

Office of Inspector General



January 24, 2001
Audit Report No. 01-003

Implementation of Release I of the
Corporate Human Resources
Information System

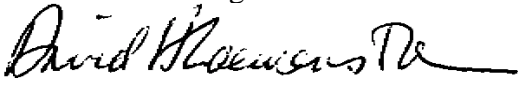




DATE: January 24, 2001

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Division of Administration

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SUBJECT: Audit of the *Implementation of Release I of the Corporate Human Resources Information System* (Audit Report No. 01-003)

The Federal Deposit Insurance Corporation's (FDIC) Office of Inspector General (OIG) has been continuing its audit involvement in the development of the Corporate Human Resources Information System (CHRIS). This interim report covers our activities related to the implementation of Release I of CHRIS. CHRIS is an integrated human resources (HR) management system that is based on the PeopleSoft Federal Human Resources Management System software. The FDIC plans for it to ultimately provide an integrated system to support all HR functions.

This is the second audit report we have issued on the CHRIS project during our proactive audit coverage of CHRIS¹. The purpose of this report is to provide management with the most recent results of our review.

BACKGROUND

HR administration encompasses a wide range of functions related to the management of personnel from the time a prospective employee applies for a position until the time that the employee leaves the Corporation. It includes establishing policies and procedures related to the recruitment, employment, classification, training, management, promotion and retirement of personnel. HR administration also includes the collection and maintenance of the data related to the employment process.

Numerous shortfalls, both technical and functional, have previously been identified with the processing of the FDIC's HR actions. The FDIC's HR function includes 14 separate HR systems

¹Report Entitled *Acquisition of Software and Services to Support the Corporate Human Resources Information System* (Audit Report No. 00-011) issued March 31, 2000.

maintained on 7 different technical platforms. Many of the systems did not comply with the FDIC's Information Technology Strategic Plan or the existing corporate hardware and software standards. Because of the outdated platforms, technology, and incomplete documentation, the Division of Administration (DOA) and the Division of Information Resources Management (DIRM) invested inordinate resources to update the existing systems to accommodate new HR initiatives brought about by legislative and regulatory changes, union agreements, and internal policy changes. The CHRIS project was initiated to address the FDIC's HR processing shortfalls. CHRIS is based on the federalized commercial-off-the-shelf (COTS) HR software package provided by PeopleSoft. PricewaterhouseCoopers was awarded the contract to perform the integration services for PeopleSoft's software. The project is being implemented incrementally using four separate releases:

- Release I: Personnel Processing and Payroll Interface
- Release II: Vacancies, Performance Management, and Labor Relations
- Release III: Training and Benefits Administration
- Release IV: Time and Labor

On March 31, 2000, we issued our report entitled *Acquisition of Software and Services to Support the Corporate Human Relations Information System*. That report discussed our review of the CHRIS project's early development activities, including the initial project planning and the award of software and services contracts to support CHRIS. Our review supported the CHRIS project team's recommendation to acquire COTS software and found that the solicitation and award process for the implementation of CHRIS was well supported and followed FDIC procurement policies.

When complete, Release I of CHRIS will (1) establish a core personnel database including organizational, position, and employee data; (2) implement a personnel action request process with workflow-enabled routing and approval; (3) provide additional capabilities including processing awards, employee actions, and executive actions as part of the personnel processing system; (4) convert data residing at the National Finance Center (NFC); (5) establish an interface between CHRIS and the NFC; and (6) provide basic operational and analytical reporting capabilities.

The FDIC's rollout strategy for CHRIS Release I was to implement the release in the FDIC's Atlanta and Memphis regions in November 2000 and to complete the corporate-wide rollout by February 2001. By November 16, 2000, the rollout for the Atlanta and Memphis regions had been successfully completed.

CHRIS project costs through November 2000 totaled approximately \$4.7 million. The CHRIS project manager estimated that the cost to complete Release I of CHRIS will be \$5.8 million. This cost is consistent with the original April 1999 CHRIS cost estimate.

OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of our overall audit of CHRIS are to ensure that the system is developed in accordance with the FDIC's system development life cycle (SDLC) methodology, meets user

requirements, provides adequate security and internal controls, and is developed in an effective and efficient manner. This interim phase of our audit applied these objectives to the development and implementation of Release I of CHRIS. We conducted this phase of our audit between April 2000 and December 2000 in accordance with generally accepted government auditing standards.

To accomplish our audit objectives, we interviewed DIRM and DOA project team members, were briefed on and evaluated the CHRIS oversight committee decisions, and reviewed SDLC documentation developed by the project team. The SDLC documentation that we reviewed included the fit-gap analysis², system integration testing results, and user acceptance testing results. We also reviewed documentation supporting the key senior management decision points that provided the authority to proceed with the CHRIS development. CHRIS project management also requested that we review and provide our suggestions on the memorandum of understanding (MOU) between the Directors of DOA and DIRM requesting that the CHRIS application be granted an interim, 1-year waiver of certain FDIC security standards. Finally, we compared the CHRIS project costs through November 2000 with those that were that were originally developed.

RESULTS OF AUDIT

The CHRIS project team successfully implemented Release I of CHRIS in FDIC's Atlanta and Memphis regions. In doing so, the project team managed costs effectively, gained user acceptance, and implemented Release I of CHRIS in a timely manner. However, the security features for Release I did not meet the FDIC's security standards for password management and system auditing and will require manual intervention to reduce risk to an acceptable level.

IMPLEMENTATION OF THE RELEASE I OF CHRIS IN ATLANTA AND MEMPHIS REGIONS WAS SUCCESSFUL BUT SECURITY IMPROVEMENTS ARE NEEDED

The CHRIS project team successfully implemented Release I of CHRIS in the Atlanta and Memphis regions by maintaining a structured process that followed SDLC procedures. During the implementation, the project team adequately oversaw the implementation contractor, actively involved the user community in the implementation process, kept senior management abreast of the progress of CHRIS, and worked closely with DIRM security personnel in mitigating certain security exposures within CHRIS.

By issuing fixed price task orders under the implementation contract, the project team was able to maintain control of the CHRIS implementation cost. We determined that CHRIS project costs through November 2000 totaled approximately \$4.7 million. The CHRIS project manager estimated that the cost to complete Release I of CHRIS will be \$5.8 million. This cost is consistent with the original April 1999 CHRIS cost estimate. The project team also kept changes to the original PeopleSoft software to a minimum. Based on the number of objects in PeopleSoft

² A Fit/Gap Analysis is a process where the project team builds a prototype COTS environment expressly for the purpose of identifying where the software does, or does not, meet user requirements. As a result of this exercise, the project team delivers a list of requirements, or gaps, that are not met by the COTS that may require customization.

software, these changes represented about eight percent of the original product. The rollout of Release I at the Atlanta and Memphis regions proceeded on time, was successfully completed, and users provided positive feedback on the implementation process.

Although certain issues regarding CHRIS security require an interim waiver from existing security requirements, the project team is in the process of developing compensating manual security controls to reduce risks to an acceptable level. The project team is also developing a detailed plan to provide automated procedures to address the CHRIS security issues.

Password Management and System Auditing Can Be Improved

DIRM's Information Security Staff (ISS) completed the CHRIS Independent Security Review (ISR) report in June 2000. In that report, ISS determined that security limitations of the PeopleSoft product caused CHRIS to not meet certain FDIC security standards. ISS stated that the limitations related to system access control measures and system auditing. Specifically, ISS found that CHRIS contained (1) no automated or manual process to identify compromises in passwords, and (2) embedded passwords that could permit unauthorized access. ISS also determined that a detailed password management policy was needed to assign specific responsibilities for monitoring and controlling CHRIS access. Additionally, ISS identified several security auditing controls that will not be satisfied by Release I of CHRIS. These missing controls include (1) a capability to monitor system use, and (2) audit trails that capture system activities. Further, system audit logs cannot be used without a performance degradation. The ISR report recommended that the CHRIS project team request a waiver of certain FDIC security standards and develop a plan for later improvements in the auditing capability. Our audit confirmed the concerns raised by ISS.

Our office assisted DOA and ISS in developing a waiver request that would be acceptable to all parties. The result was an MOU signed by DOA and DIRM management on November 14, 2000. The MOU was limited to 1-year and provided an interim solution for the CHRIS security shortfalls. In that MOU, the CHRIS project team committed to specific actions, including a test of the CHRIS audit logging function prior to the full implementation of CHRIS, the development of compensating manual controls and policies, and providing ISS with a detailed plan by March 31, 2001 that will identify how the CHRIS project team intends to comply with all applicable security standards following the expiration of the waiver. Because the CHRIS project management team is in the process of implementing the requirements of the MOU and our office will be actively involved in overseeing the development of the subsequent releases of CHRIS, we are not making any recommendations in this report.