

2015 NASCIO Recognition Award Nomination

**Commonwealth of Pennsylvania Treasury Department
Bureau of Information Technology Solutions**

Title: Treasury Transformation and Modernization Project

Category: Enterprise IT Management Initiatives

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Project initiation and completion dates:

Initiation: 05/01/2012

Completion: 06/30/2014

Executive Summary

The Pennsylvania Treasury Department completed an ambitious Transformation program in 2014 to replace its aging, unsupported mainframe system, which failed in 2008 and triggered a DR event. Ever since, it became a risk for making timely payments to vulnerable citizens of the commonwealth. Treasury processes about 22.5 million payments totaling \$75 billion annually.

Like any modernization project, the Treasury project was very complex, with many diverse stakeholders, including all three branches of government, all statewide-elected offices, three major pension systems (State Employees, School Employees, and Municipal Retirement Systems), the Pennsylvania Higher Education Assistance Agency (quasi-governmental agency) and the Pennsylvania Liquor Control Board (PLCB) – an independent government agency – and many more.

The main strategic objectives of the project were to replace Treasury's mainframe and 25 internal systems, establish a common General Ledger account code structure across the Commonwealth, establish standard XML/Web service interfaces with all agencies, eliminate supporting paper documents for fiscal review, provide the ability to audit 100% of all payment records and more efficient cash management.

In addition to meeting these objectives, Treasury's collaboration with Comptroller Operations in the Office of the Budget helped to:

1. Convert 83 payment files across 22 agencies to conform to standard account code and SAP/PeopleSoft readable format.
2. Convert 77 legacy systems voucher transmittals, which were mostly paper transmittals, into standard electronic transaction processes.
3. Eliminate intermediate programs used to load agency files into the ERP system used by agencies under the Governor's jurisdiction (SAP), thereby eliminating the ongoing need to support .Net and Progress applications.
4. Standardize the file transfer process across agencies and ensured the Department of Human Services (DHS) has the ability to stop any payment request it deems invalid prior to either transmission to SAP or Treasury's PeopleSoft system.

The organizational change management and effective communication strategies helped Treasury to deliver the project on schedule and under budget. This project is a classic example of collaboration among 12 Comptrollers, 12 CIOs, the software product vendor, and the implementation partner.

Since the project went live in June 2014, Treasury has processed more than 10 million payments worth \$70 billion in the new system. Further, the project won Oracle's 2014 GRC (Governance Risk Control) innovation award for Treasury's innovative use of Oracle's product Advanced Controls.

Business Problem and Solution Description

For more than 30 years, the Pennsylvania Treasury was using mainframe computer systems and processes. Despite extensive technological advances since then, chronic underinvestment forced Treasury to rely on a patchwork system powered by COBOL – a computer language that is no longer of interest to 21st century programmers. In fact, most smartphones have more computing power than the systems Treasury was using to carry out its mission-critical IT functions and manage \$15 billion in state investments.

Treasury processes payments to vulnerable citizens, veterans, retirees, state employees, schools, hospitals, and businesses. Its near-obsolete system jeopardized its ability to process these payments without immediate attention and upgrades. In 2008, a mainframe failure made Treasury declare a disaster, and the Treasury team travelled to the DR site in Texas to recover data. (One of the mainframe parts was not available for more than a week.)

Although the mainframe's stability was the core issue, the scarcity of COBOL programmers to update the system to meet changing business needs and an aging workforce made replacing the mainframe inevitable. Treasury embarked on a Transformation and Modernization program with the support of the General Assembly and the Office of the Budget.

Since it was a major initiative that was going to impact every organization in the commonwealth, seven strategic goals were developed to maximize the value of this investment.

Treasury decided to split the procurement into two RFPs: one for the product and another one for the implementation partner. This decision resulted in more responses from the vendor community, thereby increasing competition and driving down the cost to Treasury. Splitting the procurement also gave Treasury the schedule flexibility to train the core project staff before the arrival of the implementation partner.

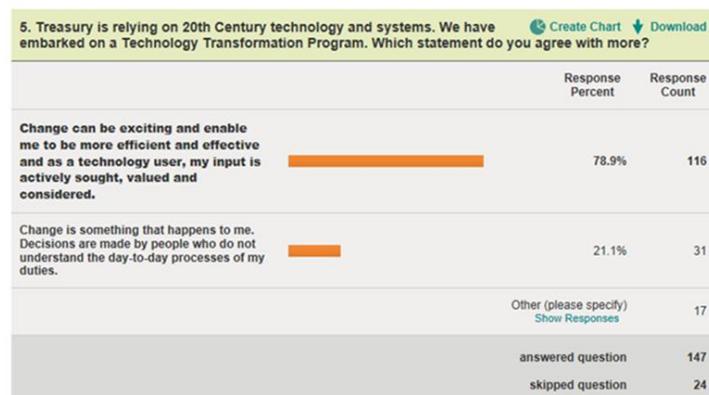
Governance Structure: Executive sponsors (Deputies/Senior staff) were responsible for providing direction, visible support, and customization control. The project sponsors (bureau directors) were responsible for day-to-day decisions, task management, change control and business process reengineering. Executive sponsorship by the deputies responsible for the bureaus that were targeted for Transformation created open and transparent communication channels. Since all deputies always worked very closely and transparently, the occurrence of miscommunication at lower levels was drastically reduced and built strong trust among the various bureaus.

Organizational Change Management Structure: The Transformation project created a change management structure across the organization and introduced the concept of Organizational Change Management, identified Change Agents from each Bureau, and trained them on their roles and responsibilities.

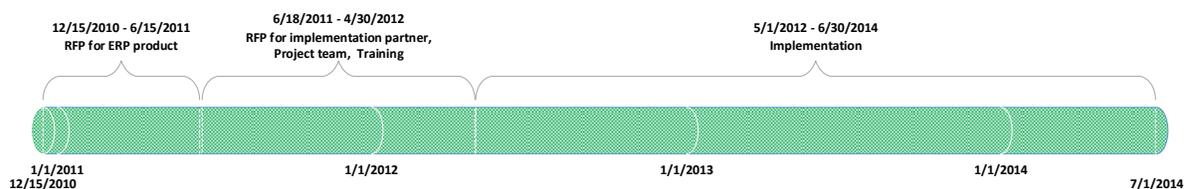
Good change management starts with teaching users the “why” and communicating it from the top tier of the organization. Once the user understands the “why”, the willingness to contribute and support the project increases. Hence, we started with one-page information sheet that went to all employees explaining the reasons for the change, who would be impacted and when it would be carried out. This helped users to understand the project and its impacts in a consistent manner. Since everybody got the same message, it cut down on rumors and increased understanding.

The project’s AS-IS and TO-BE state was defined and shared with Change Agents after getting the buy-in from bureau deputies. Everyone would like to know “What is in it for me?” Hence, the Change Agents were briefed on the impact of the change and the value it would bring to different stakeholders.

These efforts started paying off, and improved staff’s mindset of change. As the survey results indicate, 80% of the responders were very positive about changing to the new system.



Timeline:



Innovation: In fiscal year 2013, the Treasury processed 30 million payments, including payroll for government employees, supplier invoices, and tax rebates totaling \$75 billion. Treasury’s mandate is to ensure that payments are lawful and correct. Many of those payments are time sensitive, needing to be reviewed and processed in less than ten days. Further, Pennsylvania Treasury interacts with 60 state agencies, which generate a variety of data formats from more than 25 source systems.

The legacy audit system was a batch processing system, and the audit rules were hard coded. Hence, any change requested by the auditors required programming and the IT team's help, which severely constrained the auditors.

After an extensive RFP process, Pennsylvania settled on PeopleSoft financial applications with Advanced Controls, which is part of the Oracle Governance, Risk, and Compliance (GRC) management tool suite. In the marketplace, the tool was sold primarily for post payment audit functions. We identified its potential and worked with the vendor's product development team to utilize it for prepayment audit.

This innovative utilization of the tool helped Treasury to empower auditors to create rules without IT department involvement. Further, it gave them granular access to the data and the ability to audit 100% of the data instead of sampling.

Pennsylvania Treasury used a payment monitoring system that included sampling transactions based upon preset thresholds as a method to identify errors, and we are now able to look more closely at every transaction that goes through the system.

Oracle GRC suite is a big data technology application that includes graphing. This functionality helps to improve the speed at which the user can identify relationships and structure data, and build relationships very quickly. This helps auditors turn around payments faster, and Treasury has been able to maintain its service levels with an IT staff that is 22% smaller than it was a few years ago.

Pennsylvania Treasury's unique, cutting-edge use of the Oracle GRC suite led to the agency being the first to receive the new Oracle GRC Innovation Award. As per Oracle, Pennsylvania Treasury was chosen from a dozen candidates for the award because it was the "furthest along with the technology and stretching it, compared to the others."

Significance

Treasury launched this modernization project in line with Treasury's strategic goals of Consolidation and Operational reliability. This ERP project helped Treasury consolidate more than 25 internal systems. Since Treasury serves as the hub for all commonwealth payments, the project had one of the most diversified stakeholders. Direct stakeholders are all three branches of government, all statewide elected officials, three major pension systems, the Pennsylvania Higher Education Assistance Agency, and the Pennsylvania Liquor Control Board (PLCB). Indirect stakeholders are all state employees, citizens who receive benefits like unemployment compensation, medical assistance, low income energy assistance, tax refunds, all of the commonwealth vendors that provide any type of services or commodities, the IRS for tax payments, and federal, state, and local governments.

Improvement of Government Operations

1. Increased reliability: The aging mainframe lacked hardware, software, and programming support. The new ERP system increased the reliability multifold and simplified the continuity of operations planning (COOP) process.
2. Standardized account code structure across the commonwealth improved financial reporting.
3. Improved cash management of Treasury.
4. Enabled Treasury to audit 100% of payments, especially for duplicate payments across three years.
5. Improved transparency, financial reports posted on Treasury web site.
<http://www.patreasury.gov/tabs/>

Further, this project uses a big data solution to perform prepayment audits. The PA Fiscal Code requires all agencies to submit payment requests to the State Treasury and requires payment requests to be audited in accordance with Generally Accepted Auditing Standards. If the payments appear lawful and correct, Treasury will issue a warrant for payment. The GRC solution improves the business processes and allows business users to develop audit rules without the help of developers.

Benefits of the Project

In addition to meeting the original objectives mentioned in the Executive Summary, Treasury's collaboration with Comptroller Operations in the Office of the Budget helped to:

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2. Convert 77 legacy systems voucher transmittals, which were mostly paper transmittals, into standard electronic transaction processes.
3. Eliminate intermediate programs used to load agency files into SAP, thereby eliminating the ongoing need to support .Net and Progress applications.
4. Standardize the file transfer process across agencies and ensure they have the ability to stop any payment requests they deem invalid prior to transmission to either SAP or Treasury's PeopleSoft system.

Benefits to Treasury:

1. Elimination of the mainframe reduced \$38K in electricity charges.
2. Better COOP processes and disaster recovery systems due to the standard Wintel architecture.
3. Fiscal review auditors can create their audit rules without programming. This helps to improve efficiency and empower business users.
4. Consolidation of payments for the same vendor helped to reduce the check printing volume by 10%.
5. The improvements in print and mail processes helped Treasury to reduce mailing charges and increased the efficiency of its mail sorters.

6. By standardizing on 8.5" x 11" check stock, the project helped to eliminate 14" checks, which are more expensive and difficult to handle during the print process.

Other Benefits:

1. More secured transactions; data "at rest" and "in transit" is encrypted, unlike the previous mainframe system.
2. Segregation of duties internal to Treasury as well as to all partner agencies.
3. Better citizen services, since agencies can view payment status in real-time.
4. More reliability and better disaster recovery options. The Treasury mainframe was obsolete, limiting DR options.
5. Accounting for investments more closely aligns with Generally Accepted Accounting Standards by using asset accounts. The legacy mainframe considered investment purchases as expenditures and investment sales as revenue.
6. Increased transparency and accountability because each transaction in the system identifies User IDs that entered the transaction.
7. Improved visibility and auditability of transactions because each expenditure is posted to the system with its own unique identifying transaction number.
8. Less manual transaction entry of transactions, reducing duplicative keypunching effort.
9. Increased reporting capabilities via direct system access by commonwealth agencies. This permits increased visibility to transaction activity, allowing those agencies to better manage their budgets. Agency users have query access to get near-real-time updates.
10. Improved internal control by regulating system access to users via role assignments. Roles are designed to limit users' system access to the minimum needed to properly perform their job duties.

Impact of the Project: This project impacted the entire commonwealth in a very positive way. It consolidated many financial business processes, eliminated many individual systems, and standardized all interfaces to Treasury. The original budget for the Transformation program was \$42 million. Treasury completed the ERP project and many other IT modernization projects on time and \$7 million under budget. Excellent teamwork, collaboration, change management, and support from the product vendor and implementation partner were the critical success factors. This is one of the very few multimillion dollar, multiyear projects completed with \$0 in change orders.

NASCIO Priority: Treasury's ERP project is in line with NASCIO's top 10 priorities: Consolidation/Optimization, ERP, and Disaster Recovery/Business Continuity.