” to lively centers serving the community in ways previously unimaginable. Library planning emphasizes the importance of the following concepts: consume, connect, and create.

- Consume: People come to libraries to use materials such as physical books, e-books, streaming media, etc.
- Connect: People come to libraries for small group interaction, tutoring, one-on-one continuing education spaces, small business-friendly meeting rooms, interactive gaming, video conference, and more.
- Create: People come to libraries to create in a digital world with shared resources such as video and music editing equipment, recording facilities, graphics software, 3-D printing, etc.

Technology is crucial to supporting a wide variety of functions and uses of the library. The Technology Plan is intended to provide an assessment of current technology resources and to guide priorities for the plan period covering March 2017-March 2019.

The plan was officially adopted by the Board of Trustees on March 23, 2017.

VISION

Geneva Public Library District (GPLD) will be a resource for the community, both a physical place and an information portal, where patrons will learn and explore 21st century skills and technologies. Patrons will be able to access the library 24/7, through its website and digital resources. Patrons will be assisted by knowledgeable, trained staff that can help them make the

best use of both new and traditional information resources. Library staff will be supported by up-to-date technology equipment that enables the provision of quality services that are efficient and cost-effective.

BACKGROUND INFORMATION

In March 2016, GPLD completed its second Edge Assessment. The Edge Assessment is a self-assessment and technology planning toolkit developed by the Bill and Melinda Gates Foundation to assist libraries in setting priorities and developing strategic goals. GPLD received a score of 730 out of 1000, an increase of 190 points above its December 2014 score, and ranked above average in peer comparisons of medium sized libraries. The higher score resulted from increased bandwidth, expansion of technology programming, and improved strategic planning.

Some additional benchmarks to be improved upon and incorporated into goals for the coming years are as follows:

- Provide Internet-enabled devices for use within the library
- Provide video conferencing equipment for public use
- Provide presentation equipment (e.g., projector, microphone, document scanner) for public use
- Provide production equipment (e.g., digital cameras, microphone) for public use
- Provide at least one public terminal with assistive technology that enable use by persons with visual, motor, and dexterity impairments

GOALS AND STRATEGIES

Migration to the SWAN Consortium

GPLD is currently a member of LINC (Library Integrated Network Consortium), an eight library consortium. In early 2016, GPLD learned of the eventual dissolution of the LINC Consortium. In March of 2016, Carol Dawe from LINC met with representatives from SWAN, the System Wide Network Consortium, to discuss the possibility of the LINC libraries joining SWAN. Pricing and timelines were presented to the Library Board of Trustees and in September 2016, the Board approved an ordinance authorizing membership in SWAN. The SWAN consortium currently consists of 77 libraries that share a catalog of over 8 million items and a patron database of 1.1 million registered users. This move will increase GPLD patron access to materials and significantly decrease consortium costs.

Library staff will review patron and collection databases, identify necessary modifications, and continue to work with both LINC and SWAN staff to ensure a smooth migration of data to the SWAN shared catalog and launch for GPLD patrons. The migration to SWAN is expected to be complete by June 2018.

After all LINC libraries move to SWAN the LINC consortium will dissolve. In addition to providing and maintaining access to a joint catalog, LINC also hosted GPLD's website, Intranet, email, and event and room reservation platform. GPLD has already migrated many services to internal servers or the cloud. Migration of the Library website needs to be completed before the dissolution of LINC.

Implementation of Communico Software

In November 2016, the Library Board of Trustees approved a lease agreement for use of the Communico base platform. Communico is an integrated suite of software applications built especially for libraries to manage event registration, room and equipment reservations, web and mobile app content, and digital signage. The Communico platform will streamline staff workflow by allowing management of online services from a single centralized console. It will also facilitate ongoing plans to provide online event and room reservations for GPLD patrons. Implementation of the Communico platform began in December of 2016 and should be complete by fall 2017.

Once GPLD is fully operational on the Communico platform the following products/services will no longer be supported or maintained: Evanced Events and Reserve, Boopsie Mobile App, Rise Vision Digital Display, and Drupal website.

Website Redesign / Migration

The Library seeks to provide barrier-free online access to library information and resources, to promote awareness of library services and opportunities, and to build library brand recognition in the community using a variety of online technologies, including the library's website. GPLD's website provides digital marketing for library services as well as a gateway to library resources such as event registration, online resources, downloadable books, etc. The website is available to community members 24/7 even when the library is closed and thus serves as a digital branch.

The current website launched in 2011. While it has been continuously updated there has been no major design overhaul and it is need of a fresh look. In addition to moving the current website off of the LINC server as dictated by the dissolution of LINC, GPLD will also redesign the site. A staff led cross departmental team charged with ensuring a consistent voice across all GPLD communication channels is currently in the first phase of a website redesign project. The

redesign project includes completing an inventory of the current site, weeding and organizing content, and developing a mission statement and maintenance plan. Design work will occur after completing content and infrastructure analysis. Use of an outside design firm may be necessary to complete the design work.

The redesigned website will be built on the Communico platform to provide users with convenient, easy to use access to digital services and a consistent look and feel across all the library's digital touchpoints. The site needs to be mobile friendly for today's lifestyle.

RFID

RFID (Radio Frequency Identification) is used by libraries for circulating and securing collection resources. RFID offers significant advantages over traditional barcodes and magnetic tape. RFID streamlines staff workflow and provides for a faster and more convenient self-check experience for patrons as well as enhanced security. RFID also allows for the implementation of other services aimed at saving space and time, such as laptop and media dispensers.

Staff will research options and pricing for the implementation of RFID and provide a recommendation and projected timeline for implementation. A Request for Proposals (RFP) will be developed to obtain proposals from leading vendors for purchasing RFID hardware and software, including new self-check machines and desk readers.

Barcodes on all existing collection materials will need to be replaced with RFID tags. A staffing plan for tagging the library's collection of approximately 142,000 items will need to be developed. A temporary staffing increase for the purpose of tagging the collection should be expected.

Technology Exploration and Learning

The library is ideally suited to help community members learn and explore 21st century technologies. To that end, GPLD will provide users with a broad selection of popular interest electronic resources including eBooks, eAudiobooks, and streaming content. GPLD will offer a wide array of technology programming ranging from basic skills to advanced applications using staff as well as industry professionals. GPLD will continue to purchase popular electronic devices and up to date equipment for use in the Library and for lending to community members. Staff will stay abreast of emerging technologies and trends and will evaluate new products and services as they arise.

Maker Movement

Libraries have always offered users access to materials and services that may otherwise be unavailable. These shared resources began with books and have since expanded to include a host of other offerings. Today, libraries are offering “maker spaces,” which are spaces with video and editing equipment, recording facilities, graphics software, and equipment like 3-D printers, laser cutters, etc.

GPLD’s current facility does not have space to provide a dedicated maker space. However, the community continues to express interest in having access to creative offerings. Library programming will provide maker opportunities and staff will continue to hone their maker skills in preparation for a time when space constraints do not dictate offerings.

Accessibility

GPLD seeks to ensure participation in digital technology for people with disabilities. To that end, staff will investigate ADA compliant options and implement assistive technology services for persons with visual, auditory, motor, and dexterity impairments as feasible given the current building limitations. Accommodations for accessibility will be highlighted in the building and on the website.

Digital Marketing

Social media and email is used to share information about library services and resources. Mailchimp is currently used to communicate with more than 1,500 patrons who subscribe to the twice-monthly email. Facebook, Twitter, and Instagram are used to communicate via social media. Over the next two years, GPLD will continue to refine email marketing methods, to communicate with different audiences: welcoming new members to the Library and informing them of the benefits membership provides; reaching out to lapsed cardholders, bringing them up to date on Library services and inviting them to visit; and targeting Library cardholders based on interests - such as youth storytimes, technology programs, or 20s & 30s events - in order to raise awareness and increase participation in programs and services.

Staff Training and Resources

Ongoing technology training for staff and access to resources for working and communicating in a digital world is necessary to ensure staff is knowledgeable and equipped to facilitate excellent

service to patrons and able to make data driven decisions about library services. A library-wide training initiative will include the continuation of informal Lunch and Learn sessions that focus on helping staff explore new technologies and a more formalized program focused on providing training for staff on using the software available on the library's public computers. This formalized training will include bringing in professional trainers as well as utilizing web-based resources such as Lynda.com.

Mobile technology is commonplace in the modern work environment and allows staff to work and to assist patrons anywhere. A transition away from desktop computing will free staff to move about the building and beyond. The Communico platform includes the mobile application, Roam, which will allow staff to assist patrons with checkouts, holds and renewals, event registration, and room booking without being tied to a specific location. In preparation for the implementation of Roam, staff will be provided with the mobile devices needed to make effective use of this technology.

NETWORK INFRASTRUCTURE & CURRENT LIBRARY TECHNOLOGIES

Servers, Switches, Firewall and Router

GPLD's network infrastructure consists of 5 HP Procurve 2530 GB LAN switches, 3 HP Procurve 2530 GB switches used for the VOIP phone system, and 2 Cisco Layer 3 core switches used for VLAN routing. GPLD runs 5 physical and 10 virtual servers with Windows Server 2012 R2 operating system. Virtual servers are hosted on the Microsoft Hyper-V platform. The network is protected with a Sonicwall NSA 3600 firewall. NSA 3600 is a 'next-generation' firewall that provides deep packet inspection and offers intrusion protection, malware protection, and gateway anti-virus. GPLD uses a Cisco 3800 Series router.

Internet

GPLD maintains two Internet connections: a Comcast line used for all general internet traffic and an AT&T fiber optic line. In August 2016, the Comcast line was upgraded from 50 Mbps to 150 Mbps. The AT&T fiber optic line is provided at a discount through Illinois Century Network and is used as a VPN connection to the LINC Office in St. Charles. The VPN connection will be reconfigured to connect with SWAN when LINC dissolves.

Wi-Fi

GPLD's Wi-Fi network employs the latest 5 GHz wireless standards and consists of 4 Cisco Meraki MR18 802.11n and 1 Cisco Meraki MR32 802.11ac access points. The Wi-Fi network sees an average of 180 unique devices connected per day and normally utilizes between 8 and 24% of the available channel bandwidth. The patron Wi-Fi is open and unencrypted and resides on a subnet separated from the rest of the library's network. Wi-Fi coverage extends to all public areas within the building. Digital Services staff stays abreast of emerging wireless technologies, monitors Wi-Fi usage, and evaluates library needs.

Backup System

Library data is backed up to tape using an HP LTO-5 Ultrium tape drive and the Acronis Advanced Backup software. A full backup is done weekly with incremental backups added each night. The most current backup tape is kept off-site and rotated weekly.

VOIP Phone System

GPLD uses the Avaya IP Office VOIP phone system and Voicemail Pro software. The phone system uses 3 HP ProCurve 2530 switches and can accommodate 60 telephones. GPLD contracts with CCC Technologies for maintenance and support.

Integrated Library System (ILS)

GPLD belongs to LINC, a consortium of eight member libraries (Batavia, Bloomingdale, Geneva, Glen Ellyn, Itasca, St. Charles, Villa Park, and West Chicago). LINC uses the SirsiDynix Symphony 3.4 automation system and the SirsiDynix Enterprise OPAC (Online Public Access Catalog). Staff access the system using WorkFlows Symphony software to find materials and patron information, and to generate reports. Director's Station software is available to management staff and is used to generate reports. LINC provides access to Shoutbomb (texting) service, Mobile Circ and LIBAnywhere apps, and CollectionHQ and eResource Central software. Plans are underway for migration to the SWAN Consortium which should be complete by June 2018.

Public Internet and Computer Use

GPLD offers free wireless internet access throughout the building for public use. Adults have access to 11 wired computers: eight PCs with Windows 7 and three IMacs with Sierra. Five internet enabled tablets and laptops are also available for use in the building. Children have access to eight wired computers, six are used for general internet and two are AWE Learning Early Literacy Stations. Internet computers in Youth Services use the filtering software, K-9 Blue Coat. Public computers in Information and Reader Services are not filtered.

MyPC time management software is used on all public computers, with the exception of the AWE, early literacy stations, to distribute computer time equitably. Patrons in Information and Reader Services can make reservations for the next available computer or up to a week in advance. Printing is managed with the PaperCut software and is available from all public computers. Both black and white and color prints are available.

The following software is available on public PCs in Information and Reader Services:

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Publisher
- Microsoft Access
- Picasa 3 Photo Editor

The following software is available on public iMacs in Information and Reader Services:

- Adobe Creative Cloud Suite
- Pages
- Numbers
- Keynote
- iMovie
- Photos

The following software is available on public PCs in Youth Services:

- Mighty Math Calculating Heroes
- Sammy's Science
- Bailey's Book House
- Millie

- I Spy Treasure
- Kid Pix Deluxe
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Publisher
- Microsoft Access
- Minecraft Edu Launcher

Desktop and Software Management

GPLD uses a variety of software programs to manage and deploy desktop computers for both patrons and staff. Microsoft Windows Operating System and Microsoft Office Suite licenses are purchased through the Microsoft Volume Licensing program. Microsoft Volume Licensing with software assurance allows GPLD to continually upgrade at no additional cost. Windows Operating System updates are distributed through WSUS (Windows Server Update Services) and performed daily. Third party and plugin updates such as Flash, Adobe Reader, and WinZip are handled through the Ninite software platform and completed weekly. Faronics Antivirus is installed on all desktop PCs and servers and automatically updates every few hours. Digital Services staff uses Windows AIK (Automated Installation Kit) for desktop imaging and maintains current images of all PC configurations. Windows AIK, Windows Group Policy, and WSUS are free services bundled with Windows Server software.

All public computers are configured for security through Windows Group Policy and use Faronics DeepFreeze, a system restore program that clears changes upon reboot. Public Web Browser is used as security software on the OPACs (online public access catalog).

The following is a list of subscription software renewed annually:

- Faronics Antivirus
- Faronics DeepFreeze
- Ninite Pro
- Public Web Browser
- Lansweeper
- Mailstore

OPACs (Online Public Access Catalogs)

There are 11 OPAC stations throughout the library. Currently, the OPACs use Public Web Browser software in kiosk mode to limit patron searching to the library catalog. The implementation of the Communico software will provide additional functionality that will allow for an interactive, touch-enabled catalog interface. Staff will explore these options and implement features to meet patron needs.

PC Replacement Cycle

GPLD purchases PCs on a four year replacement cycle. Older PCs are repurposed as OPACs. Equipment that is no longer usable is picked up for recycling by MRK Group, Ltd. in Elgin, IL.

Remote Access

Remote access is available as needed to exempt level staff via a subscription to the LogMeIn software.

Self-Check Kiosks

GPLD owns three iCirc self-check kiosk units provided by Central Technology, Inc. The self-check units typically handle 63% of all checkouts. The iCirc self-checks are not RFID compatible. Implementation of RFID technology will require upgraded units.

Digital Signage

GPLD has two LED monitors, one smart TV, and uses the Rise Vision Digital Display platform to create digital displays highlighting services and upcoming events. The Rise Vision platform allows staff to use the RSS feed from the event calendar and existing slider content from GPLD's webpage. Plans are underway to transition to the Communico platform for digital signage. Communico allows any internet enabled device to be used for broadcasting. Room schedules, program information, and website content can be pushed out to digital signage using customized channels.

Print Management

GPLD contracts with Gordon Flesch for managed print and copy service. Gordon Flesch provides printer and copier maintenance and repairs and delivers toner and ink cartridges. GPLD owns 14 managed printers and leases three copiers.

Website and Web Applications

GPLD maintains a website to provide information and access to materials. The website is maintained on the open source platform, Drupal, and is hosted by the LINC Consortium.

GPLD uses the following third party web applications:

- Boopsie Mobile App- Provides mobile access to the catalog, databases, events, and a virtual library card
- Mosio Text-a-Librarian – Provides for text message and chat reference
- Shoutbomb – Sends text messages to patrons regarding the availability of holds and renewals
- New Book Alerts – Provides notification to patrons regarding new books, videos, and movies added to the library catalog
- Author Check – Allows patrons to subscribe to favorite authors and receive notification when new material is added to the catalog
- Evanced Events and Room Reserve – Displays calendar of events, handles program registration and room reservation

Migration of web content and integration of new web applications on the Communico platform will greatly change the landscape of current offerings and infrastructure.

Social Media

GPLD connects with patrons through the following social media platforms:

- Facebook (1807 followers as of February 2017)
- Twitter (2209 followers as of February 2017)
- Instagram (486 as of February 2017)

Streaming and Downloadable Content

GPLD offers digital content through a number of different platforms. Users can download or stream content to any platform compatible device including most tablets, smartphones, and computers.

GPLD provides access to the following e-resource platforms:

- OverDrive eMediaLibrary (eBooks & eAudiobooks)
- eRead Illinois (eBooks)
- Hoopla (movies, music, TV & eAudiobooks)
- Zinio (eMagazines)

Subscription Databases and Learning Platforms

GPLD provides access to subscription-based electronic databases and online learning platforms. Staff investigates new products and monitor usage of existing services. A current list of subscriptions is provided at the end of this document.

Laptop Training Lab

Laptops are used to teach a variety of adult technology classes and to support both youth and teen programs. Six MacBook Pros and 16 laptops that dual boot to either a Windows 10 or Mac Sierra environment are available. Additional Mac Laptops will be purchased to facilitate growing demand for Apple/Mac based programming and classes.

Digitization Equipment

Digitization equipment is available for patrons to use in the library to convert older media such as VHS, 8mm, Reel-to-Reel, and audiocassette tapes, photos, slides, and film to digital formats. Devices include: a Wolverine Photo Digitizer, Wolverine Slide and Film Converter, Toshiba VHS to DVD convertor, Ion LP Turntable, Ion audiocassette player, Sony Hi8mm camcorder, Elgato Video Capture device, and an external DVD burner.

Lending Devices

Devices and equipment available for use by patrons outside the library include: iPads, Samsung Galaxy tablets, Nook Glowlights, Elgato Video Capture devices, Wolverine Photo Digitizers, Wolverine Slide and Film Digitizers, Ion audiocassette convertors, and Toshiba VHS to DVD convertors.

CURRENT TECHNOLOGY INVENTORY

Physical Network

2 Cisco 3750x switches	LAN
3 HP Procure 2530 48port GB switches -	LAN
2 HP Procure 2530 48port GB POE switches	LAN
1 3COM 24 port GB	LAN
1 3COM 26 port GB switch	LAN
1 HP Procure 2530 8port GB POE switch	Wi-Fi
3 HP Procure 2530 24port GB POE switches	VOIP
Avaya IP Office 500 v2	VOIP Phone System
SonicWALL NSA 3600	Firewall
Cisco 2800 Series	Router
4 Cisco Meraki MR18	Access Points
1 Cisco Meraki MR32	Access Point

Physical Servers & Operating System

Dell PowerEdge R510	Windows Server 2008 R2
Dell PowerEdge R510	Windows Server 2008 R2
Dell PowerEdge R620	Windows Server 2008 R2
HP ProLiant DL380P Gen8	Windows Server 2012 R2
HP ProLiant DL380P Gen8	Windows Server 2012 R2

Virtual Servers & Operating System

AVServer	Windows Server 2008 R2
Fileserver01	Windows Server 2012 R2
Fileserver02	Windows Server 2012 R2
GPL-Intranet	Windows Server 2008 R2
GPL-MyPC	Windows Server 2012 R2
GPL-WSUS	Windows Server 2012 R2
GPL-VOIP	Windows Server 2012 R2
GPL-PrintServer	Windows Server 2008 R2
Mailstore	Windows Server 2012 R2
Minecraft	Windows Server 2012 R2

Desktop Computers

27 Dell OptiPlex 990
22 Dell OptiPlex 9010
14 Dell OptiPlex 960
20 Dell OptiPlex 9020
5 Apple iMacs

Laptops

16 MSI Laptops Windows 10 64 bit
6 MacBook Pros Mac Sierra
6 Dell Laptops Windows 7 32 bit

Copiers

2 Canon ImageRunner 3225
1 Canon ImageRunner 3480

Tech Zoo Devices

iPad Mini
iPad Mini 2
iPad (First Generation)
iPad 2 (Third Generation)
iPad 3 (Fourth Generation)
iPad Pro
Surface Pro
Galaxy Tab
Galaxy Tab E
Kindle Fire (2)
Kindle Fire HD
Kindle Fire HDX
Nook Color
Nook Tablet
Nook HD+ (2)
Nook GloLight
MacBook Pro
MacBook Air
Lenovo ThinkPad (2)
Wi-Fi hotspot

Portable Projector (small silver projector)
Epson PowerLite Projector
Chromebooks (2)
Kobo (2)
Kindle Basic
Kindle Touch
Nook 1st Edition
Nook Simple Touch
Sansa Clip
iPod Nano
Flip Camera
GoPro Camera
Laser Pointer
Webcam
USB Microphone
Headset (2)
USB (2)
Makey Makey
Squishy Circuits
Yeti Microphone 1
Yeti Microphone 2
JVC HANC250 Headphones (2)
JVC Everio GZ-EX250 Camcorder
Large Tripod (Stored in Meeting Room Closet)
Mini Tripod
External Hard Drive 1
External Hard Drive 2
Green Screen + Stand
MicroBeam 512 LED Video Light
Voice Amplifier (hands free microphone and speaker)
Big Tab 1
Big Tab 2
Elmo Document Scanner
Dash Robots (3)
Sphero Balls (3)
Wireless printer

Printers

HP 4200

HP 3600

HP CM2320

HP CP3525

HP LaserJet 1100

HP LaserJet 1300

HP LaserJet 1320

HP LaserJet 1505

HP LaserJet 3015

HP LaserJet 1600

HP DesignJet 90r

HP DesignJet 130

HP LaserJet Pro M451dn

HP LaserJet MFP 575

2 HP LaserJet 1022

Miscellaneous

Lenovo Think Vision LT2252p Monitor

4 Lenovo ThinkPad laptops

4 Epson PowerLite Projectors

Shure ULX Lavalier microphone

DVD Player

ScanStation scanner

Money AutoLoader

2 C pads

4 Star Receipt printers

4 Epson Receipt printers

50 Avaya handset phones

3 Cen-tec iCirc self-checkout machines (computer, monitor, scanner, printer, cabinet)

2 iPads (Mobile Circ devices)

1 iPad Pro (Youth workroom)

3 iPad Airs (Youth tech area)

CURRENT SUBSCRIPTION DATABASES

A to Z Databases
A to Z Maps Online
A to Z the USA
A to Z World Travel
Access Science
Amazing Animals of the World
America the Beautiful
Ancestry Library Edition
Biography in Context
BookFlix
Britannica Library Reference center
Chicago Manual of Style
Chicago Tribune
Chilton Library
College Preparation Center
Consumer Reports
County and Regional Histories & Atlases: Illinois
CulturalGrams
CulturalGrams Kids Edition
CultureGrams States Edition
Enciclopedia Estudianti Hallazgos
Encyclopedia Britannica Online for Kids
Encyclopedia Americana
ePrep
Ferguson's Career Guidance Center
FirstSearch
Gale Artemis Literary Sources
Gale Directory Library
Gale Virtual Reference Library
General Reference Center Gold
Geneva Republican
Grolier Multimedia Encyclopedia
Grolier Online Kids
Grolier Online Passport
Health & Wellness Resource Center

HelpNow!
HeritageQuest Online
Historical Newspapers
eRead Illinois
Inside MLB
Inside the NFL
Issues & Controversies
Job & Career Accelerator
JobNow!
Lands and Peoples
LearningExpress Library
Literature Criticism Online
Literature Resource Center
Little Pim
Lynda.com
Miss Humblebee's Academy
Mango Languages
Morningstar
Muzzy Online
National Geographic
New Book of Knowledge
New Book of Popular Science
Novelist K-8 Plus
Novelist Plus
La Nueva Enciclopedia Cumbre
OverDrive eMediaLibrary
Overland Journeys: Travels in the West 1800-1880
Oxford English Dictionary
Oxford Reference
PebbleGo
Primary search
Record Information Services
ScienceFlix
Something about the Author
Student Resources in Context
Today's Science
TrueFlix
U.S. Major Dailies

U.S. Presidents
Universal Class
Value Line research Center
WilsonWeb OmniFile
World book Web
World News Digest
WorldCat