



# SAILS

LIBRARY  
NETWORK

## FY16-FY18 Technology Plan

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## Mission Statement

**S.A.I.L.S. IS A MULTITYPE CONSORTIUM OF LIBRARIES IN SOUTHEASTERN MASSACHUSETTS. ITS MISSION IS:**

- **TO WORK COOPERATIVELY WITH ITS MEMBERS TO PROMOTE THE COLLECTION AND SHARING OF LIBRARY RESOURCES**
- **TO PROVIDE INNOVATIVE LEADERSHIP**
- **TO ENCOURAGE THE JOINT USE OF TECHNOLOGY**
- **TO SUPPORT ACTIVITIES THAT ENHANCE A MEMBER LIBRARY'S ABILITY TO MEET THE NEEDS OF ITS USERS**
- **TO STRENGTHEN A MEMBER LIBRARY'S PRESENCE IN ITS USER COMMUNITY.**
- **TO PROVIDE DIRECT AND EQUAL ACCESS TO DIVERSE INFORMATION RESOURCES**

## Executive Summary

In 2014 the SAILS Board appointed a Strategic Planning Committee to develop a new five year strategic plan. During the development of this plan it became obvious that the use of technology has permeated every single facet of library service and that member libraries are facing a bewildering arrangement of service options, software and hardware platforms, and increasing patron demand for electronic services. The network's strategic plan provides a roadmap for the types of services that SAILS will need to provide to assist its members, but it doesn't address the technology infrastructure that must be in place nor does it address the types of technology that member libraries hope to be putting in place over the next five years.

The purpose of this Technology Plan is to identify all the key elements that must be in place for SAILS to successfully assist its members use 21<sup>st</sup> century technology tools to serve their patrons and to detail the steps the network needs to take to ensure its members successful implementation of technology.

## Background Information

The SAILS Library Network was formed in 1995 by the Automated Bristol Library Exchange (ABLE) and the South Eastern Automated Libraries (SEAL) networks. Until July 1, 2000 its primary responsibility was to manage two separate Classic Dynix ILS systems, two separate wide area telecommunications networks, the management of three separate non-profit corporations and support a single Internet link for the three separate organizations (ABLE, SEAL, SAILS). The SAILS staff provided technical support for the mainframe computers, telecommunications network, and limited support for desktop devices. SAILS also provided centralized cataloging, notice printing and group purchase opportunities for commonly used supplies.

In 1999 SAILS issued an RFP with the intention of merging ABLE and SEAL onto a single ILS. July 1, 2000 ABLE and SEAL corporations were dissolved and the member libraries migrated to a shared Sirsi Unicorn System.

The equipment types, software support, and training needs of its members have increased in variety and complexity since the consortium was formed in 1995. As a result, the network has developed new service programs and entered into contract negotiations with a variety of service providers. As it has moved towards hosted and cloud based services the network has been able to shift its focus from central site management to member services support.

- The original Sirsi Unicorn system was upgraded to the SirsiDynix Symphony platform. SAILS has now begun taking the first steps towards moving to the Blue Cloud platform.
- The network migrated from Webcat to iBistro to eCatalog and is now supporting the Enterprise Discovery platform.
- In 2002 SAILS licensed the Hyperion archive management package from SirsiDynix. In 2004 the network migrated to an in-house web-based system. In 2012 the network migrated to a hosted Omeka site and by 2015 that site is being harvested by the Massachusetts Digital Commonwealth. The network also contributes scanned documents and books to the Internet Archive.
- Originally SAILS maintained a computer room with 2 ILS servers, an email server, a helpdesk server, a webserver, a server to generate management statistics and reports, a voice notification server, and a file sharing server for network staff. By 2014 the network moved to hosted services for all but the voice notification and file sharing.
- Originally SAILS printed overdue notices and invoices on 3 part mailers or postcards. In 2012 the network ceased printing overdue notices and generates courtesy notices, hold availability notices, and overdue notices via automated voice notification, email, or SMS text messaging
- The SAILS telecommunications network has evolved and improved over 15 years going from copper point to point leased lines to T-1 digital circuits to public Internet lines operating at 50 X 10 (updated 2017).

- The original online catalog contained cataloging records from OCLC. SAILS moved to SkyRiver for MARC cataloging in 2011.
- Over time the network has provided catalog enhancements to improve the user experience – books jackets, summaries, similar titles, titles in a series, and reading level indicators from Accelerated Reader and Lexile reading programs. This content has been provided by 3<sup>rd</sup> party providers and are dynamic links to outside databases rather than data store within the SAILS database.
- Originally SAILS provided libraries with standard transaction based statistics. With the implementation of a SQL based product (Directors Station) SAILS could train libraries to do more in depth data analysis and can also provide customized reports upon request. Before June 30, 2018 SAILS will also be providing libraries the opportunity to import 3<sup>rd</sup> part data in a new data analysis product called Blue Cloud Analytics.
- The SAILS public and staff websites were hosted locally and were in static HTML format. In 2014 they were migrated to a hosted environment and now uses dynamic WordPress architecture.
- In 2005 SAILS entered into an agreement with Overdrive to provide downloadable audiobooks to members of the public. By 2015 that collection has been expanded to include eBooks and downloadable videos. The network also subscribes to Tumblebooks – an eBook collection for young readers for its K-8 members (2017). ~~In 2015 the network began working with the Massachusetts Library System as a participant in the statewide Commonwealth EBook project.~~
- Originally SAILS supported an in-house email system. In 2013 it migrated to Google Apps for non-profits hosted and supported by Google.
- In 2000 the network began offering limited onsite PC support to subscribing libraries. By 2015 the network was providing onsite desktop installation and repair services to 36 libraries with a total of 540 computers.
- In 2004 the network entered into an agreement with Envisionware to provide steeply discounted pricing for public PC reservation and print management software. In 2014 that service was expanded to include pricing for the Envisionware remote and wireless printing solution. Six libraries licensed the Envisionware One-Stop self-check system.
- In 2001 SAILS joined the Massachusetts Virtual Catalog. In 2015 it will become a member of the Commonwealth Catalog based on the Autographics Share-it system using the NCIP protocol to support transactions.
- In 2014 SAILS developed a responsive catalog interface for patrons using a handheld mobile device to search the catalog.
- In 2013 SAILS began to support Bookmyne, an app native to the SirsiDynix ILS. In 2014 it began testing Bookmyne + which is a more customizable version of Bookmyne.
- In the spring of 2015 the network began testing the MobileCirc app which allows staff members to perform basic circulation functions with a handheld computing device.
- In 2013 SAILS contracted with Comprise Technologies to provide a credit card payment portal for subscribing libraries. In 2015 SAILS migrated the subscribing libraries to the

SirsiDynix Blue Cloud Commerce solution with plans to extend this service to all public libraries by December 31, 2015

- In 2014 SAILS migrated to the SALESFORCE cloud based help desk solution after maintaining two separate proprietary systems for more than a decade.



## Current State of Technology

### Server Architecture

The following services are now operating in a hosted or cloud computing model

- ILS
- Patron Discovery Platform
- Data-mining and analysis tool (Directors Station and BlueCloud Analytics)
- Downloadable econtent collections
- Digital archives
- Staff Email
- Network website
- Network calendar
- Help Desk software

The following servers are hosted at the SAILS offices

- Voice notification
- SAILS staff file sharing server

### Telecommunications Network

All telecommunications activity takes place over public Internet lines.

Public libraries have a business class Internet line running at 50 X 10 with a fixed IP address provided by SAILS. SAILS contracts for 46 lines through Comcast and 1 line through Charter.

SAILS provides all telecommunications equipment needed to connect to the Internet line. This consists of a Juniper gigabyte switch, Cisco router, and a Cisco Firewall to support VPN traffic for any site with more than 4 staff computers.

K-12 and academic members connect to the SAILS services using institutional Internet lines connecting via VPN client

ILS and Enterprise traffic is directed to the SirsiDynix data center in Atlanta, Georgia. Staff clients must connect using a VPN connection either through a library firewall or VPN client.

The SAILS office has a Verizon FIOS Line operating at 75X75 (2017)

Voice notification takes place over standard business lines leased from Verizon. This service makes outbound calls only. The service uses 8 telephone lines and offers patrons the option of receiving notices in English, Spanish, or Portuguese.

The Fall River Public Library using Wi-Fi to connect to the SAILS Comcast line for staff computers. All other Wi-Fi traffic runs on institutional lines and is not currently supported by SAILS.

## Desktop Computing

The majority of staff members in SAILS libraries are using wired desktop computers connecting to the ILS via the SAILS Comcast connection. Libraries with a large number of staff computers connect to the SAILS ILS via a local Cisco Firewall which creates the VPN tunnel. Libraries with fewer staff computers connect using a local VPN client. All the K-12 members and academic members connect via VPN client. Libraries reported more than 300 desktop computers in use by staff. There are more than 40 laptops in use by staff.

Public computers are primarily hardwired to either the SAILS Comcast connection or the library's courtesy line. The use of Chromebooks for the public are limited to a few sites. One library is using a Linux based CPU for catalog access – this solution was developed in-house. Libraries reported more than 450 desktop computers for public use, 33 computers dedicated to catalog access, and 68 laptops for public use.

Several public libraries own at least one tablet or ereader for staff use. A few libraries will loan tablets to the public. Many of the K-12 sites are using iPads in the classroom but those haven't been used heavily in the library media center yet.

Printing solutions vary widely. Staff may have access to a shared printer, to a standalone printer or a combination of both. A handful of libraries provide wireless printing to patrons and some allow patrons to submit a print job off site and retrieve the print job at the library.

Several libraries have a central file sharing server for staff use. At least two libraries have in-house servers for more extensive applications.

The two academic members of SAILS loan a variety of computer devices or peripherals to students or faculty. Some of these devices are available for semester loan and some have limited loan periods.

## Desktop Support

SAILS provides direct desktop computer support for 36 locations – 530 individual computers. This support includes on-site assistance, remote diagnostics, a group subscription to anti-virus and Deep Freeze for public libraries, discounts for newly purchased equipment, and spare equipment if a unit needs to be repaired. The academic and K-12 members rely on campus IT support. Three libraries receive support through the city/town IT department. Four libraries have in-house tech support.

## Third Party Products

Self-check – there are 3 different self-check products currently in use by SAILS libraries. The majority of the self-check stations are Envisionware. One library uses the 3M self-check station with a credit card reader to allow patrons to pay fines and bills. Two libraries use the Bibliotheca self-check system with RFID technology and one of those libraries has a small materials handling sorter. A third library will be adding a Bibliotheca self-check RFID system in calendar year 2017.

Public PC Management – The Envisionware PC Reservation system is in place in 30 public libraries.

Print Management - The majority of libraries that use a print management solution use Envisionware but there are other vendors providing this service as well.

Event calendars, museum pass reservations, meeting room reservations – There are several products in use by libraries to perform these functions. Patrons access these services are through the library's individual website. Patron authentication is via SIP2.

EBooks and downloadable audio – The network supported platform for eBooks, downloadable audiobooks, and streaming videos for the public and academic members is Overdrive. This uses a version of SIP2 for patron authentication. Academic members subscribe to several EBook services which use their EZProxy authentication system. A number of libraries subscribe to other content providers such as Hoopla, One Click Digital, Freegal and Freader all of which use SIP2 for patron authentication. Whenever possible SAILS will load a bibliographic record into the catalog with a URL in the 856 tag. The K-12 members subscribe to different eBook services. Authentication is typically not required or if it is, it is done through the campus IT personnel.

Databases – There are many different databases subscribed to by member libraries. The academic members use EZProxy for authentication. Public libraries use SIP2 or IP authentication. A few products allow patrons to create an individual account from which they can access the content.

## Patron Services

Enterprise – ILS native Discovery platform that includes the ability to serve as a library website. Primary site for patrons to look for and request items, view their account, pay outstanding fees and/or fines.

Summon – One academic member uses the Summon platform for their student/faculty discovery platform

Omeka – hosted site providing access to scanned historical documents, images, etc.

Bookmyne – Native mobile app. This app will be replaced with a full featured app that will include the ability to support digital library cards, push notification, links to event calendars, etc. The target completion date for this is June 30, 2018.

Bookletters – Subscription service (paid for by participants) for public libraries used to add content to websites, send out email newsletters, manage subscriptions to new title alerts. This service will be replaced in July 2017 with the Ebsco LibraryAware product.

## Other services

Directors Station – statistical analysis product – web based

BlueCloud Analytics – a more sophisticated data analysis package capability of importing 3<sup>rd</sup> party data for more sophisticated data analysis.

9XX – allows libraries to download on-order records directly into the database without having to use the full acquisitions module. This is available for both Baker & Taylor and Ingram.

MobileCirc – Staff client providing circulation functionality on a handheld device (iOS or Android)

Blue Cloud Cataloging – web based staff client used in 5 K-12 buildings

Blue Cloud Circulation – in development. The target to deploy this product to the K-12 members is June 30, 2018 with the expectation of wider deployment by early 2020.

Blue Cloud Visibility – using Bibframes, this product exposes library catalog data to the major search engines without requiring users to execute a search in the Enterprise Discovery Portal.

SMS Patron Notification – text messaging service for patron alerts of holds and overdues

Telephone Notification – automated telephone notification service to notify patrons of holds and overdues. The existing product is targeted for replacement with a service that supports VOIP for telephone messaging.

## **GOAL 1 – Improve Access to the SAILS ILS for all libraries**

### **Objective 1 – Remove barriers preventing libraries from being able to perform staff functions in a timely fashion**

Action – SAILS staff will participate in all Blue Cloud SPP activities to ensure BlueCloud staff clients are developed to support consortial needs. (ongoing)

Action - Migrate K-12 and small sites to BlueCloud staff client technology when it is proven to work in a consortia environment. (FY17)

Action – Improve staff workflow processes and reports to streamline activities and improve accuracy. (ongoing)

Action – Provide a variety of training opportunities to staff to ensure they are comfortable using the ILS software. (ongoing)







### **Objective 2 – Provide more reliable telecommunications**

Action – Improve the telecommunications line speed for libraries receiving service through SAILS (FY17)

Action – Explore new options for telecommunications providers (FY18)

Action – Upgrade aging telecommunications equipment (ongoing)

### **Evaluation**

-  By June 30, 2017 all K-12 libraries will access SAILS ILS services through a combination of web-based staff client and tablet based applications
-  By June 30, 2018 all member libraries with fewer than 4 staff workstations will access SAILS ILS services through a web-based staff client
-  SAILS will conduct a minimum of 3 training opportunities per quarter dedicated to improving staff competency in using SAILS services.
-  By January 1, 2016 all SAILS telecommunications lines will be upgraded to a minimum of 27X7 bandwidth with a fixed IP address
-  By June 30, 2018 all SAILS telecommunications lines will be upgraded to a minimum of 50 X 50 bandwidth with a fixed IP address
-  By June 30, 2018 all SAILS telecommunications equipment will support the latest bandwidth and communications protocols

## GOAL 2 – Improve User Experience at the library

### Objective 1 – Expand the types of technology available to patrons at the library

Action – Develop and expand a sandbox of technology devices that could be used in a member library (ongoing)

Action – Seek creative and cost effective options that could be used by libraries to provide public computing for their patrons. (ongoing)






Action – Develop current awareness and training programs to ensure staff members are comfortable working with the technology available for their patrons. (ongoing)

### Objective 2 – Ensure member libraries can access information about trends in library technology

Action – Establish and maintain relations with vendors that can meet member libraries' technology needs (ongoing)

Action – Ensure the member libraries are aware of technology trends and are given assistance in evaluating their applicability to their setting (ongoing)

### Evaluation

-  By June 30, 2016 a minimum of three public libraries will be using Chromebooks for public browsing workstations
-  By January 1, 2017 the network will have established the feasibility of using the Chromium operating system to convert older desktop computers to Chromebooks for public computing
-  Conduct a minimum of one current awareness opportunity for member libraries to keep current with technology.
-  By January 1, 2016 have a minimum of 2 sets of technology devices that can be loaned to member licenses.
-  Provide member libraries with a minimum of two opportunities to purchase new technology through a group purchase plan.

## **GOAL 3 – Improve User Experience outside the library**

### **Objective 1 – Enhance the network Discovery Platform to become the single source for patrons to access all of the resources available to them through their library.**

Action - License the SirsiDynix EResource Central product to directly connect patrons from the Enterprise catalog to a variety of electronic content including but not limited to Overdrive, Axis 360, EBL, OneClick Digital. (FY18)

Action – Investigate the possibility of licensing a Discovery service that would include Subject searching and full-text searching for Electronic Databases (FY18)

Action – Fully participate in statewide initiatives to develop a statewide discovery platform (ongoing)





### **Objective 2 – Improve access to SAILS resources for users with handheld mobile devices.**

Action – Provide patrons with a full featured mobile app that includes the ability to link to electronic content and access information specific to their local library (FY18)

### **Objective 3 – Remove barriers preventing patrons from easily accessing content licensed by the network or member libraries.**

Action – Provide enhanced options for patron authentication including but not limited to EZProxy or other standard means of authentication beyond SIP2 or IP authentication. (FY18)

### **Evaluation**

-  By January 1, 2018 successfully implement EResources Central for the common set of Electronic Resource providers used by member libraries.
-  By January 1, 2018 issue an RFI for a product that would enhance the Enterprise Discovery platform to include searching all types of content including licensed databases and full-text articles.
-  By January 1, 2017 issue an RFP for a mobile app that can be customizable by library and include links to electronic content.
-  By June 30, 2018 conduct an evaluation of authentication options available to the entire SAILS network.

## **Goal 4 – Provide member libraries with a variety of computer based tools to measure the success of their service programs**

### **Objective 1 – Provide increasingly more sophisticated reporting capabilities to our members**





Action – Migrate from Directors Station to Analytics Station (FY18)

### **Objective 2 – Provide libraries with tools to evaluate their services**

Action – Support the ability to collect patron opinions on services and future services the library provides.

Action – Support the ability to collect patron recommendations on titles the library should purchase.

### **Evaluation**

-  By June 30, 2017 develop a set of report templates that can be used by libraries in evaluating collections
-  By January 1, 2017 develop a common set of reports distributed to all libraries on a monthly basis that provide in-depth analysis of collection use and customer base
-  Maintain a network wide subscription to a survey/opinion collection tool available for use by any library
-  By January 1, 2018 implement a Recommend to Purchase option in Enterprise.