

**State of Texas
Department of Information Resources**



**Revenue and Sales Reporting (RASR)
Business Intelligence Platform**

NASCIO 2009 Recognition Awards

Category: Data, Information and Knowledge Management

Executive Summary

The Texas Department of Information Resources (DIR) is legislatively mandated to operate a centralized purchasing program for technology commodities and services at the state enterprise level. With a customer base of 4,650 government entities, DIR leverages the state's volume buying through its Information and Communication Technology (ICT) Cooperative Contracts program. During fiscal 2008 (9/1/07–8/31/08), **DIR customers purchased over \$1.05 billion** in technology commodities and services through the ICT Cooperative Contracts program.

Given the competitiveness, complexity and expansiveness of today's technology marketplace, DIR was not satisfied to rely solely on the state's volume buying power to provide customers with quality technology goods and services at the most cost-effective prices. DIR recognized that to truly maximize contracting value for the State of Texas, it must establish a progressive data and knowledge driven supply chain organization.

The challenge was that to effectively address the diverse needs of the customer base, DIR needed clear visibility into what was spent by whom, on which products, and with which suppliers. However, the existing data repository offered little to no analytical capabilities, had significant data reliability issues, and did not provide tools to track and measure contract performance.

The **Revenue and Sales Reporting (RASR)** project was initiated in 2007 to address these shortcomings by providing an industry standard data warehouse, business intelligence portal and contract management tool. Through the integration of highly innovative technology platforms, including Software as a Service, an enterprise database, and scalable business intelligence tools, RASR provides a cost effective solution that is functional, scalable, robust, and fungible. Today, the RASR project includes cumulative data from September 2004 forward for over 500 contracts with approximately 150,000 unique technology services and commodities.

The benefits of the RASR project are reflected in lower contract rates, more efficient contracting practices, and improved accountability over contractor performance. During fiscal 2008 DIR generated over **\$123 million in cost savings/avoidance for customers** representing a **six percent increase** over fiscal 2007. For the first half of fiscal 2009, the **cost savings have increased 34 percent** over fiscal 2008. Every dollar that DIR customers save on technology purchases is a dollar that can be spent to directly serve their constituents.

In addition, immediate performance, accuracy, and efficiency gains were recognized with the implementation of RASR. These benefits include improved contract negotiation power and contractor oversight.

Description of Business Problem and Solution

The Texas Department of Information Resources (DIR) is legislatively mandated to operate a centralized purchasing program for technology commodities and services. DIR's Information and Communications Technology (ICT) Cooperative Contracts program generates value for 4,650 eligible state agency, local government, and public education customers across Texas by leveraging the State's volume buying power and providing a streamlined purchasing process. During fiscal 2008 (9/01/07–8/31/08), DIR customers purchased over \$1.05 billion in technology commodities and services through the ICT Cooperative Contracts program.

Given the competitiveness, complexity, and expansiveness of today's technology marketplace, DIR was not satisfied to rely solely on the state's volume buying power to provide customers with quality technology goods and services at the most cost-effective prices. DIR recognized that to meet customer needs and provide value to Texas taxpayers it must be able to employ data and knowledge based supply chain management strategies based on dynamic business intelligence and market analytics.

DIR faced a primary challenge—its ability to effectively leverage the state's buying power was limited by the lack of a business intelligence technology infrastructure to support data capture, transfer, and analysis of what was spent by whom, on which products, and with which suppliers. While some raw data was available, it was housed in an antiquated system of spreadsheets and a simple database that:

- had no analytical capabilities to support effective supply chain management decisions,
- had significant data reliability issues and was not equipped to handle large volumes of data, and
- did not provide adequate reporting capabilities to measure the success of the ICT program.

Additionally, DIR needed an automated contract management system to accurately track and measure performance of the over 300 ICT contracts included in the ICT contract portfolio at that time.

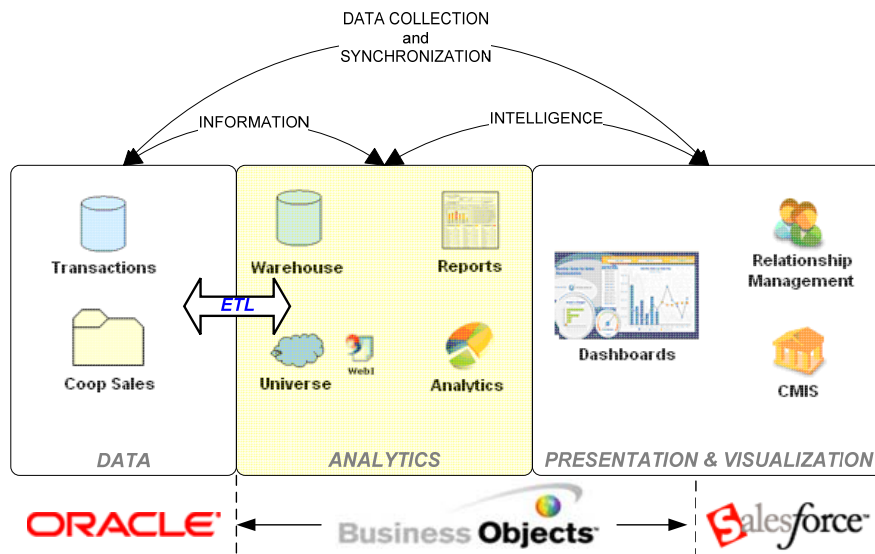
A new technology solution was critical to DIR's ability to overcome the deficiencies highlighted above. The RASR project was initiated in May 2007 and through rapid deployment techniques, was fully operational by November 2007. The RASR project addressed DIR's business intelligence needs by implementing an industry-standard data warehouse and business intelligence portal and contract management tool. The goals of the project were to provide value in the following areas:

- Scalability – technology to handle significant growth in contracts and associated data

- Validity – rules based collection and cleansing improves accuracy of data
- Agility – intelligence is quickly in the hands of decision makers
- Integrated – new and existing tools work together to provide holistic understanding
- Extensible – enterprise platforms and architecture, templated roll out approach.

Through the innovative leveraging of Salesforce.com, an Oracle database, and a suite of Business Objects tools, RASR provides a cost effective solution that is highly functional, scalable, robust, and fungible to other operations within DIR. These components are integrated as follows:

1. **Primary User Interface and Transactional System of Record –** Salesforce.com provides contract management functionality for RASR (as well as other functionality for the rest of the organization) and basic reporting. *It interfaces with the...*
2. **Data Warehouse –** a common data model is implemented for the enterprise that utilizes an Oracle database to provide a storage location for the data of interest, regardless of the data's source. It operates as a mart for the Supply Chain Management data upon which the RASR solution is primarily focused. *That data is primarily populated through an...*
3. **ETL Tool –** the Business Objects “Data Integrator” provides the ability to: pull data from multiple outside sources, validate (or invalidate) the data to ensure it meets operational requirements, populate the warehouse, maintain history of all changes, and provide an audit trail of those changes loaded into the data warehouse. The application moves beyond basic ETL and includes additional steps such as data validation cleansing and meta data management. *Ultimately, this is all leveraged through...*
4. **Business Analytics Tools –** a suite of Business Objects tools that help mine, benchmark, analyze, and ultimately report the data as meaningful information and actionable intelligence.



Today, the RASR project includes cumulative data from September 2004 forward and is currently 9.2 GB in size. The data is available for over 500 ICT contracts with approximately 150,000 unique technology services and commodities.

Significance to the Improvement of Government Operations

The primary beneficiaries/stakeholders of the outcomes of the RASR project are DIR customers, their constituents, and ultimately Texas taxpayers. DIR's customers include 4,650 eligible state agency, local government, and public education (includes both K-12 as well as higher education) customers across Texas.

In order to meet the demands of DIR's expansive customer base and drive the demand/volume that ultimately results in lower prices and better value for all customers, it was critical for DIR to have the appropriate business intelligence to make informed decisions. It was also crucial that DIR track and measure contractor performance to ensure that customers receive quality technology goods and services to meet their business needs.

With the implementation of RASR, DIR is able to establish ICT contracts that support customer's mission critical business processes and provide cost-effective prices. Every dollar that DIR saves other governmental entities is a dollar that DIR customers can spend on their core missions such as education, health care, and transportation. In addition, by using DIR's ICT Cooperative Contracts, customers are able to minimize the time and resources spent on the procurement and contracting process, thus allowing more time to be spent on direct service delivery to their constituents.

This project is innovative because the platform integrates a variety of technologies and software delivery models (e.g., Software as a Service) to deliver a highly functional, scalable, robust, and fungible solution to the DIR enterprise. For example, by adopting a web-based industry standard customer relationship management tool (Salesforce.com) to serve as a contract management system, RASR allows contract managers to easily update information within the data mart, while still providing all of the functionality of a standalone contract management solution. In addition, the cost for the entire RASR solution (software, maintenance, subscription fees, and labor costs) was less than the annual maintenance for the least expensive single purpose contract management solution DIR evaluated.

DIR's 2007 State Strategic Plan, (Plan) entitled *The Texas Transformation – Delivering Technology that Matters* establishes statewide objectives that will drive government technology transformation for the next five years. One of the primary objectives included in the Plan is to “*deliver business value and maximize buying power through integrated supply chain services.*”

Implementation of RASR is critical to DIR's successful achievement of this objective.

The implementation of the RASR tool also aligns with the top three NASCIO State CIO priorities:

- 1) Consolidation and Shared Services (Priorities #1 and #2) - The RASR tool allows DIR to effectively centralize (addresses centralization and shared services) the procurement of technology commodities and services in the State of Texas.
- 2) Budget and Cost Control (Priority #3) - By using DIR contracts, the DIR customers save money. The implementation of the RASR tool has allowed DIR to maximize the state's volume buying power, thus increasing the savings available to DIR customers

Project Benefits

By providing a business intelligence infrastructure and a robust contract management system, the RASR project has become the cornerstone of DIR's transformation from a transactional based procurement shop to a data and knowledge driven supply chain organization. The RASR tool has significantly improved DIR's ability to leverage the state's buying power and maximize the value of the technology commodities and services available through the ICT Cooperative Contracts program. The benefits are reflected in lower contract rates, more efficient and effective contracting practices, and improved accountability over contractor performance.

The primary outcome resulting from the implementation of the RASR is measured in terms of the increase in cost savings generated for the customers who purchase from the contracts as well as the increase in purchases customers make from the contracts:

- In fiscal 2008, (9/01/07–8/31/08) DIR's ICT Cooperative Contracts program generated **over \$123 million in cost savings/cost avoidance** for customers, representing a **six percent increase over fiscal 2007**. Halfway through fiscal 2009 (9/01/08–2/01/09), the ICT program has **generated \$70 million in cost savings/avoidance** for DIR customers, **an increase of 34 percent over** the same period of fiscal 2008.
- DIR customers purchased a record-breaking **\$1.05 billion** in technology commodities and services in fiscal 2008, **representing a 13 percent increase over fiscal 2007**. At the mid-point for fiscal 2009, customers had purchased **\$576 million** in technology commodities and services, representing a **16 percent increase** over the same time period for fiscal 2008.

The implementation of the RASR project has also enabled DIR to improve the quality and timeliness of internal contracting and procurement business

practices. Immediate performance, accuracy, and efficiency gains were recognized with the implementation of RASR. Selected highlights of the improved contracting and business practices are provided below:

- **Improved Contract Negotiation Power and Spend Analysis** – The RASR tools allows DIR staff to more effectively query and analyze historical purchasing data for use in demand and opportunity analysis of customer needs and to enhance the state’s bargaining power in contract negotiations. Examples include:
 - Analyze historical sales data for use in contract negotiations
 - Spot transactional trends – analyze spending patterns by product, customer, regional area, etc.
 - Identify contracts with the greatest customer value
 - Use data-driven prioritization for contracting initiatives
 - Analyze minimum/maximum cost savings

- **Improved Contractor Oversight**
 - Provides fast and easy access to data needed to accurately assess contract and vendor risks. Ongoing contract details and issues are tracked via the comments field in Salesforce.com, and provide contract managers and DIR management with real time updates on any contract.
 - Provides documented trail of vendor performance information that can be used to take appropriate enforcement actions against poorly performing vendors.

- **Provides Central Repository for ICT Cooperative Contracts Information**

The RASR (Salesforce.com component) is used as the central repository for all ICT contract information. Having all contract files and associated documents in a central location allows multiple individuals to have simultaneous access to contract information in a virtual file cabinet and eliminates the need for routing and distribution of a hard copy contract file. RASR provides a tool for contract managers to track and measure workload, allowing for reallocation of contracting resources as workload fluctuates.

- **Improved Access to Contract Data** – The RASR tool provides DIR with self-service reporting, online analytical processing capabilities, and dashboard functionality (through the Business Object suite of tools) This functionality provides the ability to respond to requests from internal management, public citizens (open record requests) quickly and accurately.

- **Enhanced Reporting Capabilities** – The RASR tool (through the Business Objects component) is used to generate two monthly publications for use by DIR executive leadership and contract managers. The *Graybook* provides over 50 pages of graphs and provides an analysis of year to date trends. The *Contract Atlas* provides details of contract performance for each of the over 500 contracts.