

# **AUDITOR'S REPORT**

## **CENTRAL TECHNOLOGY SERVICES' ANNUAL DISASTER RECOVERY EXERCISE JUNE 2015**



**September 18, 2015**

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**HARRIS COUNTY AUDITOR**

September 18, 2015

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

RE: Central Technology Services' (CTS) Annual Disaster Recovery Exercise conducted during the week of June 1, 2015

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 in the contractual agreement related to the use of the hot-site facility at FiberTown.
- Evaluated the progress of implementing previously reported recommendations.
- Evaluated the adequacy of documented Annual Disaster Recovery procedures for resuming IFAS operations.
- 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 hot-site facility upon resumption of operations.
- Evaluated whether the testing of the standby systems at the hot-site 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.

The engagement process included providing you with an engagement 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 examination of all transactions, there is 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.

The enclosed Auditor's Report presents the significant issues identified during our procedures, recommendations developed in conjunction with your staff, and any actions you have taken to implement the recommendations. Less significant issues and recommendations have been verbally communicated to your staff.

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  
El Franco Lee  
Jack Morman  
Steve Radack  
Devon Anderson  
Vince Ryan  
William J. Jackson

## TABLE OF CONTENTS

<b>OVERVIEW</b> .....	<b>4</b>
<b>RESULTS</b> .....	<b>5</b>
<b>ISSUES AND RECOMMENDATIONS</b> .....	<b>6</b>
<b>Supporting Documentation for User Test Results</b> .....	<b>6</b>

## 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 to make 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 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 center. In general, a hot-site is fully configured with compatible computer equipment and typically can be operational within several hours. Per the contractual agreement, the facility must be staffed on a 24x7 basis with technicians from FiberTown. CTS started using this hot-site for this year's business recovery exercise which focused on the 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

CTS appears to have 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 hot-site facility upon resumption of operations. In addition, connectivity between the County and the hot-site 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. Previously reported recommendations have been adequately addressed.

However, based upon procedures performed, it was noted that the Disaster Recovery process could be strengthened by requiring selected IFAS module owner representatives to provide supporting documentation to substantiate their test results during the Disaster Recovery exercise.

This matter is discussed further in the attached "Issues and Recommendations" matrix.

## ISSUES AND RECOMMENDATIONS

Subject	Background	Issue	Recommendation	Management Response
Supporting Documentation for User Test Results		<p>CTS did not obtain supporting documentation from 4 out of the 11 (36%) module owners to substantiate the User Acceptance Testing results.</p> <p>Although the management module owners reviewed and approved the testing results, without the supporting documentation there is minimal assurance that each module operates in the same fashion in the "Disaster Recovery" environment as it does in the "Production" environment.</p>	<p>CTS Management should require selected IFAS module owner representatives to provide supporting documentation (for example, printing out IFAS standard/CDD reports, taking screenshots, etc.) to substantiate their test results during the disaster recovery exercise.</p>	<p>CTS agrees. CTS will request supporting documentation which substantiates the departments' test results in conjunction with testing acknowledgement.</p>