



Automation Committee Agenda Packet

SAN JOAQUIN VALLEY
LIBRARY SYSTEM
2420 Mariposa Street
Fresno, CA 93721
559-600-6256

March 22, 2023

Tulare Public Library

10:00 a.m.

The next meeting of the SJVLS Automation Committee will be held at:

**Tulare Public Library
475 North M St
Tulare, CA 93274
March 22, 2023, at 10:00 a.m.**

Enclosed are the agenda and prepared attachments for this meeting.

Copies of these materials may be made at the public's expense.

Accessibility and Accommodations: In accordance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the San Joaquin Valley Library System at (559) 600-62xx no later than 10:00 a.m. on Tuesday, March 21, 2023.

Public records: Disclosable public records related to this agenda are available for public review at the Fresno County Public Library, Business Office, located at 2420 Mariposa Street, Fresno, CA 93721, during regular business hours, 8:00 a.m. – 5:00 p.m., Monday through Friday.

AGENDA

A. COUNCIL OPENING

1. Call to Order
2. Introductions
3. Adoption of the Agenda
4. Public Comment – The Public may comment on any items relative to SJVLS and not on the agenda.

B. APPROVAL OF MINUTES OF JANUARY 11, 2023 (ATTACHMENT 1)

C. ITEMS FOR DISCUSSION AND ACTION

1. ACTION: Updating Mobile Phone Type Descriptions in Horizon – Wymer (Attachment 2)
2. ACTION: Standardizing istat Descriptions in Horizon – Wymer (Attachment 3)
3. ACTION: Draft 2023-2026 Technology Plan – Wymer (Attachment 4)
4. DISCUSSION: Palace Project Update – Wymer

D. STAFF REPORTS

1. Senior Network Systems Engineer
2. Associate System Administrator
3. System Administrator

E. CALENDAR ITEMS

1. Set the date and agenda building for the next meeting, tentatively Wednesday, May 24, 2023, online via Microsoft Teams.

F. ANNOUNCEMENTS

1. Committee members can share items relating to collaboration, innovation, and professional development of interest to the Committee.

G. ADJOURNMENT



SAN JOAQUIN VALLEY LIBRARY SYSTEM

Automation Committee Meeting

January 11, 2023

DRAFT MINUTES

A. CALL TO ORDER

1. The meeting was called to order at 10:00 a.m. by Chris Wymer

B. ROLL CALL AND INTRODUCTIONS

1. Roll call was conducted.
 - i. PRESENT
 1. Yvonne Galvan (Coalinga-Huron), Tiffany Polfer (Fresno), Kristie Pratt (Kern), Matt Johnson (Mariposa), Sarah McIntyre (Madera), Anthony Arellano (Porterville), Heidi Clark (Tulare City), Chris Wymer (Chair)
 - ii. EXCUSED
 1. Brian Martin (Kings), Smruti Deshpande (Merced), Faythe Arredondo (Tulare County)
 - iii. OTHERS PRESENT
 1. Kevin Nelson (SJVLS), Aaron Lusk (SJVLS), Logic Vang (SJVLS), Mike Drake (SJVLS), Mark Lewis (Kern), Daniel Brunk (Kings), Marisol Rodriguez (Tulare County)

C. ADOPTION OF THE AGENDA

1. Clark (Tulare City) motioned to adopt the agenda.
 - i. Polfer (Fresno) seconded the motion.
 - ii. The motion passed.

D. PUBLIC COMMENT

1. There were no comments from the public.

E. APPROVAL OF PREVIOUS MEETING MINUTES

1. Clark (Tulare City) motioned to adopt the minutes as distributed.
 - i. Pratt (Kern) seconded the motion.
 - ii. The motion passed.

F. PROJECTS FOR DISCUSSION AND ACTION

1. Decouple HIP and Horizon – Wymer
 - i. Wymer updated the committee on decoupling Horizon and HIP. Currently, requests placed in Horizon are routed through HIP before

being written to the database. This used to be important when patrons used HIP to search the catalog and place requests but is no longer necessary with the transition to Enterprise and Web Services. His intention was to move forward with decoupling Horizon from HIP but discovered there is a bug where SMS notices are not sent when Horizon and HIP are decoupled. SirsiDynix support's advice was to wait until the next version of Horizon is released before moving forward with decoupling.

- ii. Wymer also asked committee members if they can double check if their acquisitions department utilizes the Vendor Information Portal feature in Horizon, because VIP doesn't work when HIP is decoupled.
 1. Pratt (Kern) motioned to wait to decouple HIP until the next Horizon upgrade is completed.
 2. McIntrye (Madera) seconded.
 - a. The motion passed.
2. Reset my PIN in Enterprise – Wymer
 - i. Wymer updated the committee on recent changes to Reset my PIN in Enterprise. The process allows patrons with an email address in their borrower record to reset their PIN through email, without having to contact the library.
 - ii. Previously, the feature only sent emails using the English reset my PIN email template, even if the patron was viewing Enterprise in Spanish. A recent update fixed this bug and reset my PIN emails are sent based on the current Enterprise language setting. This allows us to define a Spanish template and communicate with patrons in the language of their choosing.
 - iii. Wymer informed the committee that currently, 8 of the 10 SJVLS libraries have enabled the feature and mentioned that the other 2 could be enabled with a simple work order.
 3. Reviewing Messages and Notices – Wymer
 - i. Wymer asked the committee to review their notices and message language to make sure it's up-to-date and accurate. There are still a few COVID-related messages scattered through Enterprise and the mobile app, and he'd like to make sure everything shared with patrons is accurate.
 4. BC Analytics Upgrade to MicroStrategy 2021 – Wymer
 - i. Wymer informed the committee that SirsiDynix will be performing maintenance on BC Central and BC Analytics on January 21. They will be upgrading the servers, including updating Analytics to use a more recent version of MicroStrategy. Wymer will provide the committee members with more information about the changes and new features coming to Analytics.

G. STAFF REPORTS

1. Senior Systems Network Engineer
 - i. Nelson informed the committee that SJVLS is nearing the end of our e-rate audits, which means we should start receiving funding on our pending applications.

- ii. Nelson also informed the committee that the end of e-rate audits means we're preparing to re-submit the State Broadband grant application to update broadband equipment throughout the system.
 - iii. Nelson's final update was that SJVLS is still waiting to receive the Year 8 bids from CENIC.
 2. Associate System Administrator
 - i. Drake informed the committee that he has been exploring the Google Analytics reporting tool as a means of analyzing usage of Enterprise. Any member that is interested in viewing an analyzing catalog usage can reach out to him to get a report created.
 3. System Administrator
 - i. Wymer updated the committee on the status of the modifications to the Brown Act, California's COVID State of Emergency, and the ability to meet virtually. California's State of Emergency ends at the end of February, which means the committee has to go back to either meeting in-person, or meeting under the pre-COVID teleconference rules. As a result, he scheduled the next meeting in-person in March.
 - ii. Wymer informed the committee that he spent the end of December reviewing Enterprise and cleaning up the user interface. He discovered that Digital Catalog searches weren't using the "collapsed facets" widget that the Library Search uses. He also cleaned up some styles to maintain consistency between different search views.
 - iii. Wymer informed the committee that SJVLS was awarded the eBooks for All collection development grant. SJVLS will receive \$50,000 from the State Library and match it with \$10,000 from Online Materials.
 - iv. Wymer spent some time in December training Tulare Public's new JSA on Horizon.
 - v. Wymer informed the committee that the Library Card Order form will open at the beginning of March and the order will be placed in April.

H. CALENDAR ITEMS

1. Date and location for next Automation Committee Meeting
 - i. March 22, 2023, at 10:00 am at the Tulare Public Library.

I. ANNOUNCEMENTS

1. Clark shared the Tulare Public Library filled their two open positions and are nearly fully staffed and moving in the right direction again.
2. McIntyre shared that Madera is also fully staffed again, with their Oakhurst vacancy being filled.

J. ADJOURNMENT

1. There being no further business to discuss the meeting adjourned at 10:46 a.m.

DATE: March 22, 2023
TO: Automation Committee
SUBMITTED BY: Chris Wymer – Administrative Librarian
SUBJECT: Updating Mobile Phone Type Descriptions in Horizon

RECOMMENDED ACTION:

1. Update the description for mobile phone types in Horizon to the proposed descriptions listed under discussion.

Approval of the recommended action will establish easier to understand descriptions for mobile phone types and SMS notifications so staff can set the correct phone type for patrons.

ALTERNATIVE ACTION(S):

Alternatively, the committee could choose to leave the current mobile phone type subscriptions in place. The committee could suggestion an alternative description that clarifies the types of notices sent by each phone type.

FISCAL IMPACT:

There is no fiscal impact associated with this action.

DISCUSSION:

Kern County requested a change to the current descriptions for mobile phone types in Horizon to make it easier for staff to understand what notices are sent from each option. The current description for no phone notices implies that SMS messages will not be sent either. This is the current description text for each type:

Phone Type	Description
m	Mobile, with telephone notices SMS
m-no	mobile, No telephone notices SMS

Kern has proposed this modification to make it clearer that m-no phone types can receive SMS notifications:

Phone Type	Description
m	Mobile, SMS capable with phone notices
m-no	Mobile, SMS capable, NO phone notice

Motion:

Second:

_____ PASSED

_____ REJECTED

DATE: March 22, 2023

TO: Automation Committee

SUBMITTED BY: Chris Wymer – Administrative Librarian

SUBJECT: Standardizing istat Descriptions in Horizon

RECOMMENDED ACTION:

1. Adopt a controlled vocabulary for istat descriptions within Horizon to standardize terms for audience, material formats, and languages.

Approval of the recommended action will establish a shared controlled vocabulary for istat descriptions within Horizon.

ALTERNATIVE ACTION(S):

Leave the istat descriptions the way they currently are in Horizon.

FISCAL IMPACT:

Approval of the recommended action will not change membership dues or modify SJVLS's budget.

DISCUSSION:

Horizon tracks a variety of circulation statistics to allow libraries to report on usage of their collections. Horizon tracks usage of related and specific collections by accumulating statistics based on the "istat" associated with the collection code of the material being checked out. These statistics allow libraries to view what types of materials are being used by their patrons, and to report usage of children's and non-English language materials in their Annual Report to the State Library. As a result of resource sharing within SJVLS, each member's usage stats contain istats for usage of other member's materials. Differences in describing materials makes it challenging to group related istat codes together.

SJVLS is proposing creating a controlled vocabulary for istat descriptions to make it easier for members to associated related istats together for reporting purposes. The controlled vocabulary would apply to the following parts of istat descriptions:

- Jurisdiction name
- Audience (Adult, Young Adult, Children)
- Format (audiobooks, movies and TV shows, large print)
- Language (especially non-English materials)

Questions for consideration:

- How do we want to enter jurisdictions? Full name, or abbreviation? In caps, or just first letter capitalized?
 - Example (Coalinga-Huron): CO or Coalinga or COALINGA
- How do we want to enter audiences?
 - Adult Materials
 - Adult somewhere in the description? Or left out entirely? Case-by-case?

- Young Adult Materials
 - YA
 - Young Adult
 - Youth
 - Teen
- Juvenile Materials
 - J
 - Juv
 - Juvie
 - Juvenile
 - Child
 - Childrens
- How do we want to enter different formats?
 - Audiobooks
 - Book on CD
 - Books on CD
 - BK on CD
 - Audiobooks
 - Book on Compact Disc
 - Movies and TV Shows
 - DVD, Blu-Ray, and DVD & Blu-Ray Combos
 - DVD, Blu-Ray, and DVD & Blu-Ray Sets
 - Videos
 - Digital Versatile Disc, Blu-Ray
 - Music
 - Music CDs
 - CDs
 - Compact Discs
 - Large Print
 - Large Print
 - Large Type
- How do we want to note Language?
 - Full name of language
 - Abbreviations
- Do we want to have a standard order for descriptions? Something like:
 - {JURISDICTION} {AUDIENCE} {LANGUAGE – if applicable} {FORMAT} {ANY OTHER DESCRIPTION}
 - {JURISDICTION} {AUDIENCE} {FORMAT} {ANY OTHER DESCRIPTION} {LANGUAGE – if applicable}
 - {JURISDICTION} {LANGUAGE – if applicable} {AUDIENCE} {FORMAT} {ANY OTHER DESCRIPTION}

Motion:

Second:

_____ PASSED

_____ REJECTED

DATE: March 22, 2023
TO: Automation Committee
SUBMITTED BY: Chris Wymer – Administrative Librarian
SUBJECT: Draft 2023-2026 Technology Plan

RECOMMENDED ACTION:

1. Approve a recommendation to SJVLS's Administrative Council to adopt the draft Technology Plan.

Approval of the recommended action will authorize the Administrative Librarian to present the draft Technology Plan to the Administrative Council for their consideration and approval.

ALTERNATIVE ACTION(S):

Alternatively, the committee can recommend modifications to the draft plan. The Administrative Librarian would return at the next meeting with an updated draft for consideration.

FISCAL IMPACT:

Approval of the recommended action will not have an immediate fiscal impact on membership dues or the SJVLS budget. Funds were previously set aside in Assigned Fund Balance to support the Technology Plan. Administrative Council approval will authorize SJVLS staff to implement the projects listed in the plan, using the funding in Assigned Fund Balance.

DISCUSSION:

While an approved Technology Plan has not been a requirement to apply for e-rate discounts since 2013, long range technology planning is beneficial to SJVLS. The draft 2023-2026 Technology Plan outlines 5 strategic technology goals that were identified at the November 15, 2022, Planning Summit.

Those goals identified are:

1. Modernize SJVLS Server and Network Infrastructure
2. Streamline eContent Offerings
3. Improve Patron-facing Network Infrastructure
4. Establish More Working Groups
5. Continue to Pursue Funding Opportunities for Network Infrastructure

At the September 2020 Administrative Council meeting, the Council authorized designating \$2 million of unrestricted fund balance to support the implementation of the Technology Plan. The attached draft outlines projects and objectives to meet those goals utilizing the designated funding.

PRIOR AGENDA REFERENCE:

Administrative Council Agenda Packet – Attachment 7 – September 25, 2020
Technology Planning Summit – November 15, 2022

ATTACHMENTS INCLUDED AND/OR ON FILE:

Draft 2023-2026 Technology Plan

Motion:

Second:

_____ PASSED

_____ REJECTED



SAN JOAQUIN VALLEY LIBRARY SYSTEM

**Technology Plan 2023-2026
DRAFT**

Background

The San Joaquin Valley Library System (SJVLS) supports the technology needs of its members through the operation of a shared network and automation services such as: email, internet access and filtering, a shared eContent platform, and the Integrated Library System (ILS).

The SJVLS system office works in partnership with staff of member libraries to promote the effective use of technology in libraries. SJVLS staff are divided into two functional groups: network staff and ILS staff. System office staff provide guidance on and coordination of:

- Technology-related purchases
- Hardware and Software setup
- Troubleshooting assistance
- Education and Training of local staff

These are the members of SJVLS:

- Coalinga-Huron Library District
- Fresno County Library
- Kern County Library
- Kings County Library
- Madera County Library
- Mariposa County Library
- Merced County Library
- Porterville City Library
- Tulare County Library
- Tulare Public Library

It has been several years since SJVLS conducted a planning process and updated our Technology Plan. Previously, SJVLS would review and update its Technology Plan every three years, as a requirement to continue receiving E-Rate discounts on telecommunication services and equipment. As of Funding Year 2015, the Universal Service Administration Company (USAC) no longer requires applicants to submit an approved Technology Plan to apply for discounts. While an approved Technology Plan is no longer a requirement of USAC, the planning process and resulting plan are beneficial to SJVLS and act as a roadmap to guide staff work.

Technology Planning Process

The planning process for the current Technology plan included a review of the previous Technology Plan, surveys of member library staff, and a planning summit where member library and System Office staff were able to discuss priorities and goals for the new plan to address anticipated needs over the next three years. The plan will be reviewed by the SJVLS Automation Committee and approved by the SJVLS Administrative Council. The Technology Plan serves as the basis for development of the technology and automation portions of the annual System budget.

I. MISSION STATEMENT AND GOALS

Mission Statement: "Transforming communities through shared resources and member connections." (Adopted in 2018-2021 Strategic Plan)

Goals:

- Share resources, promote networking, and nurture professional relationships.
- Encourage and support innovation and technology.
- Promote SJVLS and improve collective strength.
- Improve Governance.

II. CURRENT TECHNOLOGY OVERVIEW

SJVLS provides technology-based services to all its members. However, the level of participation among the members varies, and support for technology is shared between member libraries and the System. SJVLS currently offers members the following network services: internet content filtering for CIPA compliance, antivirus protection, distributed file servers, backup services, exchange email, spam blocking, managed Wi-Fi service, PC auditing and inventory management.

System Office Staffing/Support

The System Office includes the following positions who support technology programs:

- 1.0 FTE SJVLS Administrative Librarian who guides and coordinates the efforts of the System Office staff to implement direction from the Administrative Council.
- 1.0 FTE A Supervising Librarian who is System Administrator for the shared ILS system, and its associated support services. This position is currently vacant.
- 1.0 FTE Librarian III assists with ILS management. This position also provides oversight for PC auditing and inventory management.
- 1.0 FTE Librarian III manages SJVLS website development, intranet support, oversees shared electronic resources, manages electronic resource authentication through EZProxy, and oversees the shared digital collections and digitized resources.
- 1.0 FTE Senior Network Engineer who plans and coordinates network development, implementation and expansion.
- 2.0 FTE Network Support Engineers who assist with configuration and support of network equipment, servers, and related hardware. This position also provides PC support and troubleshooting for member libraries, including imaging of PCs, configuration of software such as PC reservation and print management.

Member libraries also have their own support on site. On-site support varies from full tech support departments to a single support technician, or to other staff with a portion of their time assigned as tech support. System Office staff serve in both a teacher role as well as a support role, especially with the smaller jurisdictions.

Telecommunications Network

SJVLS operates a wide area network (WAN), connecting our member library branches to their headquarters, the headquarters back to the data center in Fresno, and to other member library headquarters to provide backup connections in the event of a local fiber outage. As of March 2023, 105 of 106-member library locations are connected to SJVLS's WAN. At this time, only Porterville lacks a direct connection, and is in the process of being reconnected.

Over the last 10 years, SJVLS has been working to migrate our member libraries from the previous AT&T network to CENIC's state-wide educational network. Presently, 96 locations have been migrated to CENIC, and 9 locations remain on the legacy network. We are currently working with CENIC to connect Porterville's new location. SJVLS has signed agreements with CENIC and service providers to migrate 8 of the 9 locations on the legacy network to CENIC's network. At this time the only location that is not scheduled to migrate to CENIC is Mariposa's branch in Yosemite National Park.

Fresno and Kern County headquarters are our first 10 Gbps locations, and all other headquarters are connected at 1 Gbps except for Mariposa, who is limited to 100 Mbps. Each headquarters has a Fortinet firewall, and has a connection to the internet, except for Mariposa, who has to traverse through Madera or Merced County first. System Office staff monitor and oversee the firewall configuration. Nearly all CENIC locations have 100 Mbps connections, with a few as fast as 1 Gbps. While some locations are still connected at 10 Mbps, SJVLS has signed agreements to increase those locations to at least 100 Mbps as a part of our Year 8 and Year 9 amendments. See Appendix A for bandwidth by location.

Internet content filtering is provided through a Fortinet firewall at each member's headquarters. These appliances are managed by System staff based on the requirements of each jurisdiction and the requirements outlined in the Children's Internet Protection Act (CIPA), as required to receive e-rate discounts.

Installation of building data cabling is coordinated through the System Office but is the responsibility of the member library. At the member's request, SJVLS will apply for e-rate Category 2 funding for cabling upgrades. The current system standard is Cat5, but Cat6 is encouraged for all new construction, remodel, or renovation projects.

Installation of wireless service for public access has accelerated with the migration of locations to the CENIC network. Currently, 72 locations offer Wi-Fi access to patrons, and System staff are working to secure grant funding to install Wi-Fi services at the remaining 22 CENIC branches. As the locations still on the legacy network migrate to CENIC, SJVLS will also work to install Wi-Fi as a part of the migration.

Computer Network

The System runs a Windows Server 2012 Active Directory network; all computers are joined to the domain; and all staff members have user accounts. The System manages the no-cost Office365 subscription, which provides member library staff with Office productivity software. DFS based file servers support users for system-wide file sharing and sharing within the library jurisdiction. Some members have local DFS servers that replicate with servers located in the Data Center. Some members utilize SharePoint to provide an intranet for library staff.

Applications Support

Web Site Hosting: SJVLS operates its own web server, which hosts the System website. The System also hosts the web server for the Historic Photographs collection. Previously, SJVLS also hosted the Heartland Regional Library Network web site, and web sites for eight of our ten member libraries, but was discontinued. A web design librarian continues to manage the design, maintenance, and compliance with accessibility standards. In 2019 the web site was migrated to a new server and version of Drupal. SJVLS is currently in the process of updating the Omeka server used to digitize historic images and documents.

Email: A Microsoft Exchange server provides Internet e-mail services to all member libraries. The current configuration supports mail groups for committees, functional groups within SJVLS and/or member library staff, email notices for patrons about library material, and email checkout receipts. Our Office365 subscription provides email spam filters to block spam and malicious email messages.

Library Automation: A shared ILS, SirsiDynix Horizon, supports library functions such as cataloging, circulation, acquisitions, and serials at all locations. The public interface is a web-

based catalog with enhanced content such as book cover images and reviews. Through the shared Horizon system, library users are able to easily request materials from any public library in the seven-county area. Notifications are provided through the following means: mail, email, phone calls, or SMS text messages. A staff member is designated as primary support for Horizon in each member jurisdiction, and this jurisdictional system administrator is trained by SJVLS staff to provide first level support.

Shared Electronic Resources: The System coordinates shared electronic resource purchases – such as the Gale General Database Package and CloudLibrary eBook platform – and provides support for access by home users through EZProxy. Purchasing for CloudLibrary is shared by members of the Electronic Resources Committee. Electronic resource vendors provide training on the use of their products through the electronic resources committee so that staff are better able to assist the public with database use.

PC Support – Hardware: Most members purchase PCs and peripherals through the System in order to take advantage of volume discounts and ensure equipment meets System standards. The System places bulk orders twice a year, once in the Fall and again in the Spring. Purchasing PCs and peripherals through the System office ensures System staff will be able to assist with troubleshooting any issues that arise with hardware. Peripherals are purchased on an as-needed basis.

PC Support – Software: The System Office facilitates the purchase of selected computer software used by all members. This includes Symantec Antivirus Enterprise Edition. Antivirus protection for all PCs is purchased and coordinated centrally to ensure that PCs on the network are protected. The System Office also oversees the free Office365 subscription, which allows the suite of Microsoft Office products to be installed for free on all staff PCs. Member libraries are encouraged to use TechSoup to acquire Microsoft licenses for use on PCs used by the public.

Network Management: Trackit! software is in use throughout the system to provide real-time PC software and hardware auditing for software license compliance, network planning, technology inventory and replacement planning information. The help desk features of Trackit! provide efficiencies in reporting and tracking trouble tickets.

Management of public use computers is supported through recommended configurations, imaging of new PCs, consultation with local technical support personnel, and directly provided technical support. System members work with SJVLS staff to create a locked-down public PC profile. The purpose is to ensure the security of computer hardware and the network. When special configurations are required, System staff work with local staff to implement the customization. Recently, System staff implemented a new service for public PCs that allows patrons to save files locally during their PC session. A special script purges the local files when the user logs off and prepares the PC for the next session.

Print management services are provided through a system-wide purchase of Envisionware's LPT:One software, which is in use at most locations. SJVLS also purchases Envisionware's PC reservation software for use by the members, with support by the System Office. Currently, there is a need for a mobile printing solution to allow patrons to print items from their mobile devices on library printers.

Training: SJVLS is working to improve system-wide training. System office staff need to survey members to gain an understanding of the training topics are of interest to staff. Specialized

training is being sought for system staff, which can then share new skills with member libraries. Areas of interest include software, hardware and network support.

III. TECHNOLOGY-BASED GOALS AND OBJECTIVES

The goals and objectives listed here are specific to the technology needs of SJVLS. SJVLS's full goals and objectives are set forth in our Strategic Plan, which is currently undergoing revision. The 2018-2021 plan can be found at: https://www.sjvls.org/sites/default/files/2019-09/goals_objectives_18-20.pdf

Strategic Technology Goal #1: Modernize SJVLS Server and Network Infrastructure

With the vast majority of library services dependent on network connectivity to shared servers and the internet, a robust network is essential to internal library operations and the provision of modern library services. SJVLS's efforts to establish a WAN by migrating library branches to the CENIC network has alleviated the strain on the demand for bandwidth at most of our member libraries. Now that bandwidth needs are mostly satisfied, System staff have identified the need to focus on connecting the remaining locations to CENIC and upgrading internal server and network infrastructure before current systems reach end-of-life.

- Objective #1: Provide current network equipment capable of supporting local and system needs.
 - Project 1.1.1. Implement and sustain a replacement cycle for routers and switches utilizing the end-of-life or end-of-maintenance dates from the vendors.
 - Project 1.1.2. Upgrade all servers to Windows Server 2022 or 2019. Purchase an appropriate amount of Client Access Licenses (CALs) and software assurance to allow for future upgrades.
 - Project 1.1.3. Replace DFS servers that are currently deployed at member HQs and investigate options for deploying a DFS server to all HQs.
 - Project 1.1.4. Maintain currently supported versions on systems. Example: Fortinet, VMWare, Windows & Linux.
- Objective #2: Develop a disaster recovery plan to ensure continuity in case of a local or regional disaster. This plan should include backup, network, and application redundancy and should be robust enough to allow the network to survive unforeseen issues as well.
 - Project 1.2.1. Identify potential points of failure that could impact the data center and/or library branch operations in the event of a disaster.
 - Project 1.2.2. Work with member libraries to develop procedures to respond to ensure continuity of service in the event of disasters.
 - Project 1.2.3. Provide training and resources for local staff about how to enact the procedures.
- Objective #3: Migrate Horizon ILS to MSSQL database and server.
 - Project 1.3.1. Engage SirsiDynix staff to begin the migration process and have a project manager assigned.
 - Project 1.3.2. Determine server OS requirements including OS version, and minimum CPU, storage, and RAM, and purchase any necessary licenses.
 - Project 1.3.3. Document and update custom Horizon processes so they'll continue to function after the migration.

- Project 1.3.4. Provide training and documentation to JSAs and local tech contacts regarding the migration and changes to their normal workflows in Horizon.
- Project 1.3.5. Set up the new Horizon database and perform testing.
- Project 1.3.6. Put the new database and server into production.

Strategic Technology Goal #2: Streamline eContent Offerings

The proliferation of freely available information online and efficient means for searching and retrieving information through search engines like Google has changed patron's approaches to locating information online. These changes have resulted in less usage of general-purpose databases to locate information. At the same time, online streaming media has grown in popularity and libraries are seeing an increased demand for access to streaming resources. At this time, it would be beneficial for the System to analyze our current eContent offerings and make sure they align with our patron's interests and needs.

- Objective #1: Offer a variety of resources in different eContent formats.
 - Project 2.1.1. Survey patrons to determine the most popular eContent formats among users and prioritize offering those formats.
 - Project 2.1.2. Survey member libraries to determine resources that are currently offered by some member libraries that could be beneficial to offer as a consortium subscription.
 - Project 2.1.3. Monitor trends in eContent formats and adjust offerings as needed.
- Objective #2: Work with vendors to provide access to new eContent offerings and negotiate favorable pricing and licensing terms.
 - Project 2.2.1. Communicate with vendors to stay aware of new resources and eContent formats.
 - Project 2.2.2. Secure favorable pricing and/or licensing terms through consortium purchasing.
- Objective #3: Assess and update eContent offerings to determine if they meet patron needs and interests.
 - Project 2.3.1. Request input from patrons through surveys or other methods and use this feedback to make updates and changes to offerings as needed.
 - Project 2.3.2. Review usage data and analytics to identify popular and unpopular eContent offerings and adjust offerings as needed.

Strategic Technology Goal #3: Improve Patron-facing Network Infrastructure

Many modern library services are dependent on the ability to connect to shared resources and the internet, therefore robust access methods are essential to engage with our patrons. The proliferation of digital services has changed patron expectations, and it is important that patron-facing infrastructure meets those expectations. Print capability is a typical service at public libraries, but for mobile users it comes with associated problems such as support of patrons while printing, maintenance of printers, paper waste by patrons who print and never pick up their documents, and the time staff spend collecting money from patrons who are paying for prints.

- Objective #1: Add or improve Wi-Fi at member library branches.
 - Project 3.1.1. Work to leverage state grants and E-rate category-2 to upgrade our wireless network to include all branches as well as add external Wi-Fi coverage.

- Project 3.1.2. Engage SPURR and AMS to build a project to include equipment and installation of new network wiring to upgrade unserved or underserved locations.
- Objective #2: Investigate options to implement mobile printing at library branches.
 - Project 3.2.1. Investigate patron mobile printing solutions that leverage cloud services as well as on premises software server solutions while keeping costs under control.
 - Project 3.2.2. Proposed solutions therefore must be robust, scalable, simple to use, non-intrusive, and secure for the end user.
- Objective #3: Investigate options for sending modern emails for library notices and marketing materials to promote services and programs.
 - Project 3.3.1. Explore options for sending modern emails to patrons, locate vendors that offer the service and make sure it integrates with Horizon.
 - Project 3.3.2. Provide training and resources for member library staff to manage and configure their emails and email templates to maximize the value from the service.

Strategic Technology Goal #4: Establish More Working Groups

SJVLS used to support a larger number of functional groups dedicated to different aspects of library service, however, those groups were disbanded or discontinued as a result of declining budgets and lack of staff time to participate. As a result, SJVLS committees currently are limited to the Automation Committee that oversees the ILS, the Electronic Resources Committee that oversees the procurement and management of systemwide electronic resources, and the Administrative Council that is the governing body of the System. Effective library service goes beyond those groups, and System staff should play a larger role in building and encouraging cooperation among member library staff to share knowledge, experiences, and best practices.

- Objective #1: Work with Admin Council to identify potential working groups within the system.
 - Project 4.1.1. Identify areas of shared interest among the members.
 - Project 4.1.2. Establish shared online spaces for member library staff to collaborate, ask questions, and share useful resources.
 - Project 4.1.3. Explore the possibility of coordinating and hosting trainings and meetings for member library staff with outside vendors and each other to share knowledge and best practices.

Strategic Technology Goal #5: Continue to Pursue Funding Opportunities for Network Infrastructure

Library jurisdictions need support to meet California's broadband standards and provide modern services to our patrons. Many of SJVLS's member libraries are in rural, underserved communities with limited access to broadband. In those locations, the library plays an important role in providing connectivity to the community. Recently, Federal and State agencies acknowledged the need to make funding available to improve connectivity in historically rural and underserved regions and created funding opportunities to improve access to broadband in these areas. The System recognizes the importance and utility of leveraging these funding opportunities to improve access to broadband within our service area and will work to pursue funding where practical.

- Objective #1: Seek out grant opportunities for connectivity and equipment support in addition to E-Rate funding.
 - Project 5.1.1. Work with the state library to leverage grants to support and expand connectivity through network equipment, circuit connection costs, and related programs.
 - Project 5.1.2. Work with member libraries to identify potential community partners, non-Governmental Organizations, and anchor institutions to collaborate on opportunities to fund broadband and other network services in underserved and hard to reach communities.
 - Project 5.1.3. Investigate state and federally funded grants and statewide initiatives with partners offering further resources for broadband installation and upgrades.
- Objective #2: Engage a contract grant writer to research and apply for funding opportunities for libraries and consortia.
 - Project 5.2.1. Work with a grant writer to identify goals and funding necessary to carry them out and focus on grants to succeed.
 - Project 5.2.2. Manage the grant timetables and requirements to ensure compliance with expectations.

IV. REVIEW AND EVALUATION

The Technology Plan and Strategic Plan are informally reviewed annually as a part of the budget development and CLSA Plan of Service processes. Based on available funding, anticipated staffing levels, and emerging priorities, specific projects identified in both plans are implemented, deferred, or set aside as no longer needed or not feasible in the foreseeable future.

Effectiveness of each project is assessed as appropriate through staff or public feedback, either directly to System staff or through member library customer feedback channels. Special projects and grant-funded initiatives have their own separate evaluation channels.

V. BUDGET

Annually, the System develops its budget for the following fiscal year. In practice, the full costs of anticipated services and purchases are budgeted, including the un-discounted cost of all telecommunications services. However, in some years, the full amount for telecommunications has been reduced to help keep the budget in balance. Savings in telecommunications costs from the e-rate program and California Teleconnect Fund contribute to a fund balance which is used to fund replacement of equipment, telecommunications services, and other services the following year. Allocation of the fund balance to various programs depends on the health of local library budgets and the priorities developed during the funding process. Each member library also maintains a Tech Reserve Fund to support the cost of replacement of system-owned servers and network equipment, local PCs and peripherals, software upgrades, and annual license and software maintenance costs.

At the September 25, 2020, Administrative Council meeting, SJVLS's Administrative Council approved the establishment of an Assigned Fund Balance with the specific purpose of supporting System Contingency Reserves for this Technology Plan. This action assigned \$2 million of SJVLS's unrestricted Fund Balance of \$4,682,176 and assigned \$800,000 from Member's Committed Tech Reserves for a total funding amount of \$2,800,000. **Appendix B –**

Assessment and Replacement Plan Cycle provides detailed descriptions of the estimated expenses and funding sources to support the technology goals outlined in this plan.

APPENDIX A – BANDWIDTH BY LOCATION

BRANCH NAME	CITY	CURRENT BANDWIDTH	CARRIER	SJVL Wi-Fi
Coalinga District HQ	Coalinga	1 Gbps	AT&T	
Huron Branch	Huron	100 Mbps	AT&T	X
Fresno HQ	Fresno	10 Gbps	AT&T	X
Auberry Branch	Auberry	1.5 Mbps	AT&T Calnet 3	X
Bear Mountain Branch	Squaw Valley	100 Mbps	GeoLinks	X
Betty Rodriguez Branch	Fresno	1 Gbps	AT&T	
Big Creek Branch	Big Creek	1.5 Mbps	AT&T Calnet 3	X
Caruthers Branch	Caruthers	100 Mbps	AT&T	X
Clovis Branch	Clovis	1 Gbps	AT&T	
Easton Branch	Easton	100 Mbps	AT&T	X
Fig Garden Branch	Fresno	1 Gbps	AT&T	
Firebaugh Branch	Firebaugh	1 Gbps	Comcast	X
Fowler Branch	Fowler	100 Mbps	AT&T	X
Gillis Branch	Fresno	100 Mbps	AT&T	X
Kerman Branch	Kerman	1 Gbps	AT&T	
Kingsburg Branch	Kingsburg	100 Mbps	AT&T	
Laton Branch	Laton	100 Mbps	AT&T	X
Mendota Branch	Mendota	100 Mbps	AT&T	X
Mosqueda Center Branch	Fresno	100 Mbps	AT&T	
Orange Cove Branch	Orange Cove	100 Mbps	AT&T	X
Parlier Branch	Parlier	100 Mbps	AT&T	X
Piedra Branch	Sanger	100 Mbps	GeoLinks	X
Pinedale Branch	Pinedale	100 Mbps	AT&T	
Politi Branch	Fresno	100 Mbps	Vast	X
Reedley Branch	Reedley	1 Gbps	Comcast	X
Riverdale Branch	Riverdale	100 Mbps	AT&T	
San Joaquin Branch	San Joaquin	1 Gbps	Comcast	
Sanger Branch	Sanger	100 Mbps	AT&T	
Selma Branch	Selma	100 Mbps	AT&T	
Shaver Lake Branch	Shaver Lake	1.5 Mbps	AT&T Calnet 3	X
Sunnyside Branch	Fresno	1 Gbps	AT&T	
Talking Book Branch	Fresno	100 Mbps	AT&T	
Teague Branch	Fresno	100 Mbps	AT&T	X
Tranquillity Branch	Tranquillity	100 Mbps	Comcast	X
West Fresno Branch	Fresno	100 Mbps	AT&T	X
Woodward Park Branch	Fresno	1 Gbps	AT&T	
Beale Memorial HQ	Bakersfield	10 Gbps	AT&T	X
Arvin Branch	Arvin	100 Mbps	AT&T	
Baker Street Branch	Bakersfield	100 Mbps	AT&T	

Boron Branch	Boron	1.5 Mbps	AT&T Calnet 3	X
Buttonwillow Branch	Buttonwillow	1.5 Mbps	AT&T Calnet 3	X
California City Branch	California City	1 Gbps	Frontier	X
Delano Branch	Delano	100 Mbps	AT&T	
Frazier Park Branch	Frazier Park	100 Mbps	AT&T	X
Holloway-Gonzales Branch	Bakersfield	100 Mbps	AT&T	X
Kern River Valley Branch	Lake Isabella	100 Mbps	GeoLinks	X
Lamont Branch	Lamont	100 Mbps	AT&T	
McFarland Branch	McFarland	100 Mbps	AT&T	
Mojave Branch	Mojave	1 Gbps	AT&T	X
Northeast Branch	Bakersfield	10 Mbps	AT&T	
Rathbun Branch	Bakersfield	100 Mbps	AT&T	
Ridgecrest Branch	Ridgecrest	1 Gbps	Frontier	X
Southwest Branch	Bakersfield	100 Mbps	AT&T	
Taft Branch	Taft	1 Gbps	Spectrum	X
Tehachapi Branch	Tehachapi	100 Mbps	AT&T	X
Wanda Kirk Branch	Rosamond	100 Mbps	AT&T	
Wasco Branch	Wasco	100 Mbps	AT&T	
Wilson Branch	Bakersfield	100 Mbps	AT&T	
Hanford HQ	Hanford	1 Gbps	CVIN	X
Armona Branch	Armona	100 Mbps	GeoLinks	X
Avenal Branch	Avenal	100 Mbps	AT&T	X
Corcoran Branch	Corcoran	100 Mbps	CVIN	X
Kettleman City Branch	Kettleman City	1 Gbps	AT&T	X
Lemoore Branch	Lemoore	1 Gbps	AT&T	X
Stratford Branch	Stratford	100 Mbps	AT&T	X
Madera HQ	Madera	1 Gbps	CVIN	X
Chowchilla Branch	Chowchilla	100 Mbps	AT&T	X
Madera Ranchos Branch	Madera	100 Mbps	AT&T	X
North Fork Branch	North Fork	50 Mbps	Vast	X
Oakhurst Branch	Oakhurst	100 Mbps	Vast	X
Mariposa HQ	Mariposa	100 Mbps	Vast	X
El Portal Branch	El Portal	100 Mbps	GeoLinks	X
Red Cloud Branch	Coulterville	100 Mbps	GeoLinks	X
Wawona Branch	Wawona	1.5 Mbps	AT&T Calnet 3	X
Yosemite Branch	Yosemite	1.5 Mbps	AT&T Calnet 3	X
Merced County HQ	Merced	1 Gbps	CVIN	X
Atwater Branch	Atwater	100 Mbps	AT&T	X
Delhi Branch	Delhi	1.5 Mb	AT&T Calnet 3	X
Dos Palos Branch	Dos Palos	100 Mbps	Comcast	X
Gustine Branch	Gustine	100 Mbps	AT&T	X

Hilmar Branch	Hilmar	100 Mbps	AT&T	X
Le Grand Branch	Le Grand	100 Mbps	Comcast	X
Livingston Branch	Livingston	10 Mbps	Frontier	X
Los Banos Branch	Los Banos	1 Gbps	Comcast	X
Santa Nella Branch	Santa Nella	10 Mbps	AT&T	X
Snelling Branch	Snelling	1.5 Mbps	AT&T Calnet 3	X
Winton Branch	Winton	1 Gbps	Comcast	X
Porterville Public HQ	Porterville	1 Gbps/30 Mbps	Spectrum (Temp)	X
Visalia Branch HQ	Visalia	1 Gbps	CVIN	X
Alpaugh Branch	Alpaugh	100 Mbps	Vast	X
Dinuba Branch	Dinuba	100 Mbps	AT&T	X
Earlimart Branch	Earlimart	100 Mbps	AT&T	X
Exeter Branch	Exeter	100 Mbps	Vast	X
Farmersville Branch	Farmersville	100 Mbps	Vast	X
Ivanhoe Branch	Ivanhoe	100 Mbps	AT&T	X
Lindsay Branch	Lindsay	100 Mbps	Vast	X
London Branch	London	100 Mbps	AT&T	X
Orosi/Cutler Branch	Orosi	100 Mbps	AT&T	X
Pixley Branch	Pixley	10 Mbps	AT&T	X
Springville Branch	Springville	100 Mbps	AT&T	X
Strathmore Branch	Strathmore	100 Mbps	Vast	X
Terra Bella Branch	Terra Bella	1 Gbps	AT&T	X
Three Rivers Branch	Three Rivers	100 Mbps	AT&T	X
Tipton Branch	Tipton	100 Mbps	AT&T	X
Woodlake Branch	Woodlake	100 Mbps	AT&T	X
Tulare Public HQ	Tulare	1 Gbps	CVIN	X

APPENDIX B – ASSESSMENT AND REPLACEMENT PLAN CYCLE

Phase of Plan	Year Cycle	Cost Estimate	Funding Source	Reserves Held
<i>System</i>				
ILS	10	\$800,000	Tech Reserve	\$600,000
Horizon Server Upgrade	5	\$100,000	Tech Reserve	\$0
Web Cloud Hosting	3	\$ 200	Membership	
VMWare	3	\$ 10,000	Membership	
Entrust Security Certificates	3	\$ 16,000	Membership	
Antivirus System Symantec	3	\$ 13,000	Membership	
Bookeye Large Scanner	7	\$ 10,000	CLSA-Membership	
Pressure Sealer Equipment	7	\$ 7,000	Fee Rate	
<i>Public Computers</i>				
Print Management: Envisionware	7	\$ 15,000	Membership	\$0
Time Management: PC Reservation	7	\$ 15,000	Membership	\$0
<i>Network Infrastructure</i>				
Nimble	7	\$100,000	Committed	\$42,308
Switches (24/48)HQ	7	\$ 8,000	Assign Fund	\$0
Switches (24/48) Year 2	7	\$ 30,000	Assign Fund	\$0
Switches (24/48) Year 3	7	\$ 20,000	Assign Fund	\$0
Switches (24/48) Other	7	\$149,000	Assign Fund	\$0
Routers HQ	7	\$ 35,000	Assign Fund	\$0
Routers Branches	7	\$ 30,000	Assign Fund	\$0
Routers Branches Year 3	7	\$ 20,000	Assign Fund	\$0
Cisco Performance License - 100 Mb	7	\$ 5,900	Assign Fund	\$0
Cisco IOS Booster License - 1G	7	\$ 7,000	Grant/Assign Fund	\$0
Meraki Access Points	7	\$162,000	Grant/Assign Fund	\$0
Power Supply UPS	7	\$20,000	Assign Fund	\$0
<i>Server Network Redundancy</i>				
Fiber Optic Cable	10	\$ 5,000	Assign Fund	\$0
Copper	10	\$10,000	Assign Fund	\$0
Circuits to Juris-HQ	10	\$500,000	Grant Year 6	\$500,000
Total		\$2,088,000		

Phase of Plan	Year Cycle	Cost Estimate	Funding Source	Reserves Held
<i>Data Center</i>				
Barracuda Data Storage & Back Up	5	\$ 9,900	Assign Fund	\$0
Power Disruption-Portable Generator	5	\$ 50,000	Assign Fund	\$0
Environmental Catastrophes (Rental of equipment/AC chiller unit) - 5-ton unit	5	\$ 20,000	Assign Fund	\$0
<i>New Data Center</i>				
Development of Off site or new location - Data Center	5	\$400,000 <i>Estimate</i>	Assign Fund	\$0
SJVLS Office to new building-Other	1	\$711,800	Assign Fund	
<i>Other</i>				
Insurance-Data Breach - Cyber attacks	1	\$3,000	Membership	\$0
Remote Records Retention - E Rate files	1	\$600	Assign Fund	
Total		\$711,900		