

SCLS E-Mail Services Summary

November 28, 2011

The following document is a summary of the research done on behalf of the E-mail Working Group and the SCLS Technology Committee. The SCLS Technology Team was tasked to assess the viability of replacing the current email service offered by SCLS. The working group examined three possible services: the current SCLS e-mail service, Google Apps for Business, and Microsoft Exchange (Outlook).

Current SCLS E-mail Services

The current SCLS e-mail service consists of SENDMAIL installed on the SCLS servers with the Thunderbird e-mail client installed on staff PCs. Given the long-standing history of SENDMAIL, the current backend system requires very little intervention by the SCLS Technology Team. Moreover, since the service does not house e-mail on a central server, there is no need for a robust, multi Terabyte backup array. Our best estimate in terms of FTE devoted to e-mail backend server administration is on average 5% total of several staff member's time plus an aggregated 2% for Thunderbird client testing.

Initial Startup Costs

• None	\$0
Total	\$0

Ongoing Costs (Annual)

• Server (10% of \$3,000 server prorated over 5 years)	\$60
• SAN (1% of \$11,000 SAN Storage unit prorated over 5 years)	\$22
• Switch (4% of \$2,200 Cisco switch prorated over 5 years)	\$18
• Administration (.07 FTE)	\$4,200
Total	\$4,300 Annually

Microsoft Exchange

On August 25, 2011, the SCLS Technology Team received the final report from Drew St.John, CoreBTS consultant, the firm hired to produce the detailed technological data needed for the project.

Parameters to the project included limiting the size of the overall installation to 1,000 users, limiting the size of each individual's mailbox to 1GB, and anticipating that users would be accessing their email exclusively through the Outlook Web Access online interface (as opposed to the Outlook desktop client).

The SCLS Technology team reviewed the document and participated in a telephone conference with Drew. From that conversation and subsequent research, the following estimates in terms of overall cost for implementing an Exchange environment were established. Note: all of these costs are best estimates and could increase or decrease during the actual implementation.

Initial Startup Costs

• Server Hardware	\$7,000
• Server OS and Exchange Licenses	\$5,000
• Gigabit Switch	\$3,000
• Storage Area Network (SAN)	\$20,000
• Backup Software	\$5,000
• Staff Training	\$5,000
• Final Consulting fee for setup	\$7,500
Total:	\$52,500

Ongoing Costs (Annual)

• Server replacement (prorated over 5 years)	\$1,400
• Software updates (prorated over 3 years)	\$1,700
• SmartNet for the switch	\$100
• Switch replacement (prorated over 5 years)	\$600
• EMC Warranty maintenance for the SAN	\$500
• Backup Maintenance (prorated over 3 years)	\$1,700
• SAN Replacement (prorated over 5 years)	\$4,000
• Exchange Administrator (.5 FTE)	\$20,000-40,000
Total:	\$30,000-50,000 Annually

FTE Estimate

During the phone interview with Drew, the Technology team asked about ongoing FTE requirements for Exchange administration. Prior to this conversation, Jon Mark talked with Bryan Durkee, former System Administrator for the Winnefox Library System. Bryan was in charge of Winnefox's Exchange system.

Based on the two conversations, we conservatively estimate that it will take a .5 FTE position to manage Exchange and will most likely be double this estimate for several months before and after implementation. This does not include any time spent creating user accounts or troubleshooting questions regarding the various functions of Outlook Web Access. Those questions would be handled by the SCLS Helpdesk and calls would most likely increase after implementation and for some time thereafter. User account creation, addition and general first-response issues would remain duties of the System Support Specialist. Based on current market information, this position would require salary and benefits of \$20,000 – 40,000. However, it's doubtful that an actual part time Exchange Administrator could actually be found and would most likely be a full time position, with .5 FTE assigned to administrating the Exchange service. If the current Technology staff were tasked with taking over the actual Exchange administration, staff would have to be increased or one or more major technology services currently offered by SCLS would have to be eliminated.

Other issues

- Different e-mail addresses would need to be created for users of the Exchange system. Current e-mail address cannot be used simultaneously with the Exchange system.
- It may be technically possible that current mailboxes can be ported into the new system. Import tools would most likely incur additional costs.
- Since this would be an optional service offering, participating libraries would need to split the cost among themselves.
- Extensive training sessions and documentation will need to be created in order to bring library staff members up to speed on this new way of managing e-mail.
- Since Exchange offers a calendaring solution, a significant amount of time must be spent converting and porting all existing calendars into the new system from Evanced, Google Calendars, and other third-party systems. Training modules will also have to be created for the Calendar portion of Exchange.
- There are new legal issues that will have to be addressed since, for the first time, SCLS will be storing library e-mail on central servers. Currently, all e-mail is moved from our servers to the library-owned PCs and issues such as record retention, become the responsibility of the local library.
- All users will have to have their own Windows Domain account, instead of a single login for all library staff. Currently, many libraries maintain one or two generic accounts, using them to log onto library Staff PCs. Exchange does not support this model, meaning workflow issues at libraries would need to change.

Google Apps for Business

The following scenario outlines the costs associated with SCLS migrating to Google Apps (and Gmail) for all SCLS email accounts. Parameters to the project included limiting the size of the overall installation to 1,000 users so as to compare with Microsoft Exchange.

Google Apps could be used two different ways by South Central Library System members. SCLS could implement and maintain Google Apps and Gmail accounts for all libraries, or libraries could choose to implement and maintain those accounts themselves as Monona Public Library has done.

Initial Startup Costs

- none

Total: **\$0**

Ongoing Costs (Annual)

- 1000 accounts at \$50/account/year* **\$50,000**

Total: **\$50,000**

***since cost is per account, individual libraries implementing Google Apps may price the service based on the \$50/account/year pricing (annual plan). Libraries with ten or fewer email accounts would qualify for a free version of Google Apps with slightly less functionality if the library implemented and maintained the accounts on their own.**

FTE Estimate

Gmail and Google Apps could most likely be maintained at the same level of staff time that is currently spent on administering email via Thunderbird. Since services are hosted on Google's servers, the majority of SCLS staff time would be spent activating and deactivating Gmail accounts as staff join or leave the system. Additional time would be spent initially to transition SCLS staff to new email. SCLS staff could provide some level of technical support and troubleshooting, but in some cases library staff would have to contact Google support directly.

Other issues

- Email users would not be able to import old Thunderbird email to their Gmail account.
- Individual libraries could take responsibility for Google Apps themselves, but would then need to staff the service and maintain responsibility for administration of accounts and domain.

- Training sessions and documentation will need to be created in order to bring library staff members up to speed on this new way of managing e-mail, documents, and calendars.
- There are new legal issues that will have to be addressed since the email would no longer reside on the computers of individual staff members, but instead would reside on Google's servers. Currently, all e-mail is moved from our servers to the library-owned computers and issues such as record retention are the responsibility of the local library.
- Pricing and features are subject to change by Google at any time.

Google Apps version comparison

	Google Apps for Business	Google Apps (Free)
Gmail	YES, 25GB storage	YES, 25GB storage
Google calendar, docs, sites	YES	YES
Security: SSO, SSL, password security	YES	YES
Google Video, Google Groups	YES	NO
Mobile accessibility	YES	YES
Custom domain name	YES	YES
Shows advertisements	Can be turned off	YES
Number of accounts	Unlimited	10 maximum

There are other options available, but SCLS or member libraries do not qualify for Google Apps for Nonprofit or for Education rates. There may be a discounted price available to you if your municipality would be able to offer Google Apps for Government. More information on Google Apps for Business current pricing and features is available at <http://www.google.com/apps>

Conclusion

Based on the costs, staff intensive requirements and other identified limitations of the options presented herein, it is the opinion of the email workgroup that none of the options assessed provide a viable system-wide alternative to the current email as provided by SCLS.

The workgroup recommends that SCLS continue to maintain the existing e-mail equipment and services and continue to offer the current level of service for as long as practicable.

There is no requirement for libraries to use the email services provided by SCLS. Member libraries may choose to utilize alternative e-mail programs or providers including local governmental units, commercial vendors or web-based email services, with the understanding that SCLS will not support other email products or services. SCLS staff may be able to provide limited support in the migration to another product, with the understanding that such a transition may be non-reversible.