

AUDITOR'S REPORT

CENTRAL TECHNOLOGY SERVICES' ANNUAL DISASTER RECOVERY EXERCISE MAY 2016



July 29, 2016

**Barbara J. Schott, C.P.A.
Harris County Auditor**

Mike Post, C.P.A.
Chief Assistant County Auditor
Accounting Division

Mark Ledman, C.P.A., M.P.A.
Chief Assistant County Auditor
Audit Division



1001 Preston, Suite 800
Houston, Texas 77002-1817
(713) 755-6505

FAX (713) 755-8932
Help Line (713) 755-HELP

BARBARA J. SCHOTT, C.P.A.
HARRIS COUNTY AUDITOR

July 29, 2016

Mr. Bruce High
Chief Information Officer
Central Technology Services
406 Caroline, 4th Floor
Houston, Texas 77002

RE: Central Technology Services' (CTS) Annual Disaster Recovery Exercise conducted during the week of May 23, 2016

The Audit Services Department performed procedures relative to CTS's Annual Disaster Recovery exercise. The purpose of the engagement was to evaluate whether CTS's Disaster Recovery procedures were properly executed to ensure the ability to resume operations of the County's Integrated Financial and Administrative Solution (IFAS) system's operating systems, applications, and databases in the event of a disaster. Our procedures included the following:

- Obtained an understanding of the process changes in resuming IFAS operations, and evaluated the adequacy of documented Annual Disaster Recovery Procedures for resuming IFAS operations.
- Reviewed the contractual agreement related to the use of the colocation facility at FiberTown, and determined that selected contractual terms are complied with.
- Evaluated whether the testing of the standby systems at the colocation facility by the selected IFAS module users provided reasonable assurance of the ability to resume IFAS operations in the event of a disaster.
- Determined whether selected module users could timely access IFAS system applications and process transactions.
- Selectively tested that critical IFAS security settings, security configuration tables and General Ledger tables in the production environment were accurately mirrored in the standby systems at the colocation facility upon resumption of operations.
- Evaluated the progress of implementing previously reported recommendations.

The engagement process included providing you with a combined engagement and scope letter and conducting an entrance and exit conference with your personnel. The purpose of the letter and conferences was to explain the process, identify areas of concern, describe the procedures to be performed, discuss issues identified during the engagement, and solicit suggestions for resolving the issues. A draft report was provided to you and your personnel for review.

Mr. Bruce High
Chief Information Officer

The work performed required our staff to exercise judgment in completing the scope objectives. As the procedures were not a detailed inspection of all transactions, there was a risk that error or fraud was not detected during this engagement. The official, therefore, retains the responsibility for the accuracy and completeness of their financial records and ensuring sufficient controls are in place to detect and prevent fraud.

We appreciate the time and attention provided by you and your staff during this engagement.

Sincerely,



Barbara J. Schott
County Auditor

cc: District Judges
County Judge Ed Emmett
Commissioners:
 R. Jack Cagle
 Jack Morman
 Steve Radack
 Gene Locke
Devon Anderson
Vince Ryan
William J. Jackson

TABLE OF CONTENTS

OVERVIEW	4
RESULTS	5

OVERVIEW

CTS performs a business recovery exercise annually to demonstrate the ability to continue the critical business processes and operations of IFAS operating systems, applications, and databases in the event of a disaster.

IFAS is an Enterprise Resource Planning application that is relied upon in the process of making budgetary and managerial decisions as well as pay vendors and employees. IFAS is comprised of approximately 35 modules, 1,800 system and database tables, and over 1,550 user accounts used to process, record, and report the County's financial and human resources activities. Some of the more pervasive modules used Countywide include: Security, Workflow, Person Entity, Budget, Human Resources, Daily Time Entry, Payroll, Purchasing, Accounts Payable, Encumbrance, Accounts Receivable, Fixed Assets, General Ledger, and Bank Reconciliation. The database tables store information related to individual transactions and the system tables store the security and configuration settings that define the internal controls and operating processes within IFAS.

Starting August 2013, CTS entered into an agreement with FiberTown to use its Houston data colocation center for backup and disaster recovery purposes. Per the contractual agreement, the facility must be staffed on a 24 hours a day, 7 days a week (24/7) basis with technicians from FiberTown. CTS began using this center for the 2015 business recovery exercise which focused on the restoration and resumption of IFAS operations.

In order to ensure that operations were resumed successfully and that IFAS modules were accessible, IFAS module owner representatives were notified and invited to process predetermined transactions, generate reports, and perform other functions to determine whether connectivity existed and whether the application and transaction files were properly resumed.

RESULTS

Based upon the scope procedures performed, CTS successfully resumed operations of IFAS's operating systems, applications, and databases during the Disaster Recovery exercise. Critical IFAS security settings, security configuration tables and General Ledger tables in the production environment were accurately mirrored in the standby systems at the colocation facility upon resumption of operations. In addition, connectivity between Harris County and the colocation facility was established, which allowed selected module users to timely access IFAS in order to process transactions, generate reports and perform other business operation functions, providing reasonable assurance of the ability to resume IFAS operations in the event of a disaster. Contractual terms with the colocation facility were complied with. The previously reported recommendation had been adequately addressed.