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Steve Bullock
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MEMORANDUM

To: Revenue and Transportation Interim Committee (RTIC)

From: Mike Kadas, Director 

Date: May 6, 2014

Subject: Major Information Technology (IT) Systems Used by the Department of Revenue

Introduction

At the February RTIC meeting committee members toured the Department of Revenue (DOR) tax processing facility where you observed some of our major IT software systems playing a critical role in tax administration.

As a follow-up to that tour I would like to provide you more detail about our three major IT systems and the specific role that they play in the administration of all tax types in Montana, including state income tax, state and local property tax, as well as miscellaneous tax types that include natural resource and liquor taxes.

Background

In 1997 the legislature provided the DOR with the funding to develop POINTS, a customized "built from the ground up" integrated computer system that was intended to provide comprehensive tax administration in Montana. By 2003, recognizing the failure of POINTS, the legislature authorized the DOR in SB271 to plan for and purchase a replacement IT system.

Under the authorization of SB271, the DOR, together with the state Chief Information Officer launched the Integrated Revenue Information System project (IRIS) that culminated in the purchase of the Commercial Off-the-Shelf (COTS) IT system known as GenTax, a product developed by FAST Enterprises. In just over three years, 2003 to 2006, the IRIS project allowed the DOR to shut down POINTS and begin the use of GenTax for the administration of the following tax types:

- Individual Income
- Corporate Licensing
- Liquor Taxes as well as Liquor Licensing and Distribution
- Combined Oil and Gas Tax (COGS)
- Withholding
- Rental Vehicle
- Tobacco

- Unclaimed Property
- Additional Miscellaneous Tax Types

By 2008 GenTax was expanded to include the web module Taxpayer Access Point (TAP) that allows for free, online, electronic filing by taxpayers for a large number of the above tax types.

GenTax provides for full-service integrated tax administration that serves as the primary IT system that manages the day-to-day work of the DOR Business and Income Tax Division, the Collections Bureau, the Call Center, and the Liquor Control Division.

For the administration of property taxes, the DOR historically used a combination of IT systems. Those systems included: Computer Assisted Mass Appraisal System (CAMAS), Business Equipment and Valuation System (BEVS), Utility Assessment System (UAS), Montana Ownership Database System (MODS), the Landisc System and briefly POINTS. These systems did not communicate well with each other because they were located on different computer platforms, and as the systems aged and technology advanced, maintenance and support was also not readily available or becoming obsolete.

Therefore, in 2005, the Montana Legislature authorized the funding for the DOR to purchase a new property valuation and assessment system, replacing the aging legacy architecture. Tyler Technologies was selected as the vendor for this project to implement their COTS system, Orion. System development began in November 2005 and the new Orion system was implemented in June 2007.

The first test of Orion was the 2009 reappraisal and the IT system passed that test in the face of a challenging reappraisal that included a comprehensive update of all agricultural property across Montana.

In 2009 the legislature approved funding in HB10 to allow the DOR to purchase a scanning and imaging system that would assist in converting paper filed tax processes into digital electronic data. The DOR selected the COTS system by FairFax Imaging, Inc. and by 2011 both scanning and Optical Character Recognition (OCR) processes were integrated into the DOR tax administration. OCR technology allows paper filed data to be read and "lifted" from the documents and stored digitally, eventually being transferred to the GenTax system.

So by 2014, the DOR manages three major IT software systems, GenTax, Orion, and FairFax that provide the critical backbone to tax administration in Montana. So much of the Montana tax system has been moved to electronic format that the legislature passed and the Governor signed HB 103 in the 2011 session that authorizes that the electronic version of a tax record to be the "official record" of that tax document. However, while much of the tax system has been digitized, there are still significant amounts of paper that the DOR must work with each day.

The following sections provide additional information about these three as well as other major IT systems that are critical to tax administration in Montana.

GenTax System

Start-Up Date with the DOR:

November 2003

Vendor:

FAST Enterprises

Original Acquisition Cost:

\$23.2 million

Tax Types Managed:

89 tax types are managed through GenTax

This total includes support for Liquor sales and Department of Justice.

Technological Specifications:

Environment	Application Servers (Windows Server 2008 R2)	Database Servers (Microsoft SQL Server 2012)
Dev/Test	7	3
Staging	8	3
Production	9	5

Tax Administration Functions:

Calculate business and income tax

Provide audit materials

Provide compliance capabilities

Provide fraud detection and prevention capabilities

Related Functions/Systems:

Taxpayer Access Point (TAP)

Criticality of the System:

Extreme

Number of Users:

Approximately 400

Number of Taxpayer Accounts/Records:

2,060,339

Maintenance and Support Requirements:

GenTax is supported by nine Department of Revenue staff developers, four Fast Enterprises on-site developers and off-site FAST staff through a maintenance contract. SITSD provides infrastructure support for communications, data base and application hosting.

Efficiencies:

As a COTS solution that is licensed by many agencies (currently 42 in revenue, unemployment insurance, driver licensing and control, and vehicle registration and titling), GenTax software keeps pace with and leverages technological changes and improvements in its operational platform (for example, operating systems, database management systems, and browsers) on an ongoing basis through service packs and new releases.

Similarly, GenTax embodies best practices of a wide variety of agencies so that functionality is continuously improved and expanded for all the agencies sharing the solution.

Comprehensive configurability and flexibility of the software enables agencies to react to business environment and legislative and regulatory changes quickly and safely. This same configurability and flexibility allows the software to be applied to additional lines of government business - as Montana has done over the years since initial implementation for tax and revenue.

The customer-centric view that GenTax provides helps the agency to manage customer relationships more efficiently and to provide better service to the taxpayer.

The single, integrated system of GenTax provides a consistent business paradigm and user interface that reduces usage complexity and streamlines user training.

The GenTax e-Services module has all these same attributes and provides taxpayers with easy-to-use functions that improve the service that they receive while reducing the burden on the agency.

System Complexities:

Taxes, by nature, are complex, dynamic and challenging to administer. Montana tax laws are no exception and in some cases even more complex than other states. The complexity of the tax system generates a level of risk that grows almost exponentially with the number of changes introduced, which often results in unintended faults being introduced into other areas as a result of change.

For this reason the DOR relies on contracted maintenance staff and experienced staff developers to maintain the GenTax system. Developers undergo a rigorous and lengthy learning process before being allowed access to change system operations. Change is closely monitored, documented and tested to ensure system integrity and stability throughout the process. Large scale change, such as upgrading to a new version of software, requires additional contractor staff and extensive testing by business units to certify system operations.

ORION System

Start-Up Date with the DOR:

June 2007

Vendor:

Tyler Technologies

Original Acquisition Cost:

\$4.8 million

Technological Specifications:

Environment	Application Servers (Windows Server 2008 R2)	Database Servers (Microsoft SQL Server 2008)
Dev	1	1
Test	3	3
Production	8	3

Tax Types Managed:

Property

Tax Administration Functions:

Calculate Taxable values
Maintain appraisal & Ownership information
DNRC water rights storage
County downloads (values)

Related Functions/Systems:

Orion Data Portal
Oasis (administration and processing of paper documents)
Cadastral (Geographic Information System data)

Criticality of the System:

High

Number of Users:

380+ individual users
All county revenue offices

Number of Taxpayer Accounts/Records:

1,160,000

Maintenance and Support Requirements:

The Orion application is supported by two Department of Revenue staff developers and off-site Tyler staff through a maintenance contract.

SITSD provides infrastructure support for communications, data base and application hosting.

Efficiencies:

Orion streamlines the process of gathering and processing information necessary to perform valuation on property in the state of Montana. Property types that it administers include real property (including mobile homes), personal property (business equipment), and industrial property. It also supports configuration for any potential future property types. It provides custom calculation routines necessary for the department to abide by Montana law in the valuation of property as well as a method to get that data to county governments for the purposes of tax billing. Orion provides a way to perform numerous property maintenance tasks including tracking transfer of ownership, tracking of appeals, tracking permits, and assessing tax exemptions. It also provides for various valuation methods for equitable property value assessment.

System Complexities:

Management of state property tax requires balancing market information, taxpayer input and changes in state law to value property in an equitable manner across fifty six counties. Accomplishing this requires a complex software package to provide the necessary tools for each county to accurately and fairly assess property values.

Because of this complexity, changes to the software system require extensive testing across multiple combinations of property types and counties to ensure that the desired outcome was achieved and no inadvertent variations were introduced. An additional layer of complexity is present because system changes and support are provided by offsite staff through a maintenance contract with the vendor.

FairFax System

Start-Up Date with the DOR:

August 2010

Vendor:

FairFax Imaging, Inc.

Original Acquisition Cost:

\$1.2 million

Technological Specifications:

Environment	Application Servers (Windows Server 2008 R2)
Development	1
Test/Production	3
Dell Equilogic SAN	10Tb
Database	2

IBML High Speed Scanner

Tax Types Managed:

33 tax types are scanned and imaged, while an additional 37 tax types are scanned, imaged and have data electronically lifted from the forms.

Tax Administration Functions:

Provides scanned images and data for business and income tax personnel

Related Functions/Systems:

IBML Scanners
Quick Enhance (scanning)
Quick Key (Data Keying)
Quick Review(scanning)

Criticality of the System:

High

Number of Users:

Approximately 650

Number of Taxpayer Accounts/Records:

n/a

Maintenance and Support Requirements:

The FairFax application is supported by two Department of Revenue staff developers and off-site FairFax staff through a maintenance contract.

The IBML scanners are serviced through an agreement with FairFax Imaging Inc.

SITSD provides infrastructure support for communications and data base and application hosting

Efficiencies:

The FairFax system allows for scanning and imaging of all incoming paper documents; saving the DOR paper storage and retention costs. The capture of data from paper documents can save on labor costs for manually keyed data, though the investment in programmer time to optimize accurate tax data capture can be significant.

System Complexities:

The FairFax system relies on high speed, high throughput scanners managed through the use of commercial software and custom built software tools. The system is also capable of lifting data electronically from the high speed image scans and presenting that data to users. The process of recognizing, prepping and storing the data involves a highly complex set of activities that must be closely managed.

Changes to scanned forms require modifications to software, process and preparation of forms for scanning. Implementing changes to the system require extensive testing, documentation and coordination to insure that scanned data is accurate, properly presented and consistent.

Other Related IT Systems

Start-Up Date with the DOR:

Varies by system

Vendor:

Internally developed

Technological Specifications:

Environment	Application Servers (Windows Server 2008 R2)	Database Servers (Microsoft SQL Server 2008)
Dev/Test	2	3
Production	2	3

Tax Administration Functions:

Supports general tax administration

Related Functions/Systems:

N/A

Criticality of the System(s):

Low (Legal Referral) to Extreme (US Bank File Transfer Service)

List of Systems

- County Collections
- County Extract File Transfer
- Data File Transfer
- Data Fix Request
- Downloadable Tax Form
- FairFax File Validation Tool
- FairFax Token Watcher Service
- FairFax File Delete
- GenTax Portal (DLI)
- GenTax SQL Conversion
- Guide Killer
- Inheritance Tax
- Legislative Session Tracker
- Liquor Scanner - Scanner Only
- Mobile Office Extract Tool
- OASIS
- E Stop
- One Stop Task Scheduler
- Orion Data Portal
- Performance Appraisal
- Performance Management

SABHRS Transaction Service
SABHRS Verifier
SABHRS Warrant Service
SharePoint Reader
SQL Database Overlay
SR Tracker
Tax Assistance Calculator
US Bank File Transfer Service
Workflow Manager
Dart
Ergonomic Review
FairFax
Legal Referral
Orion
Pipeline – annual tax return processing statistics
Process Maker
Public Tax Form
SAS
TAP
Tax Form Request
Apex
GenTax
Abandoned Property
Corp Tax data
Data portal service
Liquor Scanner - Desk top
Tier -1 Gaming
Combined Application (DOJ/THE DOR)
Mainframe

Number of Users:
650

Number of Taxpayer Accounts/Records:

Maintenance and Support Requirements:

The miscellaneous systems are supported by two Department of Revenue staff developers and two on-site contract developers.

SITSD provides infrastructure support for communications and data base and application hosting

Efficiencies:

Miscellaneous systems were created to enhance or directly support the DOR operations.

System Complexities:

While not as complex as business, income or property tax software the miscellaneous systems supported by the department still require the same level of documentation, testing and implementation effort. The miscellaneous systems are used to support the primary tax administration systems and in support of general administration of the department. In some cases these systems fulfill a vital role in the tax process. The file utility that transfers money each day from the department to US Bank is an example of one such system. While not a major piece of software and one that requires little to no maintenance, if it failed to function the department would not transfer money.