



Treasury Inspector General for Tax Administration Office of Audit

CUSTOMER ACCOUNT DATA ENGINE 2 DATABASE DEPLOYMENT IS EXPERIENCING DELAYS AND INCREASED COSTS

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Highlights

Highlights of Report Number: 2013-20-125 to the Internal Revenue Service Chief Technology Officer.

IMPACT ON TAXPAYERS

The Transition State 1 system deployment phase of the Customer Account Data Engine 2 (CADE 2) database, which included interfaces to downstream systems, was initially scheduled for implementation in September 2012. However, database deployment has been delayed, and deployment costs have risen an estimated 74 percent to \$83 million. Taxpayer service improvements that were to be provided by the new transactional database have also been delayed. Deployment delays and cost overruns can also decrease the public's confidence in the IRS's ability to develop, monitor, and use its resources effectively.

WHY TIGTA DID THE AUDIT

The overall objective was to determine whether the IRS has implemented adequate CADE 2 database downstream interface data validation to ensure that the data provided are accurate and complete. This audit is included in our Fiscal Year 2013 Annual Audit Plan and addresses the major management challenge of Modernization.

WHAT TIGTA FOUND

The CADE 2 database cross-functional triage team effectively managed and resolved more than 1,000 data defects. However, our review determined that the downstream system interfaces were not implemented due to data quality issues that exist with the CADE 2 database. The interfaces were also not implemented by the revised date of June 2013. With a revised projected implementation date of January 2014, the overall total estimated cost of Transition State 1 system deployment rose from \$47.7 million to \$83 million.

The CADE 2 database's lack of accuracy, completeness, and availability prevents it from serving as the trusted source for the downstream systems. TIGTA also determined that the solution architecture of the CADE 2 database interfaces does not meet the IRS's business needs because it does not meet performance

expectations and creates resource contention situations between servicing online transactions and query operations.

In addition, the lack of security systems integration prevents transaction-level tracking of employee access to the CADE 2 database.

WHAT TIGTA RECOMMENDED

TIGTA recommended that the Chief Technology Officer: 1) not exit Transition State 1 Milestone 5 until the interfaces with selected downstream systems are implemented into production; 2) ensure that the CADE 2 database is accurate, complete, timely, and available; 3) deploy the CADE 2 database as the transactional database architected for Transition State 2 and the Target State, as the authoritative data source for an enterprise data warehouse or a data mart, and not as a direct data source for downstream systems; and 4) ensure that user access to the CADE 2 database is traced at the transaction level by individual user's identification.

In its response to the report, the IRS agreed with one of the four recommendations and corrective action is planned. IRS management plans to certify the database is accurate, complete, timely, and available to serve as the trusted source. IRS management disagreed with the three remaining recommendations. However, TIGTA believes risks remain and provided Office of Audit Comments in the report.

READ THE FULL REPORT

To view the report, including the scope, methodology, and full IRS response, go to:

<http://www.treas.gov/tigta/auditreports/2013reports/201320125fr.pdf>.

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