



Quality Assurance Monthly Report

This plan was independently prepared by Briskin Consulting and its associates in accordance with State of Washington Information Services Board policies governing independent quality assurance of Washington State information technology projects.

A handwritten signature in black ink that reads "Porsche Everson".

Porsche Everson

June 29, 2012

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Quality Assurance Assessment

Project Vision

The Shared Services Email Project’s vision is to maximize email capabilities and functionality available to all agencies and to provide email as a shared service, thus reducing cost and risk. The vision includes the following functions:

- Hosted email services
- Vault email retention
- Secure email
- Remote and mobile email access
- Interfaces with state agency applications that use email
- Service level agreements and high customer satisfaction
- Future extensibility

This initiative includes executive branch agencies and will also be available to other state government agencies. The outcome will be a single source solution hosted in the state’s data center.

The overall purpose behind the project is to optimize the value of IT by concentrating email services across state agencies to a centralized service to lower costs and improve service.

Status Overview and Requirements Assessment

This month’s report focuses primarily on a broad assessment of the original project objectives and high level requirements, and discusses how well the project met those objectives and requirements. This is the final report in the monthly assessment cycle. There will be a Lessons Learned report issued in June.

The project has been very stable in all measures for the past several months. As such, this report does not provide a detailed assessment of the standard evaluation factors seen in previous reports, but it does provide a broad overview of the OCIO success factors later in the report.

The current target for mailboxes migrated for this project is 51,000 mailboxes, which takes into account that several agencies have delayed their implementations until preliminary analysis is complete on an alternate approach to consolidated email services. As of May 31, there were a total of 47,573 migrated mailboxes, which represent 93% of the current projected total. Vault migrations lag significantly, and stand at 20,214, or 40% of current planned ingestions. Issue resolution remains fairly constant, with average response time of 137 minutes for the 95 support calls received in May. Thirty-nine percent of the calls were resolved within 24 hours.

Business Need/Generally Accepted Beliefs

Requirement/Objective	Rating	Comments
Drive cost and effort out of line and support services, including IT services		Data on individual agency costs is not consistently available, but DFI reported that their per user mailbox cost dropped from about \$24/mailbox/month to \$5.46/mailbox/month, which represents a 75% decrease in cost. Given the planned volume, CTS was

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Requirement/Objective	Rating	Comments
		<p>able to secure a significant reduction in the per user costs for secure email, compared to what other agencies are currently paying for that service.</p> <p>Agencies retain the responsibility for basic email administration like adding or removing users, but have transferred the responsibility for server, enterprise, and 2nd tier support to CTS. Agency technical staff are investing less time in email administration because of this transfer, but no quantifiable data exists to show the reduction in effort.</p>
Add value to line and support services		<p>The project consolidated complex and enterprise level administration, procurement and vendor negotiation within a single agency, CTS. This consolidation added value to line and support services by concentrating 2nd tier support requests to one group of technical staff. They provided value by leveraging their knowledge and experience across multiple agencies, with a higher volume of concentrated complex support calls than individual agencies have. In regard to procurement, bulk purchases and more concentrated vendor negotiation provided lower costs than would be expected from single agency negotiations.</p>
Leverage existing agency resources, data, and processes		<p>Existing agency resources continue to provide basic Exchange user administration and first tier support like managing forgotten passwords. All existing data was migrated to the hosted Exchange 2010 system. While most processes had some changes to account for the dual administrative functions, end users experienced little or no change in their use of the system, except to have additional features available to them.</p>
Avoid duplication		<p>Prior to the start of the project, each agency maintained their own set of servers for Exchange, and invested in full technical support services independent of other agencies. The new model creates a lean agency environment, focused on local basic user administration, with consolidated, high availability systems centrally managed. Individual agencies no longer need to maintain their own Exchange systems, or invest in their own 2nd tier vendor support contract.</p>
Reduce risk		<p>In general, the project reduces the risk of down-time, virus acquisition or propagation, spam, inadvertent release of unencrypted sensitive data, and improves the records retention process. Individual state agencies do not have the resources to invest in disaster</p>

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Requirement/Objective	Rating	Comments
		recovery/business continuity systems that are as robust as the current design for the SSEP. While most larger agencies had sufficient anti-virus and spam protection, small agencies sometimes did not. Of the nearly 20 million consolidated messages processed in April the SSEP IronPort solution blocked over 15 million spam or virus-containing messages. The new secure email solution, available to all agencies participating in SSEP, provides encryption based on flexible policy settings. Only a few agencies had any secure email solution in place prior to this project. Many agencies had some records retention system in place, but the Vault system consolidated the service and made it available universally. Further, the shared service email system eliminated personal storage PSTs, reducing the risk of incorrectly maintaining critical agency email records. However, the Vault system itself is not without risk. There have been multiple issues resulting in down-time with this solution. There is no data available to compare prior agency risk between those who had their own retention system to the new consolidated Vault system.
Reduce time for problem resolution	N/A	There is no data available to compare times for problem resolution prior to the inception of the project to current statistics. As such, this item is un-rated. Current metrics for 2 nd tier issue resolution are shown below: Average time for initial response: 145 minutes ¹ Percent of tickets closed within 24 hours: 40% ²

Vision

Requirement/Objective	Rating	Comments
Access to an email vault		The project has provided access to an email vault system, which is customizable based on agency retention policies. The system is transparent to end users. The Vault and the companion Discovery Accelerator allow legal staff and records retention officers to query the database to select relevant

¹ Average time for initial response counts all time, including evenings, weekends and holidays. A low priority support ticket received at closing, which was not addressed until the next morning, would result in at least 720 minutes being added to the response time for that ticket.

² There were 128 2nd tier support incidents registered in April 2012. Fifty-one (40%) were resolved within 24 hours.

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Requirement/Objective	Rating	Comments
		records based upon a wide variety of criteria.
Encryption/secure email		When the implementation is complete, all outbound mail messages will be scanned for sensitive content, and encrypted as appropriate. The solution provided is in wide use in the market. Agencies can configure their own policies for determining which emails will be encrypted.
Ease of interface with local business applications		Most agency business applications are fully supported. A few agencies were required to update their applications to take advantage of the data structure and calls within Exchange 2010 (Exchange Web Services). In a few rare instances, where no application upgrade was available, CTS created a small Exchange 2003 virtual environment to provide support to the remaining legacy applications. After 2013, Microsoft will no longer support Exchange 2003, but this interim solution allows agencies to plan for replacing, updating or retiring their legacy applications. It was much easier than anticipated to provide email integration with agency business applications.
In-bound and out-bound email filtering		All in-bound and out-bound email messages are filtered for viruses and spam content. Of the nearly 20 million inbound email messages handled in April 2012, 15 million were filtered out based upon spam (99.998%) or virus (0.002%) content.
Remote and mobile email access		Initially the project requirements specified remote web and Blackberry access. However, the Project Steering Committee and CTS discussed and ultimately approved adding ActiveSync mobile email access services. State employees who are using an approved device (selected Apple, Droid, or Windows smartphones or tablets) and whose agencies support access to email on personal devices, are able to access their state email via their mobile device. This is probably the most popular change to the project, and one that received universal support. A very robust and feature-rich remote access solution exists through the new web client for email.
A high degree of customer satisfaction		Most end users are completely satisfied with the new shared services email system. Most agencies who have completed their migration are also completely satisfied. A few agencies continue to express concern about the perceived ability of CTS to support the service long term, or they are concerned about the agency costs, or the long term direction for consolidated email services.

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Requirement/Objective	Rating	Comments
		A few agencies have expressed dissatisfaction with the delays in resolving some project issues, like a clear process for enabling agency application support. Overall, however, customer satisfaction is high.
The flexibility/expandability necessary to meet future business and strategic needs		The system architecture is flexible and expandable. CTS collaborated closely with Microsoft to create a system that utilizes industry standard best practices. The system can scale to handle significant additional growth. However, the project was unable to accommodate agencies that are not or cannot join the state Enterprise Active Directory service. Microsoft does not support Exchange services across non-EAD organizations.
Reduce risk by providing greater discovery functionality		The Discovery Accelerator tool can be used by legal or records retention personnel, and does not require working with a system administrator to craft or refine queries. It can search individual mailboxes or agency data stores. Once a message has been vaulted, it cannot be deleted, either by an administrator or by the mailbox owner until the retention period expires, at which point, the message is expunged automatically. Removal of personal storage (PSTs) reduced risk as well.
Increase focus on agency core business		Agencies still need a local Exchange administrator to handle basic user administration, but they no longer need to invest time and money in ensuring that their enterprise email system is functional, secure and up-to-date. There may have been a perception early in the project that agencies would be able to outsource all email administration, and some agencies may assert that their ability to increase focus on agency core business has not been significantly changed. Contract management and procurement functions within individual agencies changed. Agencies no longer had to individually negotiate with vendors to provide email services, instead relying on the centralized support provided by CTS.
Safeguard sensitive data at a reduced cost to the state over a five year period		The project successfully safeguards sensitive data in the Vault system, however, there have been a few instances where data access has been an issue, though the project staff have resolved the base issues at this point. There is no broad evidence that the data is safeguarded at a reduced cost over a five year period, because, except for DFI, no agency has data that shows

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Requirement/Objective	Rating	Comments
		their current costs for internally managing their email systems and data. DFI estimates their costs have dropped from about \$24/mailbox/month to \$5.46/mailbox/month, a 75% reduction in cost. In addition, the initial cost projections were based upon a target 66,000 shared services mailboxes. Current projections, due to the introduction of an alternate cloud-based email proposed solution and statewide staff reductions, are closer to 51,000. Further, some agencies currently using shared services email may choose to transition to cloud-based services if they are available.

Business Objectives

Requirement/Objective	Rating	Comments
Provide a standard service level agreement that will be developed prior to hosting any agency on the new system.		A standard service level agreement is available, and agencies must sign this agreement prior to implementing shared email. The agreement has been updated a few times, to incorporate additional services as they have been developed.
Provide access to more efficient, cost effective, secure storage for every user.	N/A	Cost comparison data is not available.
Provide improved records management, search capability and compliance with records management statutes for file retention and public disclosure.		The Discovery Accelerator tool can be used by legal or records retention personnel, and does not require working with a system administrator to craft or refine queries. It can search individual mailboxes or agency data stores. Once a message has been vaulted, it cannot be deleted, either by an administrator or by the mailbox owner.
Provide the capability to protect the confidentiality and integrity of sensitive data.		The secure email solution automatically scans all outgoing messages for strings or patterns that match individual agency settings related to sensitive data like social security numbers. Any email which has content that matches the identified string or pattern is automatically encrypted before being sent ³ .
Provide reliable, open application interfaces to		The solution requires and utilizes Exchange Web Services to communicate with MAPI-compliant

³ The system can be configured to take many different actions beyond encryption, including quarantining, blocking or alerting the user or another recipient about the sensitive data.

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Requirement/Objective	Rating	Comments
allow agencies to meet their business needs.		applications. The project has created and extended a small Exchange 2003 virtual environment to continue to provide support for legacy applications that are not compatible with Exchange 2010. However, this Exchange 2003 virtual environment will be decommissioned when Microsoft ends support for Exchange 2003, expected in 2013.
Provide a transition strategy for agencies to minimize risk and impacts.		The project worked extensively with each agency to perform detailed, individualized planning to minimize the risks and impacts of the transition to the shared services email environment. Each agency had unique issues that were addressed by the team. Most issues were resolved or mitigated. In some instances, agencies had to make changes in their business practices to comply with best practice recommendations from Microsoft, or to align with project constraints.
Provide new opportunities to enhance multi agency-workflows and processes through a single platform and application interfaces.		Participating agencies have access to universal Free/Busy information for users and resources in other agencies, and have access to the Global Address List, which improves collaboration.
Provide a single statewide solution which guards against spam, email viruses, malware, and inappropriate language that poses a risk to agency operations.		All incoming and outgoing mail is filtered through IronPort, which protects against spam, email viruses, malware, and inappropriate language. In April 2012, IronPort processed almost 20 million messages, and filtered out 15 million, the bulk of which were spam.
Provide a single, secure remote access method to the state email system for authorized users.		All users have access to their mailbox through a standard, secure URL.
Provide secure access to the state email system for authorized devices, while accounting for the differences in agency capability and infrastructure.		The project supports both Blackberry and ActiveSync (Apple, Droid, and Windows smartphones and tablets) solutions for mobile access. The project has a standard evaluation process to ensure that specific models of mobile devices support ISB security standards, and has published a list of tested and approved devices. Individual agencies have the ability to enable or disable the global service, set usage policies based upon device type, and allow specific individuals to utilize mobile services.
Provide a solution that complies with all ISB		The project complies with all ISB standards and policies, and with several national standards like HIPAA. The OCIO adjusted some policies related to mobile access

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Requirement/Objective	Rating	Comments
policies and standards.		to make device usage easier for end users.
Identify agency requirements for the system interface prior to deployment, and assess customer satisfaction following implementation to ensure a good fit between agency needs and the project solution.		Project staff liaisons worked with individual agencies to understand and address their unique requirements prior to deployment. Upon completion, all agencies were asked to complete a feedback form that assessed customer satisfaction and solicited ideas for process improvement. CTS solicits feedback through quarterly customer satisfaction surveys, and publishes the results.
Provide an email system that is available 99.5 percent of the time, given limitations to infrastructure.		During the initial phase of production operations, when the project and the maintenance/operations teams were stabilizing the systems, certain aspects of the email solution (like Vault), did not meet the uptime requirements consistently. As the operations phase of the project has matured, the SLA availability metrics have been more consistently met but are not yet at the 99.5% level. Going forward, it is expected that the shared email solution will meet SLA metrics regarding service availability.
Provide the opportunity to refocus agency resources on core business functions, instead of on email maintenance.		<p>Agency staff are still required to perform basic user maintenance, like adding or removing user accounts, password resets and first tier support. However, all enterprise level management, including provisioning, load balancing, monitoring, and other functions are performed centrally by CTS technical staff, freeing up agency resources for other work.</p> <p>Agency procurement and contract staff now have the ability to refocus on core business functions.</p>
Provide a competitive rate that delivers a return on investment for the state within 5 years.		The agreed upon rate of \$4.90 per mailbox month plus \$0.56 for secure email access, appears competitive based upon limited evaluation of the external environment.
Implement the solution in all executive branch agencies, and make it available to other state agencies based on the approved project plan.		The solution was made available to all executive branch agencies and other agencies, provided they were part of the Enterprise Active Directory system, a fundamental requirement of the approved project charter. Initial estimates were that 66,000 mailboxes would be supported when the project was complete. Current estimates are just over 50,000 mailboxes, due to statewide staff reductions, and delays related to the evaluation of a potential cloud-based solution for collaborative products, including email. Multiple non-executive branch agencies have expressed interest in

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Requirement/Objective	Rating	Comments
		participating in the project, but that work has been postponed until the core agency migrations are complete.
Provide a single-source solution hosted in the state data center.		The integrated solution is hosted in the state data center, and is administered by CTS staff. While the secure email system is outsourced to M86, CTS handles all support, and agencies have a single point of contact for all 2 nd tier support requests.

Architecture Solution

Requirement/Objective	Rating	Comments
Disaster Recovery		The email system has a three-site robust disaster recovery and business continuity system enabled and tested. Limited Vault DR services are in place, but full build-out is on hold pending decisions related to cloud-based email solutions.
High availability		The implemented solution has load balancing, immediate fail-over, and full business continuity functions in place, ensuring that mission-critical email services will continue to operate.
Flexible administration		The Delegated Administrator model designed for the system provides exceptional flexibility for individual agencies to configure most components of the system, including user management, messaging, filtering, secure email and retention policies.
Simplified transition to the State Data Center		The project provides pre-cutover guides, training and customized support for agencies, plus ongoing follow-up during the transition to the state data center. The project staff consistently seek feedback to improve the process for subsequent agency migrations.
Increased control over email integrity		The centralized architecture provides a much higher degree of control over email integrity than previously provided by individual agencies.
Improved discovery tools for investigations and public records compliance		Record retention staff and other authorized personnel have access to Discovery Accelerator, a powerful and customizable search tool. Authorized personnel can perform multi-mailbox searches as necessary.

Email Requirements

Requirement/Objective	Rating	Comments
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Requirement/Objective	Rating	Comments
Recipient management can be customized for an agency. E.g. Mailbox and distribution list administration can be delegated to agency staff or done by DIS staff if agency chooses		The Delegated Administrator functionality provides this flexibility.
Support for applications that read and write to the exchange database		CTS has provided support for applications that are compliant with the Exchange Web Services API. In addition, CTS has configured a small virtual Exchange 2003 environment to continue to provide transitional support for agencies that have legacy applications that are not compliant with current standards. The Exchange 2003 environment will be decommissioned around December 2012, when Microsoft officially stops providing support for the legacy environment.
Support staff of the shared servers for any function may be required to have background checks including finger printing to be performed by the agency.		CTS has agreed to comply with any agency security and background check requirements for any technical staff who administer the shared servers.
Deleted item retention setting can be customized at the exchange database.		This is configurable by agency, and if necessary, by subgroup within agencies.
Attachment size needs to be configurable for each agency due to network, bandwidth considerations		Base attachment size is limited to 30MB for the shared service. Individual agencies can reduce the limit as desired to meet their internal policies, but cannot increase it.
Ability for agency admin to purge deleted items from Exchange server		Deleted items are automatically purged after 30 days. Delegated administrators can set up single item recovery and prevent users from purging their own data. For agencies that don't set this parameter, both the agency administrator and the user can purge deleted items.
Ability to produce a 'point in time' view of a mailbox		The Vault system can restore a point in time view of a mailbox.
Ability to push agency defined folders from the exchange server		Agency administrators can push folders from the exchange server to individual mailboxes. This is most commonly done for Vault folders where retention can be configured to 1 year, 2 years, etc.

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Requirement/Objective	Rating	Comments
Flexible search delegation – ability to delegate to an individual to review a subset of users only as well as staff permitted to look at all agency users		Search delegation and multi-mailbox search is highly customizable through Discovery Accelerator. For example, one agency has multiple groups with different authorization levels for different sets of mailboxes. Most agencies use a simpler approach, but the flexibility is present.
Deleted items need to be maintained when mail box is moved from one server or database to another within the deleted item retention period (30 days).		All folders, items within those folders, and their meta data are migrated, including the deleted items folder.
Exchange message monitoring ability delegated to agency.		Agency administrators have access to the Exchange Administration tools, which include message monitoring functions.
Exchange needs to support SMTP and POP3 interfaces with applications		SMTP and POP3 interfaces are supported with applications.
Ability to set auto deletion from folders based on time limit, by agency such as, calendar items.		This function is controlled by the Vault retention policies set by individual agencies.
Mailbox sizes set by agency		The system default mailbox size limit is set to 1GB. Agencies have the ability to set the size limit lower if necessary but cannot go higher except for discovery mailboxes.
Ability to maintain previous client versions		SSEP supports both Outlook 2007 and 2010 clients. Older clients that are no longer supported by Microsoft are not supported by the project.
Design preference includes the use of Cache for better performance		By default, Outlook is set up as recommended in cached mode for individual users to improve performance, but can be changed as necessary for individual users who require a different access model.
Ability for an agency to recover deleted items for their employee		Both users and agency administrators can recover deleted items as necessary, within the specified retention periods.
Capacity to journal individual mailboxes		Both individual mailboxes and folders within mailboxes can be configured for journaling.
Delegate public folder administration to agency level		Most public folder administration is delegated to the agency level, however, public folder setup and migration require 2 nd tier support from CTS to complete. This is a limitation of the product.

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Requirement/Objective	Rating	Comments
Ability to implement standard signature blocks at the user level – agency delegated.		Standard administrative function within the Delegated Administrator model.
Ability to review queues and logs, delegate to agency		Standard administrative function within the Delegated Administrator model.
Ability to use RPC over HTTPS		This is the standard approach. In addition, the system also supports RPC over HTTP to allow unencrypted data to be compressed if necessary.
Exchange servers will have anti-virus on the databases		Virus protection is handled at two levels—the IronPort gateway and through ScanMail within the Exchange servers.
Ability to recover a user’s mailbox back to 30 days		An administrator can recover any message deleted from a user’s mailbox within 30 days, even if the deleted items folder was purged by the mailbox owner. Messages older than 30 days are vaulted, and cannot be deleted by the user or the administrator, although the Vault system will automatically purge messages once they exceed the retention period.

Gateway Requirements

Requirement/Objective	Rating	Comments
Shared Service needs to provide secure email transmission, encryption and 3rd party certificates.		This functionality is provided by the Secure Email service provided by M86.
Outbound blocking for SSN.		Messages can be blocked, encrypted, sent, queued, returned to the sender or other delegated authority or deleted based not only on SSN patterns, but any other filter criteria set by the individual agency.
Email Filtering outbound to the internet delegated to the agency		Outbound email filtering is configured and managed by the agency.
Attachment scanning – agency delegated, files types to be blocked		The project has a standard list of attachments that are blocked, based upon security recommendations from Microsoft. Agencies can add other file types to be blocked as necessary, but cannot change the standard list of attachments to be blocked.
Virus Scanning		Virus scanning is handled at two levels: IronPort Gateway and ScanMail within the Exchange system. Of the nearly 20 million email messages handled in April 2012, 15 million were filtered out based upon spam

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Requirement/Objective	Rating	Comments
		(99.998%) or virus (0.002%) content.
Quarantine area can be delegated down to the agency and the agency user level		The Secure Email solution quarantines outbound messages based upon filters set by individual agencies. Actions can be configured based upon individual or group settings. Individual users can access their junk mail, and can configure filters by sending domain or email address.
Service allows for delegation of message tracking to the individual agency		This is a standard administrative function within the Delegated Administrator model.
Service allows for delegation of white and black list creation and maintenance at the individual agency level		This functionality is configurable at the individual agency level. Some support features require 2 nd tier support to complete.
Service provides for inbound filtering		Inbound filtering is provided, and is configurable at the individual agency level. Of the 20 million messages received in April 2012, approximately 15 million spam/virus messages were blocked.
Agency statistical reporting ability		Statistical reporting is available in the Exchange Administration Tools provided to the Delegated Administrators.
Real time monitoring tool/portal for agencies		Real time monitoring is provided within the Exchange Administration tools.

Vault

Requirement/Objective	Rating	Comments
Ability to set up agency specific rules to store or exclude mail items in the vault by specific retention parameters.		Agencies can configure and set their own retention rules, and can use multiple retention periods at the individual and/or group levels.
Discovery Accelerator available for agencies to permission some or all staff as a tool to search the vault		Agencies can configure access to Discovery Accelerator to individual users or groups. Multiple settings can be maintained within an agency, e.g. a user's access can be configured within their own scope of authority, and can be limited outside that scope of authority.
Search tool needs to perform subject line, message body and attachments		Discovery Accelerator can search on multiple parameters, including subject line, message body, attachments and other message parameters.

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Requirement/Objective	Rating	Comments
Ability to send a mail item from the Vault as a new mail item to recipients' in box.		Any vaulted message can be forwarded to a recipient and will appear as a new mail item.
Ability to present folders from the vault		Folders and subfolders can be created by the user. The folders will be vaulted based on specified retention parameters. The folders are visible and available to the user, and to authorized personnel who are performing searches.

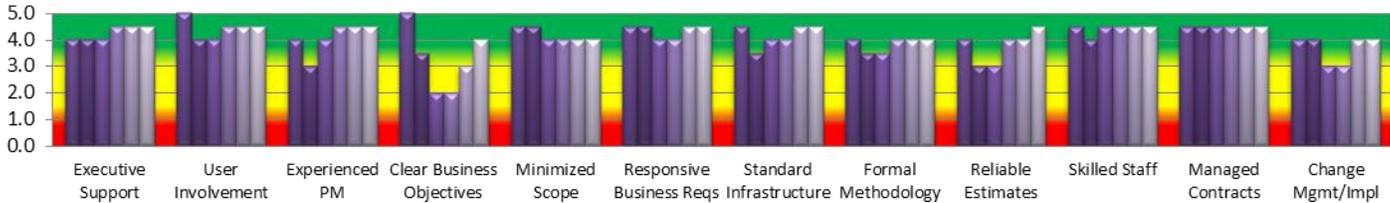
Other Requirements

Requirement/Objective	Rating	Comments
Blackberry/ActiveSync		Agencies can offer and configure Blackberry and ActiveSync services to users. CTS maintains a list of supported devices that meet state security requirements.
Unified Messaging - Store voice mail messages in email		Voice messages from the Avaya phone system are integrated into the shared services email system. Voice messages can be stored and forwarded within the email system as a .WAV file.
Disaster Recovery Requirements		The email system has a three-site robust disaster recovery and business continuity system enabled and tested. Limited Vault DR services are in place, but full build-out is on hold pending decisions related to cloud-based email solutions.
Customer Expectations/Improvements		CTS provides customized support, training and documentation before, during and after the agency's transition to shared email services. The project follows up with post-implementation surveys which are used to provide process improvements for subsequent implementations.
SMTP Relay – agencies have a need to have server(s) to use for SMTP relaying		SMTP relay services are configured, tested and are being used in production by at least one agency.

OCIO Success Factors

The Washington Office of the Chief Information Officer (OCIO) provides a framework for project management and quality assurance. Through evaluation of hundreds of projects, evaluation and research, the state has established a concise list of critical success factors that predict project success. See ofm.wa.gov/ocio/policies/documents/131appendix.pdf for more information. This framework provides a quick overall dashboard of the project success potential. The overall QA analysis presented in this report is deeply rooted in this framework, and goes beyond this high level project review.

OCIO Success Factors



OCIO Success Factors	Rating	Observation
Executive Management Support	4.5	Executive Management support remains strong. Collaboration between the SSEP and the cloud-based pilot project is highly evident.
User Involvement	4.5	The Project Steering Committee remains active and will continue as the steering committee for the cloud-based project as it unfolds. Agency technical staff are engaged in ongoing collaboration with CTS.
Experienced Project Manager	4.5	PM continues to manage project utilizing best practices. Monitoring and execution are strong.
Clear Business Objectives	4	Most of the business objectives have been fully or mostly met.
Minimized Scope	4	No additional change requests have been made. Scope is stable. The project is targeting approximately 51,000 mailbox migrations, down from the original 66,000.
Responsive Business Requirements Process	4.5	The project team continues to seek feedback from agencies, and to incorporate that feedback into improving subsequent work.
Standard Infrastructure	4.5	The overall architecture and implementation have been evaluated by Microsoft Consulting Services, who reported that both the design and the implementation were exceptionally robust.
Formal Methodology	4	Project tracking and control processes are strong. The project team meets daily to identify and address emerging issues.
Reliable Estimates	4.5	Current estimates for completing work are being met.
Skilled Staff	4.5	Staff are highly skilled at implementing and managing the shared services email system. Issue resolution continues to improve as their experience grows.
Managed Contracts	4.5	All contracts are performing well, at or under budget.

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		Most contracts are in the process of being closed out, although ongoing 3rd tier support contracts will remain active.
Change Management/ Implementation	4	Current projections are for 51,000 mailboxes to be migrated by the end of the project, down from 66,000. This is due primarily to some agencies deferring their implementations, preferring instead to wait until the alternate cloud-based solution is thoroughly evaluated before making a decision about which course to pursue.

QA Findings and Recommendations

There are no formal findings or recommendations during this reporting period. However, Briskin Consulting offers the following observations.

In most ways, this project was a strong success. It brought together agencies on a major collaborative effort and carefully negotiated the balance between agency autonomy and effective resource utilization. Several best practices emerged during the course of the project, including the use of pre-cutover checklists, dedicated project liaisons to help address circumstances unique to each agency, and close working relationships between project staff and maintenance and operations staff through the extended implementation period.

All of the original project objectives and high level requirements were met or mostly met. In some instances, some requirements, like secure email and SMTP relay services were significantly delayed from the baseline plan because of competing priorities. However, at this point, all planned services and requirements are implemented.

The system as designed and implemented was considered exemplary by Microsoft Consulting Services, during their external independent assessment of the project.

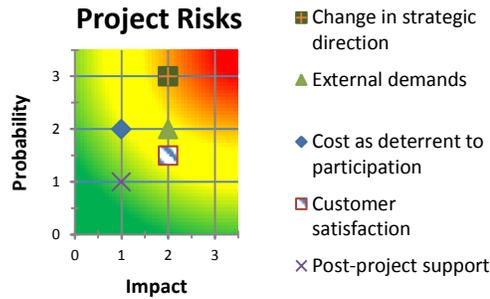
If measured solely on the actual number of mailboxes migrated versus planned (51,000 versus 66,000, or 77% of expected), the project did not meet its goals. However, two major factors outside the control of the project changed the equation mid-way through the project. First, the state experienced sustained staff losses across all agencies due to the prolonged economic downturn and stagnation. Second, the late introduction of an alternate but compelling vision for cloud-based email solutions caused some agencies to defer their implementations to effectively evaluate both options.

The Vault system is functioning as intended. However, ingestions are significantly lagging behind plan. Work will continue past the project end date to complete scheduled work.

Risk Tracking

What could happen that could affect the project’s level of performance and outcomes?

This section reports critical risks to project success that are or should be under management by the project’s management team, based on QA analysis. Not all risks identified by the project are reported here.



Risk/Impact	Probability Level (1=Low, 3=High)	Impact Level (1=Low, 3=High)	Mitigation Status/Comments
<p>Risk: Change in strategic direction OCIO recently released the 2012 Technology Strategy, which changes the approach for shared services email, to include Office365 alternatives.</p> <p>Impact: Costs and benefits could be significantly impacted for the SSEP project.</p>	3	2	<p>Assess the potential impact on project targets for usage, costs, and on strategies for communication and change management.</p> <p>UPDATE 4/1/12: The impact level was changed to medium, down from high. This is because many of the proposed project benefits can be realized through a complete implementation of the Office365 approach. This is a high-watch area in the coming months as plans unfold.</p> <p>UPDATE 6/4/12: The business case for the cloud-based solution is expected to be completed this month, which will enable a go/no go decision on that project. After SSEP project closeout, maintenance and operations staff will work with other agencies who wish to participate in the project, which could improve the final implementation numbers. If the new direction is feasible and is pursued, the potential exists that the targeted economies of scale for the SSEP solution would not be achieved.</p>
Risk: External demands	1	2	The PM, Implementation Manager and key

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Risk/Impact	Probability Level (1=Low, 3=High)	Impact Level (1=Low, 3=High)	Mitigation Status/Comments
<p>External demands can pull resources away from project activities.</p> <p>Impact: Schedule and quality could be impacted.</p>			<p>staff have other responsibilities outside the project. These external factors could impact schedule and quality.</p> <p>UPDATE 12/30/11: SDC project work being re-planned. Risk is lower at present.</p> <p>UPDATE 3/1/12: Office365 pilot may partially impact some project staff.</p> <p>UPDATE 6/4/12: Cloud-based pilot project is impacting some staff, but risk is not increasing.</p>
<p>Risk: Cost as a deterrent to participation The cost of Vault storage and mandatory secure email services may discourage agency participation.</p> <p>Impact: Some agencies may end up not participating in the project, losing out on the benefits of a shared solution. Email costs were based on a projected number of participants, and a significant change in the base may impact costs for the remaining participants.</p>	2	1	<p>Re-confirm March 2011 decision to make secure email services mandatory. Compare costs and benefits/services to private sector solutions.</p> <p>UPDATE 3/1/12: A significant shift to Office365 will likely impact costs for remaining users.</p> <p>UPDATE 6/4/12: At this point, there are no plans to increase costs for existing users to make up for lost volume. Executives are waiting to see what will happen with the cloud-based pilot project before addressing any cost issues.</p>
<p>Risk: Customer satisfaction Customers may not be satisfied with the final project offerings.</p> <p>Impact: Some customers may end up unraveling from the shared solution if their experiences are poor or if they find the solution to be of little value. Future shared solution projects could suffer from a lack of participation.</p>	2	2	<p>Continue to compare project offerings with original benefits plan. Seek customer feedback through quarterly SLA surveys and other venues.</p> <p>UPDATE 6/4/12: Satisfaction is increasing as implementations wrap up and stability is maintained.</p>
<p>Risk: Post-project support Support may degrade after the project ends.</p> <p>Impact: Some customers may end up unraveling from the shared solution if their</p>	1	1	<p>Continue to work on issue response and issue resolution times to improve service.</p> <p>UPDATE 3/1/12: Issue response times are within expected ranges. Resolution process is strong.</p>

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Risk/Impact	Probability Level <i>(1=Low, 3=High)</i>	Impact Level <i>(1=Low, 3=High)</i>	Mitigation Status/Comments
experiences are poor. Future shared solution projects could suffer from a lack of participation.			
<p>Risk: Volume impacts on service When volume increases, there could be issues that impact migrations or production use.</p> <p>Impact: Migrations could be delayed. Production issues, loss of service or poor application response time could result.</p>	1	3	<p>Monitor service and throughput. Evaluate load balancing. <i>Risk closed 3/1/2012.</i></p>

Risk scoring is applied to impact and probability levels. Impact represents how much realization of a risk might affect achieving project objectives. For example, on this project, if a subproject exceeds its allotted time, overall the project may have to cut scope which would undermine delivering on its objectives. Probability level represents the present estimation of how likely the risk is to occur. A high probability score would indicate a high likelihood – say greater than 80% - that the risk will turn into a real problem for the project.

Issue Tracking

What has happened that is affecting the project’s level of performance and outcomes?

This section reports issues that impact project success that are or should be under management by the project’s management team, based on QA analysis. Not all issues identified by the project are reported here.

Issue/Description	Status	QA Analysis
<p>There is a shift in strategic direction related to shared services email which reduces the number of hosted mailboxes and potentially impacts the original project objectives related to cost recovery.</p>	<p>Active</p>	<p>The introduction of a new strategic direction involving Office 365 has an impact on the original project benefits outlined in the SSEP charter. Fewer mailboxes will be hosted. Cost recovery may not be realized as planned.</p> <p>UPDATE 6/4/12: Collaboration between the two projects is strong, with the same set of steering committee members for each project.</p>
<p>Meeting the implementation schedule depends upon agency and CTS readiness.</p>	<p>Active</p>	<p>Agencies have made initial commitments regarding their planned implementation dates. They retain control over the actual migration timelines, however, CTS is evaluated based on how well they meet the current implementation schedule. CTS has no authority to enforce plan dates with the external agencies.</p> <p>UPDATE 12/30/11: This issue is being resolved, and could be relegated back to risk status.</p> <p>UPDATE 1/31/12: Serious Vault issues are undermining agency confidence. Vault implementations are being deferred until the issues are resolved.</p> <p>UPDATE 3/1/12: Vault implementations are restarting. System appears stable.</p> <p>UPDATE 4/1/12: Some agencies may be foregoing migration and other shared services, choosing instead to wait for the Office365 pilot to complete.</p> <p>Update 5/1/12: Vault ingestions are significantly behind plan. Many customers are deferring this work until clear plans emerge for the Office365 project. Work will likely continue past the project end date to handle the backlog of Vault ingestions.</p>
<p>Multiple issues with Vault services resulted in intermittent loss of access, some loss of data and have shaken customer confidence. Work is underway to</p>	<p>Closed 5/1/12</p>	<p>This issue has undermined customer confidence. Significant effort must be expended to identify root cause and ensure that the system is stable.</p> <p>UPDATE 3/1/12: Architectural changes were made to</p>

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Issue/Description	Status	QA Analysis
identify root causes.		<p>remove the problem that was causing loss of data. The extent of the data loss is not yet quantified. The system has been stable since the fix was put in place. PM and team personally visited agency leaders to explain the issue.</p> <p>UPDATE 4/1/12: System is stable; data loss is being quantified and appears consistent with original assumptions. Recommend closing this issue.</p>
Project scheduling and tracking work is falling behind.	Closed 5/1/12	<p>A new scheduler is expected to start in mid-January, which should help with this issue.</p> <p>UPDATE 3/1/12: Scheduler hiring process is stalled. PM and support staff working to address scheduling work, which is in progress, but is not complete.</p> <p>UPDATE 5/1/12: Existing team has been managing project schedule and tracking. At this point in the project, there is no need to add additional staff. Issue is closed.</p>
Secure email implementation work is significantly behind schedule.	Closed 5/1/2012	<p>Contract was signed on 12/30, and planning work is starting in January.</p> <p>UPDATE 1/31/12: Contractor on site this week for project kickoff. Schedule will be finalized in early February.</p> <p>UPDATE 3/1/12: Secure email schedule is drafted, will be communicated to agencies soon.</p> <p>UPDATE 4/1/12: Plan has been updated. Project team met new milestones for implementing service. Recommend closing this issue.</p>
Issue response time doesn't meet expectations.	Closed 4/1/2012	<p>Service level metrics for the past three months show unacceptably long response times for reported incidents. Analysis indicates that processes for handling issues are not well developed. CTS is working on process improvement.</p> <p>UPDATE 12/30/11: Issue response time for Nov/Dec is better than Sept/Oct, but still hovers around 4-5 hours.</p> <p>UPDATE 3/1/12: Issue response time during the first two months of 2012 was within expected ranges. Processes are well established. Recommend closing this issue.</p> <p>UPDATE 4/1/12: Issue closed.</p>
Secure Email RFP needs to be re-issued, which is causing a delay in that part of the project, but is	Closed 10/5/11	

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Issue/Description	Status	QA Analysis
not impacting the core migration activities.		
Secure email contract delayed.	Closed 12/30/11	The ASV was announced around October 1. As of 11/30, the contract was not yet finalized. UPDATE 12/30/11: Contract is finalized. Planning will get underway in January.

Appendix 1: Baselines and Recommendations History

Scope and Schedule Baselines

The table below itemizes the scope of work and shows the schedule from the project which can be considered to be the current schedule baseline. Data in this section is current as of May 31, 2012.

Actual mailbox migrations are very different than planned. There are two factors contributing to this difference. First, the blue line shown on the Cumulative Email Migration Activity graph on the next page represents a theoretical, measured plan for implementations that was generated at the very beginning of the project. For current planning purposes, project staff use the Agency Implementation Order and other supporting tools, which contains far more detailed information, including the number and size of waves of agency mailboxes to be migrated, and the dates those waves are scheduled to occur. The actual implementation schedule is much more discontinuous than smooth, and takes into account agency readiness for migrating. The second factor contributing to the difference between planned and actual is that there will ultimately be fewer total mailboxes to migrate than originally planned; 51,000 versus the original plan of 66,000. The difference is attributable to agencies who are participating in the Office365 pilot instead of SSEP, and the decline in the number of state employees across all agencies since the plan inception. Vault migrations are significantly off plan, due mostly to issues related to Vault readiness and stability, and a conservative approach to implementation on the part of remaining agencies.

Key Milestone/Deliverable	Planned Finish Date	Actual Finish Date	Finish Variance (work days)
Blackberry Ready for 1 st Agency	2/1/2011	2/1/2011	0
Exchange 2010 Ready for 1 st Agency	5/16/2011	5/16/2011	0
Phase 1 CTS Readiness Complete	5/23/2011	5/23/2011	0
Service Level Agreement Finalized	5/27/2011	7/13/2011	34
Secure Email Ready for 1 st Agency	8/22/2011 ⁴ 3/30/2012 ⁵		160 0
Vault System Ready for New Customers	9/28/2011	9/28/2011	0
Agency Implementations 25% Done (16,500 mailboxes)	10/30/2011	11/11/2011	10
Agency Implementations 50% Done (33,000 mailboxes)	11/30/2011	12/14/2011	11
Agency Implementations 75% Done (49,500 mailboxes ⁶)	12/30/2011		106 to date
Agency Implementations 100% Done (66,000 mailboxes)	6/30/2011	N/A	
Project Close	7/30/2012		

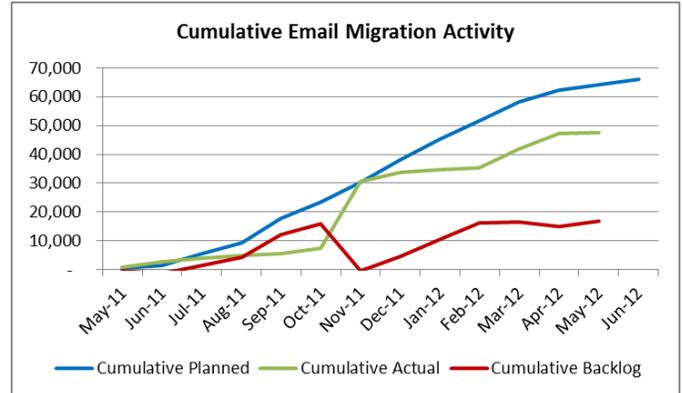
⁴ Original baseline.

⁵ Current projection.

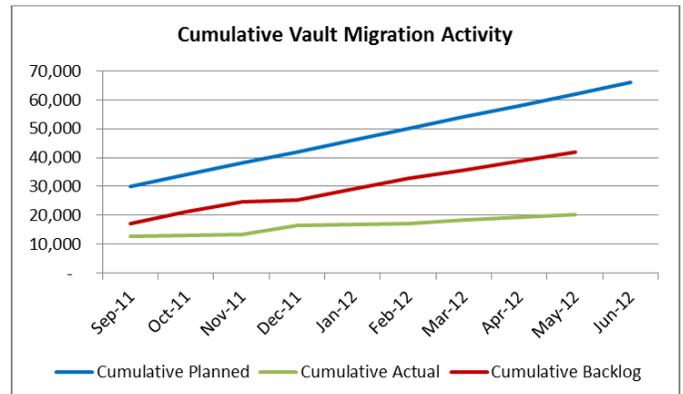
⁶ The current total projected number of migrated mailboxes is 51,000. 75% of that would be 38,250, which was reached in early March, 2012.

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Email Migration Activity			
Implementation Activity	Planned Migrations	Actual Migrations	Cumulative Variance
May-11	497	867	(370)
Jun-11	916	1,837	(1,291)
Jul-11	3,946	1,287	1,368
Aug-11	3,876	1,012	4,232
Sep-11	8,500	593	12,139
Oct-11	5,500	1,712	15,927
Nov-11	7,000	23,356	(429)
Dec-11	8,000	3,062	4,509
Jan-12	7,000	1,058	10,451
Feb-12	6,500	663	16,288
Mar-12	6,500	6,330	16,458
Apr-12	4,000	5,510	14,948
May-12	2,000	286	16,662
Jun-12	1,765		
Total	66,000⁷	47,573	



Vault Migration Activity			
Implementation Activity	Planned Migrations	Actual Migrations	Cumulative Variance
Sep-11	30,000	12,787	17,213
Oct-11	4,000	166	21,047
Nov-11	4,000	531	24,516
Dec-11	4,000	3,096	25,420
Jan-12	4,000	241	29,179
Feb-12	4,000	296	32,883
Mar-12	4,000	1,284	35,599
Apr-12	4,000	827	38,772
May-12	4,000	986	41,786
Jun-12	4,000		
Total	66,000⁷	20,214	



⁷ The total expected email migrations are approximately 51,000 at present.

Benefits Baseline

What business benefits and objectives are sought, and is the project on track to achieve them? The table below itemizes the business benefits and objectives expected from the project as described by the project charter. This can be considered to be the current benefits baseline.

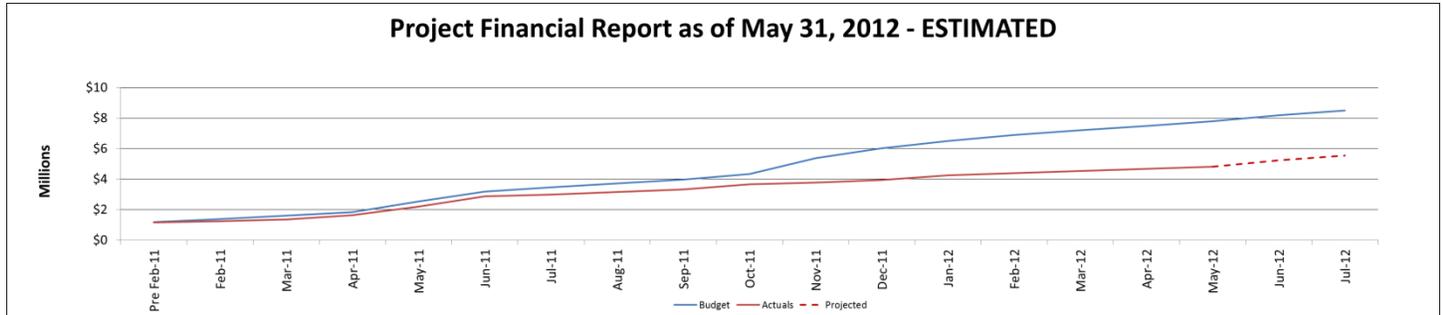
Many of the financial and efficiency benefits of the shared services email project (SSEP) depend on participation by most of the state’s email users. The change in strategic direction involving Office365 is producing a period of significant uncertainty. If Office365 proves feasible and most state agencies eventually move to the Office365 platform, the consolidation related business benefits originally expected of SSEP are likely to be realized. However, if the change in direction results in a mix of email platforms and services for an extended period of time, achievement of benefits may be delayed or not realized. Several benefits in the table below are marked “at risk” for this reason. QA recommendation #14 in the Findings and Recommendations History table urges SSEP and the OCIO to reconcile the new Technology Strategy with SSEP, set new email consolidation objectives, and update the benefits expected from the new objectives.

Proposed Business Benefit/ Objective	Current Status
1. Provide a standard service level agreement that will be developed prior to hosting any agency on the new system.	In scope
2. Provide access to more efficient, cost effective, secure storage for every user.	In scope
3. Provide improved records management, search capability and compliance with records management statutes for file retention and public disclosure.	In scope
4. Provide the capability to protect the confidentiality and integrity of sensitive data.	In scope
5. Provide reliable, open application interfaces to allow agencies to meet their business needs.	In scope
6. Provide a transition strategy for agencies to minimize risks and impacts.	In scope
7. Provide new opportunities to enhance multi-agency workflows and processes through a single platform and application interfaces.	In scope
8. Provide a single statewide solution which guards against spam, email viruses, malware and inappropriate language that pose a risk to agency operations.	In scope
9. Provide a single, secure remote access method to the state email system for authorized users.	In scope
10. Provide secure access to the state email system for authorized devices, while accounting for the differences in agency capability and infrastructure.	In scope
11. Provide a solution that complies with all ISB policies and standards.	In scope
12. Identify agency requirements for the system interface prior to deployment, and assess customer satisfaction following implementation to ensure a good fit between agency needs and the project solution.	In scope
13. Provide an email system that is available 99.5% of the time, given limitations to infrastructure.	In scope
14. Provide the opportunity to refocus agency resources on core business functions, instead of on email maintenance.	In scope

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Proposed Business Benefit/ Objective	Current Status
15. Provide a competitive rate that delivers a return on investment for the state within 5 years.	At risk
16. Implement the solution in all executive branch agencies, and make it available to other state agencies based on the approved project plan.	At risk
17. Provide a single-source solution hosted in the state data center.	At risk

Budget Baseline



Expenses continue to be below budget and show no evidence of changing from this trend. The financial report is based on figures obtained from project staff. Planned cumulative expenses for May were \$7.77 million, compared to actual cumulative expenses of \$4.80 million. This represents a cumulative spend rate of 62% of target, to date. Note that project financial reports continue to be based on estimated data, due to delays in receiving official financial reports.

Findings and Recommendations History

How can the performance of the project be improved?

#	Date Created	F/R	Finding/Recommendation	Current Status and Comments
1.	9/1/2011	R	Carefully monitor migration progress, especially in September and October to ensure that the project meets projections. Ensure the project team has a good understanding of the impact of any delays in one part of the schedule on commitments to agencies. Provide adequate buffers, to the extent possible, to avoid schedule disruptions.	Done.
2.	9/1/2011	R	Update the project charter to clarify project benefits and bring into alignment with Service Level Agreement.	No action taken.
3.	9/1/2011	R	Ensure that sufficient knowledge transfer is occurring between contracted vendors and CTS.	Done.
4.	9/1/2011	R	Recommend that Maintenance and Operations staff gather, monitor and address service metrics as identified in the Service Level Agreement on a regular basis to ensure that their capacity for support is sufficient, given the high volume of planned mailbox migrations in the next four months.	Done.
5.	9/1/2011	R	Initiate periodic formal risk and issue assessment meetings.	Done.
6.	10/5/2011	R	Ensure that communications with clients clearly demonstrate how project objectives are met by the planned scope, schedule, and budget.	Done.
7.	10/5/2011	R	Provide greater visibility into product and service performance, actual costs per mailbox, and plans for system updates/enhancements.	Done.
8.	10/5/2011	R	Assure that the project has the capacity to stay on schedule, especially around holidays and after intensive implementations.	Done.
9.	12/1/2011	F	Issue response time is unacceptably high	Done.
10	12/1/2011	F	The secure email contract is significantly delayed	Done.
11.	12/1/2011	R	The scope of agency application support and SMTP relay testing is unclear to some agencies.	Done. 12/1/11: In progress. The project staff will begin work with agencies in January. UPDATE 1/31/12: Initial design

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#	Date Created	F/R	Finding/Recommendation	Current Status and Comments
				work started. Schedule is not yet finalized. Work with agencies scheduled to start in February. UPDATE 3/1/12: The security design review took longer than expected. It is now complete. Remaining work will be transitioned to a different team member to finish. UPDATE 5/1/12: Department of Early Learning will be the first agency to utilize SMTP relay in production, expected in early May. UPDATE 6/4/12: SMTP relay services in production.
12	2/1/2012	F	Multiple issues with Vault services resulted in intermittent loss of access, some loss of data and have shaken customer confidence. Work is underway to identify root causes. Recommendation: Continue to identify root causes. Evaluate Vault architecture to ensure it is sufficient to meet user expectations for uptime and avoidance of data loss. Explore process improvements to ensure system stability. Provide detailed communications to end users.	Done.
13	2/1/2012	R	Update schedule, milestones and baselines as necessary, communicate new schedule and milestones to agencies.	Done.
14	3/1/2012	R	Actively communicate with agencies to understand their response to the OCIO Technology Strategy that creates the Office365 alternative to shared services email. Assess the potential impact on project targets for usage, costs, and on strategies for communication and change management. Formally adjust and communicate project targets and objectives as needed.	In progress. UPDATE 6/4/12: Collaboration is strongly evident. Both projects are using the same members for their Project Steering Committees, enhancing communication and collaboration.
15	3/1/2012	R	Adjust schedule and baselines as necessary, communicate new schedule and milestones to agencies. Develop new interim/detailed milestones for secure email sub-project and remaining work. (repeat recommendation)	Done. UPDATE 4/1/12: Secure email planning is complete. Other work in this phase needs more definition. UPDATE 5/1/12: Project plan and milestones for the final

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#	Date Created	F/R	Finding/Recommendation	Current Status and Comments
				phases of the project are complete.