Review of the Tax and License Collection and Distribution System

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Office of the County Auditor
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Executive Summary

This report presents the results of our review of the tax and license collection and distribution system (TaxSys) used by the Revenue, Taxes & Treasury Division (RTT) of the Finance and Administrative Services Department (FASD). TaxSys is the point of sale cashing system used for collecting property taxes, tourist development taxes, and fees for occupational and hunting/fishing licenses. TaxSys is the County’s first fully hosted (outsourced) system.

The purpose of our review was to evaluate vendor and County compliance with the applicable agreements and the adequacy of County-administered general system controls over TaxSys processing. We also reviewed County processes for managing the hosting relationship with the vendor, The Grant Street Group (GSG), to identify areas for improvement.

Our review disclosed:

1. General compliance with the agreed upon statement of work except that the planned interface between TaxSys and the County’s Financial System has not been fully completed.

2. General system access controls can be improved to more effectively promote the integrity of RTT processing and ensure system availability.

3. The County has not promulgated standards to ensure satisfactory performance of and adequate control over hosted systems.

We have included recommendations designed to address these issues in the findings and recommendation section of this report.

Scope, Objectives & Procedures

The scope of our review included the following:

- The Revenue, Taxes & Treasury (RTT) Division processes for using TaxSys in daily operations and management of tax and license collections and distributions during the period April to August 2011.

- The software license, system implementation and service level agreements originating with the agreement to purchase TaxSys hosted by GSG dated June 10, 2008, including amendments to purchase online auction services on March 10, 2009 and the secure remote (supplemental recovery) unit on October 23, 2009.
• General system controls over TaxSys administered by the County during the period April to August 2011. Since TaxSys is hosted remotely, our review of controls administered by GSG was limited to phone interviews and an online review of reports from third-party independent assessments of GSG and host data centers in March 2012.

Our review was designed to:

• Assess whether the host vendor, GSG, and County staff have complied with the agreement terms for the implementation and use of TaxSys;

• Determine whether general controls are in place to protect and control the accuracy and integrity of TaxSys processing; and

• Evaluate County practices for managing hosted services to identify areas for improvement.

We reviewed:

• The agreements to understand GSG and County obligations and responsibilities related to the implementation and administration of TaxSys,

• County processes for system administration and management of daily system operations, and

• Industry guidance and recommended best practices for hosting services.

Background

TaxSys is not a conventional computer system, but a software as a service (SaaS) provided by the Grant Street Group (GSG). SaaS is a software delivery method where the user (Broward County) essentially leases the rights to use software (TaxSys) from a host provider (GSG). As the SaaS provider, GSG ‘hosts’ both the TaxSys software and the County’s tax and license data at a remote site. RTT staff access TaxSys using an Internet browser and are able to use the system to conduct the daily business activities of tax and license collections locally. As our SaaS host, GSG has complete access and control of the TaxSys infrastructure (web servers, firewalls, database servers, and the GSG network), application programs (TaxSys), and County databases.

Broward County converted from the conventional legacy tax and license system to TaxSys at an initial cost of $2 million; annual hosting and licensing fees are $630,000.
RTT staff accepted TaxSys on September 30, 2009, and began collection of 2009 taxes using TaxSys shortly thereafter. TaxSys is used to maintain electronic records for taxes assessed and collected on approximately:

- 730,000 Real Property Parcels
- 81,000 Local Business Tax Accounts (Occupational Licenses)
- 91,000 Personal (Tangible) Property Accounts
- 1,300 Tourist Development Accounts

TaxSys is the automated system RTT uses to manage the following activities:

- Current and Delinquent Ad Valorem Tax Collections and Distributions
- Corrections to the Tax Roll and Refund Processing
- Personal Property Tax Collections/Enforcement
- Business Tax Receipts
- Hunting and Fishing Licenses
- Tourist Development Taxes
- Online Auctions of Tax Certificates
- Online Tax Deed Applications

Using TaxSys, RTT has been able to improve its web-based services. Taxpayers now have the ability to inquire on and pay taxes online.

TaxSys is used by other Florida tax collectors in Pinellas, Lake, Monroe, Highlands, Citrus, Volusia, Clay, Osceola, St. Lucie, Okaloosa, and Charlotte Counties. Miami-Dade County plans to implement TaxSys in 2012; currently, Broward County is Grant Street’s largest (highest volume) client.

**Findings and Recommendations**

**Finding 1 - The planned interface between TaxSys and the County’s Financial System has not been fully completed**

In our review of contract compliance, we noted general compliance with the agreed upon statement of work except for the completion of an automated interface between TaxSys and the County’s Financial system.

The agreed upon implementation services required the development of an interface between TaxSys and the County’s Financial system. An interface is a data bridge, which would allow cash receipt and distribution data originating in TaxSys to automatically post to the financial ledgers in Advantage. Without the interface, RTT staff must manually create and post complex, recurring journal entries of daily cash receipts and cash distributions to the various taxing authorities. The manual process of posting...
cash receipt and distribution entries is inefficient and more error prone than an automated interface.

RTT staff report that GSG is working with the County to develop the interface at the County’s direction.

**Recommendation**

1. We recommend the Board of County Commissioners direct the County Administrator to complete the interface between TaxSys and Advantage Financials within the next 90 days.

**Finding 2 - General system access controls can be improved to effectively promote the integrity of RTT processing and ensure system availability.**

General system controls, such as password security and access controls, promote system integrity by restricting access to only those areas of the system which an employee needs to perform his/her duties. Similarly, routine testing of recovery plans and systems helps ensure systems will be available and function appropriately, to minimize downtime in the event of a system failure or inability to connect to the host system.

In our review of general system controls administered by County RTT staff, we observed the following areas for improvement:

- Password settings for TaxSys do not fully comply with security policies established by ETS in two areas: password re-use cycles and characters required in passwords. These policies are established to promote best practices for information security, which can help prevent the misuse, denial or loss of information assets.

- TaxSys user account access does not reflect the assigned responsibilities of RTT staff. For example, the Revenue Collection Manager is responsible for approving, but not editing refunds, which is an important separation of conflicting duties. However, the manager’s TaxSys account permits access in the system to both edit and approve refunds.

We also noted that RTT has not performed routine testing of the TaxSys backup system, even though the optional services agreement provided for (3) jointly conducted failover tests annually. It is important to validate the continued viability of the backup system as a recovery option, in the event of system failure or extended service interruptions.

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**Recommendation**

2. To ensure effective general controls over the integrity of tax collections and distributions using TaxSys and the availability of the TaxSys system, we recommend the Board of County Commissioners direct the County Administrator to:

- Update TaxSys security configurations immediately to fully comply with security policies established by ETS.
- Work with GSG to review and update TaxSys ‘roles’ within the next 90 days, to ensure TaxSys access controls correspond to employee duties assigned by management.
- Perform testing of the TaxSys backup system as soon as possible and thereafter in accordance with the optional services agreement.

**Finding 3 - The County has not promulgated standards to ensure satisfactory performance of and adequate control over hosted systems.**

As noted in the background above, the TaxSys software is provided by GSG as a service (SaaS). As our SaaS host, GSG has complete access and control of the TaxSys infrastructure (web servers, firewalls, database servers, and the GSG network), application programs (TaxSys), and County databases. In this hosted arrangement, the County is reliant on GSG for system security, access, reliability and performance. Due to the nature of trust involved in hosting arrangements, careful due diligence in selecting a partner provider is essential.

TaxSys is the County’s first application system to be fully hosted by a third party. The TaxSys project has been a learning experience, from negotiations of the contract through current oversight of processing. Because this is the first system fully hosted by a third party, the county has not promulgated standards to address due diligence as well as the administration, monitoring and management issues unique to a hosted relationship.

We reviewed internal practices for managing GSG hosting services against industry guidance and best practices for managing hosting services\(^1\). We noted the following areas for improved County oversight of GSG’s hosting services:

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\(^1\) From sources including the Federal Risk and Authorization Management Program (FedRAMP, a government-wide program that provides a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services) and the Cloud Security Alliance (CSA, a not-for-profit organization coalition of industry practitioners, corporations, associations and other key stakeholders with a mission to promote the use of best practices for providing security assurance within Cloud Computing, and to provide education on the uses of Cloud Computing to help secure all other forms of computing) and The Gartner Group, a global information technology research and advisory company.
• We found no evidence to support management’s review of the details of third party controls assessments of GSG operations and data centers, to identify control deficiencies which could impact the County’s reliance on GSG and TaxSys.

• RTT staff should periodically request activity logging reports to monitor GSG activities affecting the County’s databases in the hosted environment. Periodic monitoring of reports on GSG activity would provide a pro-active mechanism for identifying unauthorized GSG activity or processing anomalies which might affect the County’s processing or reliance on GSG hosting.

• RTT staff should regularly review and monitor local site settings, which determine how TaxSys functions. Two examples of site settings include which credit cards are accepted for payment and the dollar threshold for refunds. Since GSG manages these settings, periodic reviews would be a good control mechanism to ensure continued compliance and to identify any unauthorized changes to site settings.

• RTT staff should regularly request or review performance monitoring reports, as specified by the Service Level Agreement (SLA). Performance monitoring reports provide information such as available system capacity and transaction processing times. GSG provided assurances of regular, frequent monitoring of performance metrics to ensure optimum system availability and response times. However, best practices for hosted services recommend the hosted customer also perform regular reviews of performance reports, especially during peak periods or processing, to ensure vendor performance meets agreed upon standards.

**Recommendation**

3. To mitigate the risk of relying on a host provider’s assertions and ensure sufficient oversight of hosted services, we recommend the Board of County Commissioners direct the County Administrator to promulgate standard policies and procedures in the next 90 days, based on best practices and industry guidance to address:

• Due diligence of proposals to embark on hosting arrangements, prior to entering into a long-term relationship with a host provider. The Gartner Group specifically recommends organizations consider the following as part of due diligence, to mitigate the increased risks of outsourcing systems:
  
  o Requirements and options for privacy and security, including business continuity, security monitoring, incident management, antivirus and patch management.

  o People and processes required, such as security certifications; security assessments; security personnel and training; employee screening practices; ethics, security and privacy training; and remote access.
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- The vendor’s privacy processes and practices for alerting you if any breach occurs and the provider’s privacy incident response procedures.
- Requirements for audit, procurement and legal expertise to ensure appropriate protections in contracting.

- Management oversight of hosted services, including but not limited to:
  - Required reviews of Broward site settings to ensure continued compliance with our desired parameters and to identify any unauthorized changes. Standards should establish the required documentation to substantiate the review and verification of site settings or notation of any variations between reviews.
  - Minimum reporting requirements for hosted services, such as reports on system activities performed by the host which could affect the County’s data, network or application services; and system performance metrics. Resulting standards should address the frequency of reports and level of detail needed.
  - Required reviews of third party controls assessments of the host entity’s operations and data centers to identify control deficiencies which could impact the County’s reliance on the hosted system.

- Appropriate protocols for escalation of identified concerns.