

# Claverack Free Library

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## Technology Plan

March 2018

**Technology Vision Statement:** The Claverack Free Library will be an essential contributor to the quality of life in the Town of Claverack and the surrounding communities. Per today's virtual and physical libraries, our role will be to provide value-added products and services via convenient access to electronic information resources through proven technology and telecommunications. The Library will be both a physical place as well as an information portal, where residents will be able to access the library 24 hours a day, 7 days a week, through its website and electronic resources. Patrons will be assisted as needed by knowledgeable and trained staff that can help them make the best use of both new and traditional information resources. Staff will be supported by up-to-date technology to ensure quality services that are efficient and cost-effective.

**Objectives of this Plan:** This plan is intended to guide technological development in the Library for the next three years. It will support the needs of the library's mission statement, stimulate thought and discussion about the technological needs of our community, provide structure for planning and budgeting in the next three years, provide a base to plan for technology in building expansion and finally, and, if agreed to, meet the criteria of the FCC for application for the E-rate discount for telecommunications.

**Current Technology Environment:** The Claverack Free Library has a hardwired network of 7 patron computers and 3 staff computers, including one laptop and 4 chrome books. The Claverack Free Library also provides 24 hours a day, 7 days a week WiFi access via use of an Aerohive access point connected to a Netgear router. WiFi users must agree to the WiFi policy appearing on their devices in order to proceed using the Library's WiFi system.

Staff workstations are the tools used for public services functions, such as checking out materials, cataloging materials, placing reserves and Interlibrary Loans, updating the Library website, creating communications material, answering Reference queries and e-mails, and Reference database searching. Telecommunications are provided in the form of high-speed broadband through Mid-Hudson Cable for phone and internet connectivity.

The Library has an HP LaserJet Enterprise M506 black and white printer accessible by all computers. The first 5 printed pages, per day, are free of charge. The Library charges \$0.10 per page after the free limit has been exceeded. The Library also has an HP Officejet Pro 8600 black and white / color printer for printing via staff computers and for general copy, scan and fax offerings. The Library charges \$0.25 per page printed on this printer. Connected to the Library Director's computer is a HP Color Laser CP1215 printer for the exclusive use of the Library Director. Lastly, the Library employs a Epson M129H receipt printer at the front desk.

The Library maintains its own website within the framework defined and managed by Mid-Hudson Library System personnel in Poughkeepsie. The Library's website is hosted

by Mid-Hudson Library System on their servers in Poughkeepsie. The Library provides wireless Internet access inside and outside the building through a single Aerohive access point. Access is available to users having hardware equipped with wireless network cards meeting the WiFi standard IEEE 802.11b or 802.11g.

The Library's website and Facebook page are updated to communicate events, programs, new books and movies and unanticipated library closings. The library web site is also maintained to communicate Capital Campaign information and as a repository for library policies. Some policies, specifically Internal Policies, are identified as written on the library website but accessible only by Board of Trustees members by logging into the library web site.

Telephone service is provided through Verizon, via a third party vendor. The telephone is setup with a voice mail system.

For presentations, the library has a EX9200 Pro Wireless WUXGA 3LCD Projector.

A mix of Cat 5 and Cat 5e Ethernet cabling is employed to connect the hardwired networked computer to, effectively, an Arris Touchstone DG860A Cable Modem provided by Mid-Hudson Cable.

The modem is connected to a Netgear Dual Band WiFi Router (R6300). The router feeds a Linksys EF4124 24-port 10/100 Ethernet switch (by front desk). Cat 5 cable from the EF4124 feeds various switches. The Aerohive access point is connected to the Netgear router via a Cat 5e cable to provide WiFi access.

A SMC EZ1016DT 16-port 10/100 unmanaged fast Ethernet switch at the patron computer table, employing Cat 5E cables, connect the 6 patron computers to the Linksys EF4124 24-port switch. 5 headphones are available at the patron computer for patron listening pleasure.

A Star tech 5105 5 port 10/100 Fast Ethernet switch on the office desk, connect the Director computer, Trustees computer and the HP LaserJet Enterprise M506 printer to the Linksys EF4124 24-port switch. Connected to the Trustee computer is a Toshiba Canvio 3TB External Hard Drive (Model DWC130) used to backup Trustee data.

The staff computer at the front desk, patron catalog computer and the HP Color Laser CP1215 printer is directly connected to the Linksys EF4124 switch.

All computers have Office 2016 installed. Patron computers have Faronics Deep Freeze installed, with annual maintenance renewal in force. Staff computers have Norton Anti-Virus installed, with annual maintenance renewal in force. Filemaker is installed on the Trustees computer, with annual maintenance renewal in force.

**Technology lifecycle management program:** This program, begun in 2018, includes all technology resources: desktops, laptops, chrome books, tablets, printers, routers etc. Our immediate focus will be on patron and staff computers. With a

total of 10 Library computers, replacing 2 computers per year would allow us to replace all current computers over a 5 year period. Therefore, computers would be replaced after 5 years of use. The 2018 Technology budget includes funds to replace the non-function patron computer, along with 1 other patron computer. As we plan for replacing Library computers, future technology budgets will need to be increased to implement this program.

**2018 Challenge:** Mid-Hudson Cable confirmed our service should be 80 Mbps download and 7 Mbps upload. This service was tested by connecting a laptop directly to the modem (bypassing the network) and ran tests getting consistent 80/7 results. Per the library Annual Report, however, the download and upload speeds are significantly lower at the staff and patron computers, which use the library network. The download speed drops below 19 Mbps and upload speeds drops below 1 Mbps. The upload speed is problematic for Sierra which requires a minimum of 1 Mbps.

There are a number of things that could be degrading the performance, including equipment issues, bad cabling and network chatter. The Technology Committee will need to spend time investigating this matter, assess the reason(s) for the degradation and develop a plan to overcome deficiencies/problems in the library network.

## **The Technology Plan addresses six library service areas where technology has an impact:**

### **Public Services**

Goal: Expand and enhance public access through technology.

Action:

1. Address the 2018 Challenge.
2. Upgrade Library computers designated in the Technology lifecycle management program, and replace printers as needed. PCs are on a 5 year replacement plan; printers, at this time, are replaced only when necessary.
3. Investigate patron login software displaying similar language as that of Library WiFi access language without the ability to limit patron use as employed in other local libraries.

### **Staff Services**

Goal: Provide staff with hardware, software and training required to provide excellent service.

Action:

1. As budget allows, send staff to technology related conferences sponsored by the American Library Association and New York Library Association.
2. Attend workshops on relevant technology topics

## **Network Services**

Goal: Improve and maintain network connections. There is a need to always provide the fastest Internet connection as prompt delivery of information in electronic formats is becoming the prevalent method of information transfer.

Action:

1. Address the 2018 Challenge.
2. Conduct annual assessments of telecommunication services, hardware and software inventory, plus systems and software upgrades needed for providing optimal services.
3. Budget for the purchase and maintenance of hardware, UPS equipment (uninterruptible power supply), and software (including upgrades), and telecommunications cabling and equipment as needed.
4. Investigate and consider use of an anti-virus software compatible with Faronics Deep Freeze.
5. Conduct annual reviews and revisions of technology needs and goals in response to new developments and opportunities in technology as they arise (i.e. RFID, downloadable books, new audio and video formats, online databases, portable phone systems, etc.).

## **Wireless Services**

Goal: Upgrade and maintain the wireless network throughout the Library.

Action:

1. Maintain the wireless access points.
2. Consider increasing the number of wireless access points to allow uninterrupted and expanded service around the library building.
3. Continue to monitor the number monthly WiFi access to determine a true picture of the library WiFi use. Additionally, attempt to obtain more detailed information from MHLS about the library WiFi use, such as use by day and time of day.

## **Telecommunication Services**

Goal: Maintain high speed telecommunications connections that will allow the library to provide excellent service.

Action:

1. Investigate installation and use of 2-way wireless phones for staff communication

## **Website Development and Maintenance**

Goal: The basic infrastructure and design of the website are set by MHLS, but web pages needs to grow and updated regularly to promote the library benefits to the public. Promote, maintain and improve website, expanding usefulness, functionality, and access to current information.

Action:

1. Promote the Library website through news releases, Friends of the Library newsletters to the public, Capital Campaign new releases, and any other means.
2. Fund website hosting and maintain the web site.

**Plans for the New Library Building:** There are several major items that need to be explicitly defined and planned for before and during interior construction for the new library.

1. Telecommunications and Network wiring needs to be cable providing the highest speed data transmission, currently Cat 7. At a minimum, Category 6 cable is to be installed. Solid cable should be installed wherever they will not be moved, such as behind walls. Stranded cable should be installed wherever they are exposed and may be moved. All cables should be shielded. If cost is not an issue, fiber optic cabling should be considered if fiber optic cable is to be used to feed the new library building.
2. Cabling should not be only to connect to computers, etc. Ethernet connectivity needs to be made available along the perimeter of the main library space, in the children's room, in the teen space, history room, meeting room and community room.
3. Network, Wireless and Telecommunication Services: Redeploy servers, switches and supporting hardware or purchase new equipment and place into a secured area away from heat, water pipes and accidental brush-by disconnects. At this time, there is coinsurance to install a "computer cage" in the basement, sufficiently removed from the Electrical Mechanical Area so as not to introduce EMF interference in computer networks.
4. Wiring rack, patch panels, temperature and humidity control of the IT room, monitors in the IT room (if any), uninterruptible power supplies (if any), surge protectors, etc. to be installed in the 'computer cage' must be defined.
5. Presentation technology needs to be installed in the Community Room (Ceiling-mounted wireless LCD projector, remote control screen, sound system, and a smart board). Consideration for same should be given for history/conference/movie room. Wired systems are preferred and highly suggested due to their reliability. Wireless should be considered as backup, although if a wired connection is not functional, a wireless connection may not be useful.
6. The existing telephone may need to be replaced.
7. Wireless access point may need to be upgraded, and new ones added.
8. The number of computers, printers and peripherals needs to be increased for the expanded library. Routers, (PoE) switches, security system, surveillance cameras and video recorders, patron computers, public printers, staff computers, staff printers, telecommunication equipment, children's computers, etc. must be defined.

9. The budget for computer equipment and technical support will have to significantly increase in order to expand computer services in the new library building.
10. Consider installing print management systems on public computers and photocopiers.
11. Consider making the building “RFID Ready,” (Radio Frequency Identification Technology) to enable patron check-out, check-in, to track materials for security purposes and to speed circulation of library materials.
12. Consider installing self-checkout computers.
13. Consider installing near the library entrance an electronic sign board for library calendar and events.
14. Lockable storage area for technology equipment.
15. Consider hiring a part time (20 hr./wk.) staff person for technical support of the library’s network and telecommunications system.
16. Consider having a dedicated computer for paying bills online - saving time and money.

**Evaluation:** This plan will be reviewed annually by the Technology Committee with its accomplishments reported to the Library Board. Committee members will use experience in the business sector to evaluate the plan as well as recommend continued improvements. Staff will work to remain current with trends and issues in library technology through appropriate training, journals, workshops and conferences. Planning technology for the future will require flexibility and the ability to adapt and adjust to technical trends and changes ahead of us. Since technology is constantly evolving, this plan is considered a framework which will guide, but not limit, the library’s use of technology.

## Equipment Inventory

<b>Hardware</b>	<b>Purchase Date</b>	<b>Cost</b>	<b>License Renewal Date</b>
Aerohive AP230 access point	9/15/2017	1 <sup>st</sup> one - free	N/A
4 Lenovo N42-20 Chromebooks	6/16/2017	\$936.92	N/A
4 Dell OptiPlex™ 22 3000 Series All-in-One (3240) Desktop for Staff, Director, Trustees and Catalog stations	7/12/2016	\$2,705.88	N/A
Netgear Nighthawk X4 AC2350 Smart Wi-Fi R7500 router	12/15/2015	\$149	N/A
LaserJet Enterprise M506X	12/7/2015	\$879.64	N/A
HP Pro 4300 All-In-One computer -model B2M57AV - Serial #: MXL3220TDZ	5/28/2013	\$3,078.00	N/A
HP Pro 4300 All-In-One computer -model B2M57AV - Serial #: MXL3220TF0			
HP Pro 4300 All-In-One computer -model B2M57AV - Serial #: MXL3220TF1			
HP Pro 4300 All-In-One computer -model B2M57AV - Serial #: MXL3220TF2			
HP Pro 4300 All-In-One computer -model B2M57AV - Serial #: MXL3220TF3			
HP Pro 4300 All-In-One computer -model B2M57AV - Serial #: MXL3220TF4			
<b>Software</b>			
Norton Small Business 1-Year Subscription for 5 Devices	10/12/2017	\$12	Oct - annually
FileMaker Pro 15 – 2 licenses	11/29/2016	\$420.08	
Microsoft's Office 2016 – 4 licenses from Tech Soup	11/2/2016	\$29	
QuickBooks Premier Editions 2016, 1 User License (Includes Nonprofit Edition)	9/7/2016	\$50	
Faronics Deep Freeze software program – 6	6/18/2013	\$194	Nov - annually



licenses			
<b>Hardware/Software no Longer In Use</b>			
Norton Small Business 1-Year Subscription for 20 Devices	7/15/2016	\$48	
Microsoft's Office 2013 — 9 licenses from Tech Soup	06/18/2013	\$216	
Sage ACT! Pro 2013	12/10/2012	\$35	

When possible, all software is obtained at a discount from TechSoup. The Claverack Library is registered with Tech Soup as a non-profit organization.

When possible, hardware is purchased through the Dell New York State Special Pricing Page via David Baylen's contacts.

The Library HP Customer Number is NO1430.