

BALANCING *the* TREASURY'S CHECKBOOK

If you have ever had trouble balancing your checkbook, just imagine the chore the U.S. government faces balancing billions of dollars in checks every day. However, thanks to the Federal Reserve Bank of Philadelphia, the government's job just got easier.

The Philadelphia Fed was chosen for this job because of its expertise and its past success in custom-

izing software for the Treasury. A team from Philadelphia led the U.S. Treasury Financial Management Service's (FMS) conversion from a labor-intensive paper-based check data program to an automated web-based system responsible for recording and reconciling the worldwide issuance and payment of U.S. Treasury checks.

New Features

Called the Treasury Check Information System (TCIS), this new streamlined program features enhanced

software that more easily manages bookkeeping and helps to quickly solve lost and problem check issues. It also maintains payment data for at least seven years, which means that TCIS will allow online retrieval of information on more than 1.5 billion check payments and 4 million check claims over a seven-year period.

TCIS serves more than the Treasury. Nearly 4,000 government users distribute checks through the service, such as the Department of Defense, Social Security, Internal Revenue Service, and many others.

The TCIS project spanned several years as staff from the Bank's Retail Payments and Information Technology departments joined forces to



Clockwise from left: Tom Gibbons, Group Manager, Systems Development; Ann O'Brien, Business Project Manager; Leigh Carasso, Group Manager, Systems Development; Michael Pelle, Lead Technical Specialist; Mona Wells, Lead Technical Specialist; and Gregory Fanelli, Treasury Payments Officer

replace the aging system. The nearly 20-year-old system was becoming costly to maintain and difficult to upgrade, and individuals with extensive knowledge of the system were retiring. Modernizing the mammoth mainframe database system required a comprehensive understanding of the checks business.

The Treasury's Business

It may be surprising to learn that about 99.9 percent of the Treasury's 250 million checks issued and 250 million checks paid balance to the penny. "But there is that outstanding one-tenth of a percent that can add up to millions of dollars," said Ann O'Brien, a project manager. Her assignment was to improve the software reconciliation and claims processing applications.

"The Treasury needed a system where they could quickly view their account and access it at any time. We gave them an electronic system, and no one has to touch a piece of paper," O'Brien said.

An average day in reconciliation may mean that 100 check record discrepancies need to be investigated. For each case there may be 284 possible reasons for the difference and just as many solutions to sort out. "Endless things can happen to a check, and if it happens once, you have to have software to handle it," O'Brien explains.

Encoding errors and machine misreads are among the most common reasons a check ends up in check reconciliation. Previously, dozens of three-digit codes were used to describe the claims. For new employees, finding the correct code was difficult; now it's easier to process. "We substituted words for numbers," O'Brien explained.

Having a large vocabulary is important when the software generates around 600,000 claims each year that must be individually resolved. Of these 600,000 mailed claims, approximately 60,000 are returned and processed by TCIS. TCIS is equipped to place stop payments on checks if people claim they did not receive their check. The entire process is electronic, with letters, e-mails, and outgoing files all within a click-and-pick menu.

TCIS has also improved the amount and speed at which altered or counterfeit checks are found. It leverages the Federal Reserve's image archive, which stores digital images of every Treasury check. "Although the rate of successfully detecting fraudulent checks was high with the Treasury check fraud detection system alone, it has greatly increased due to its linkage with TCIS," said Greg Fanelli, who oversaw the TCIS management team and coordinated activities with the numerous stakeholders.

"One of the challenges in the development process was how to adhere to the complex rules Treasury's claim processing requires. In addition, both the Treasury and the Federal Reserve have robust security requirements that had to be met," Fanelli said.

TCIS' developers had to recognize that more and more checks are being processed electronically since the implementation of the Check Clearing for the 21st Century Act, or Check 21. Check 21, which became effective October 2004, makes it easier for banks to electronically collect check images instead of physically transferring paper checks. Additionally, unique requirements were needed to accommodate several users, such as the U.S. Department of Defense and the U.S. Social Security Administration.

The development team knew that customizing an accounting module for TCIS would be a huge challenge. “But it was a vital part of the system and took years to refine,” said Tom Gibbons, a project manager.

Once the major software components were completed, the final hurdle was ensuring that the system would successfully integrate with related applications at Treasury. Integration, testing, data migration, performance tests, and stress tests all took months of coordinated effort among the Fed

didn’t get their checks. In fact, with one easy click on the computer, people can see the check and who endorsed it, helping to quickly resolve simple problems of miscommunication over missing check claims.

Completing the Conversion

The final phase required the team to work long hours and weekends to see their project to completion. An elaborate plan comprising several hundred steps was devised and tested five times to prepare for a smooth conversion.

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team, the FMS team, the Fed’s information technology staff, and contractors who operate the Treasury Web Application Infrastructure (TWA) on behalf of the Fed and the Treasury.

Impressive Results

The final results of TCIS were impressive. “There is just no comparison between the old and new systems,” Gibbons said. “For example, the new system has more databases online allowing users to have real-time access rather than waiting one to two days to get archived data,” he explained.

“You key in a serial number and it pulls in the check image right then and there,” said Ronald Cymbor, a director of the Treasury’s Financial Processing Division. Cymbor adds that this real-time access to files also benefits agencies because they can quickly research issues for people who report in person that they

Then on May 24, 2006, the first of 27.5 million Treasury records were transferred to the new system. Nearly 40 stakeholders from the Federal Reserve, government agencies, and vendors saw it to completion. TCIS was online for business on June 5, 2006. “Everyone gave us their all. It was a flawless conversion,” Fanelli said.

Team members agree that the new system will undergo another real-world stress test when the U.S. Treasury starts issuing IRS refunds this year. Then the amount of outgoing checks will nearly double, and related claims will increase as well.

But even outside of tax season, Philadelphia’s team is certain the new system will deliver the highest level of financial integrity. In fact, they are confident TCIS provides superior standards of reliability to take us to the next decade.