Shared Results

Strengthening the Enterprise

2006 BIENNIAL PERFORMANCE REPORT ON THE USE OF
INFORMATION RESOURCES TECHNOLOGIES
BY TEXAS STATE GOVERNMENT

NOVEMBER 1, 2006

Message from the State's Chief Technology Officer

November 1, 2006

Texas government has taken the first steps toward establishing a statewide technology enterprise. The Texas Legislature set a solid foundation for this transformation through major technology legislation in its 79th session. The state has made notable progress in guiding this transformation and will continue delivering results through the next biennium. Our successful outcomes are directly linked to three core principles we apply to all of our strategic initiatives—a business approach, a collaborative environment, and accountability for results.

The Texas Legislature has consistently communicated the need for efficient management of the state's approximately $1.9 billion investment in technology. The ability of state government to effectively deliver value-driven services to Texas citizens and responsibly manage its technology investment requires ongoing commitment and accountability from all agencies, including DIR.

Shared Success, the 2005 State Strategic Plan for Information Resources Management, described the state's enterprise approach to managing its technology resources. This 2006 Biennial Performance Report presents outcomes from our *Shared Success* initiatives both at DIR and at state agencies and institutions of higher education.

DIR is committed to making technology deliver on its potential in Texas. We stand ready to work with all facets of state and local government to more effectively leverage statewide investments in technology.

Thank you for your continued support. I look forward to working with you in the future.

Larry A. Olson
Texas Department of Information Resources

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ABOUT THIS REPORT

The Information Resources Management Act requires the Texas Department of Information Resources to prepare and submit to the Governor and to the Legislature a biennial performance report on the use of information resources technologies by state government (Texas Government Code §) 2054.055.

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Note: For the purposes of this report, the term "state agency" is used to indicate a state agency or a state institution of higher education; the term "technology" is used to indicate "information and communications technologies."

SECTION 1

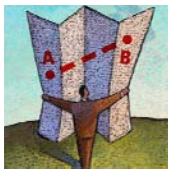
Enterprise Transformation

The 79th Texas Legislature signaled a clear mandate to restructure roles and responsibilities for the state's investment in information and communications technology. The Information Resources Management Act—Chapter 2054, Texas Government Code (TGC § 2054)—was restructured through enactment of several technology bills. The new laws provide the basic tools to strengthen the enterprise and establish the foundation for a shared technology infrastructure that will improve the delivery of state services to citizens.

Texas has made substantial progress toward fulfilling the vision of leadership; however, several opportunities and challenges remain that must be addressed to advance the state's current capabilities. These include the following:

1. **Ensure the security of critical information and data.** Safeguarding the state's data and information resources is a shared responsibility that requires continuous, coordinated, and focused efforts. Texas state government's infrastructure is a critical resource and additional provisions will ensure that it remains functional and secure.

2. **Improve state procurement and contract management.** Texas already wields substantial purchasing power and can improve that position through new competitive contracting methods. By enhancing the Technology Cooperative Contracts program, state agencies will benefit through improved goods and services at reduced costs.



3. **Evaluate options for statewide enterprise resource planning implementation.** All state agencies are required to manage finances and human resources using sound business principles. Implementation standards and a statewide plan can improve the alignment of budgeting and expenditure reporting across the enterprise.

4. **Improve methods for collecting, reporting, and sharing technology information.** Coordinated strategies and data collection methods will ensure that oversight agencies collect the information needed to effectively manage the state's technology investment, while reducing the burden on state agencies for reporting redundant information.

5. **Set the stage for the next generation of online business and citizen services.** The TexasOnline.com infrastructure, which provides the online face of state agencies and local governmental entities, must be adaptable and capable of acting on opportunities to benefit citizens and businesses.

Implementing the recommendations related to these critical issues will enable Texas to move forward as a unified enterprise. This enterprise transformation will advance the state's ability to manage and leverage its resources and protect its assets, enabling agencies to focus on their core missions to better serve Texans. Each issue is detailed in *Section 2*.

Statewide Vision and Strategic Goals

The State of Texas' goals and objectives for information resources management are presented in *Shared Success,* the 2005 State Strategic Plan for Information Resources Management. *Shared Success* articulates the vision that fulfills the mandate from Texas leadership to establish an enterprise approach for managing the state's technology investment. To realize this vision the state must achieve these strategic goals:

- reduce government costs,
- drive effective technology contracting,
- leverage shared technology operations,
- promote innovative use of technology that adds value, and
- protect technology and information assets.

In developing *Shared Success*, DIR collaborated with stakeholders from state and local governments, higher and public education, the private sector, and other stakeholders. The key objective was to align the use of technology with the Governor's stated vision of "ensuring that state government is limited, efficient, and completely accountable."[1] This includes streamlining technology management and maximizing the state's investment in technology hardware, software, services, data, and personnel.

Shared Success emphasizes that Texas must fully leverage its information and communications technology (referred to collectively as *technology* for the purposes of this report) investments and resources to meet its statewide goals. An enterprise approach establishes a shared technology infrastructure, where appropriate; fosters a collaborative environment to develop, implement, and share best practices; and promotes agencies' ability to deliver business value through innovative technology solutions.

The Texas Model

Shared success is realized when technology resources can be effectively leveraged across all sectors of government—including state agencies, public schools, and other political subdivisions. The Texas Model of the Enterprise, depicted in *Figure 1*, provides a paradigm for managing the state's investment in technology in a way that is fully aligned with the state's business goals.

Figure 1. Texas Model of the Enterprise

The Texas Model is composed of three distinct but unified layers: statewide infrastructure, collaboration, and agency. The statewide infrastructure layer establishes shared statewide resources to leverage in the delivery of technology programs and services. Similar to utilities, these operational services are needed by all agencies; they are not unique or specific to an individual agency. A key initiative in the statewide infrastructure layer is the state data center services initiative, effectively fulfilling a long-standing directive from the Texas Legislature (see *Appendix A, Data Center Services—A Case Study*).

The collaboration layer builds on the statewide infrastructure layer. This layer establishes the programs, standards, and practices that guide the use of technology across the enterprise. By supporting the shared development of guidelines and best practices, this layer establishes a common basis for collaboration, interoperability, and reuse among state agencies. Key initiatives underway within the collaboration layer include the Texas Project Delivery Framework, the Enterprise Architecture/Service-Oriented Architecture program, and the Streamlined Reporting initiative.

Leveraging the two preceding layers, the most important part of the model is the agency layer. This layer contains the unique functions and services that each agency manages to successfully support its mission. Innovative solutions, developed at the agency level, must meet the policy goals of state leaders and deliver real value to Texans.

Together, the layers of the Texas Model of the Enterprise support the state's vision for effective technology planning and service delivery. *Shared Success* presents the strategic goals, business-driven strategies, and statewide objectives, each aligned to a layer of the Texas Model. These statewide objectives and strategies form a roadmap for Texas government to plan for the essential resources needed to realize its shared vision.

Core Principles

As Texas government moves to this new technology planning and service delivery model, successful enterprise transformation depends firmly on three core principles:

- Business-driven approach
  Adopting sound, proven business practices to drive real value that is aligned with statewide strategic goals and objectives.
- Collaboration
  Engaging stakeholders to maximize resources, knowledge, and expertise that is shared across the enterprise.
- Accountability
  Applying a consistent method for assessing outcomes against clearly defined benchmarks for successful project execution.

These principles will be advanced through clear commitments, open and honest communication, and a collaborative approach that leverages the best and brightest minds across agencies, institutions of higher education, city and county governments, the public education community, and the private sector.

Examples of how each of these core principles is applied to the statewide objectives and strategies are provided in *Section 3*.

Progress

In fiscal 2006, the state made significant progress toward enterprise transformation through the following key initiatives:

- Data Center Services

  Shared data center services will leverage economies of scale, improve security and disaster recovery capability, yet maintain or improve existing service levels and reduce costs. This project has adopted an industry-proven approach and, with the active involvement of participating agencies, has met all major milestones with on-time deliverables. It has established and documented a process to compare current costs with vendor-proposed costs to determine the best value for the state. Details on the progress of this initiative are presented in *Appendix A*.

- Information Security

  DIR initiated cost-recovery operations as part of the consolidated network security system. The buildout for the Network and Security Operations Center (NSOC) is ahead of schedule.

- Network Communications

  The shared, statewide Internet protocol (IP) communications platform is an important first step in providing state-managed network services that enable agencies and other eligible customers to improve and expand data, voice, and video services.

- Shared Applications

  TexasOnline.com, recognized as the number one state government Web site in the nation, implemented over 80 new services in fiscal 2006. Another shared application, the enterprise messaging (e-mail) contract—which provides Texas state agencies and other publicly-funded organizations with high-performance, managed messaging and collaboration services—was executed in March 2006.

- Technology Commodity Procurements

  Technology contract renegotiations continued to increase statewide savings—$96.2 million in customer savings was identified and $68.0 million in actual savings was realized.

- Project Delivery

  The Texas Project Delivery Framework, a uniform approach for improving the management of and accountability for the state's technology investments, deployed a new gated review process with structured templates and guidance.

- State Reviews

  DIR convened a Technology Information Alignment Committee to improve technology management, including more effective strategic planning, budgeting, and reporting of technology expenditures, assets, and projects.

- Data Management and Access

  DIR collaborated with other state agencies to publish best practices in data and electronic records management, developed administrative rules and guidelines to increase the accessibility and usability of state Web sites, and adopted rules protecting government information from inadvertent disclosure as a consequence of equipment disposal.

Critical Issues

Today's most pressing challenges to delivering the maximum benefit from dollars invested in technology are presented in this section, with recommendations for consideration by the Texas Legislature.

Issue 1.
Ensure the Security of Critical Information and Data

The security of information and communications technology resources, which includes both the physical and logical security of the state's data systems and networks, is a shared responsibility that requires continuous, coordinated, and focused efforts. The *Texas Homeland Security Strategic Plan, 2005–2010,* defines "critical infrastructure" as "physical or cyber assets so vital that their incapacity or destruction would have a debilitating impact on security, national economic security or national public health or safety." Texas state government's infrastructure is a critical resource that must remain functional and secure at all times.

For most business and government organizations, major computer security incidents with significant financial and operational impacts are becoming, unfortunately, common occurrences. In spite of this, information security is often a low priority for agencies in developing their budgets. This puts the state's critical technology resources at risk because a higher level of recognition is needed to ensure their safety and security. Improvements to the state's information and network security programs are needed to reduce the vulnerability of the state's infrastructure to attacks, which are increasing in number, complexity, and severity.

RECOMMENDATIONS

1.1 Improve the State's Capacity to Identify and Address Security Threats

Over 19 million security-related incidents were detected and reported to DIR by state entities during fiscal 2006. Incidents included attempted virus infections, malicious code implants, attempts of unauthorized access (from internal and external sources), information or equipment theft, intentional network disruptions, Web defacements, and security policy violations. Virus- and worm-related incidents accounted for the majority of incidents reported. As a result of effective detection and antivirus measures, reported actual infections were limited to 22,030 desktop computers and servers. While the scope of actual infections was minimized, state entities nonetheless expended more than 8,400 hours in remediation efforts, at an estimated cost of approximately $1.9 million.

To cope with these and other information security attacks, DIR and state agencies must work together to constantly identify and assess vulnerabilities and remediate potential risks to keep the state's networks open, operational, and secure. These efforts include regular risk assessments, vulnerability testing, proactive remediation, and more timely and complete reporting of computer security incidents.

Require Vulnerability Assessments and Reports

Information security is a fundamental management responsibility of all state agencies. Agency heads are ultimately responsible for the safety and security of all technology resources that are entrusted to their care. To meet this responsibility, agencies must regularly assess their operations to identify vulnerabilities and reduce risks.

The Network and Security Operations Center at DIR conducts external vulnerability assessments, including external network penetration testing, to evaluate technology security threats that originate from outside agencies' internal networks. NSOC will provide external vulnerability assessments at no cost to state agencies to the extent practicable.

1.1.1 Require the agency official responsible for information security to report the results of any network vulnerability and risk assessments that the agency conducts to the agency head and the state's Chief Technology Officer (CTO).

1.1.2 Require state agencies and other eligible entities to use NSOC external vulnerability assessment services annually unless exempted by the state's CTO.

1.1.3 Require state agencies to submit comprehensive reports of both suspected and confirmed security breaches to DIR to enable the analysis of security breach patterns and detection of security vulnerabilities across the state.

1.1.4 Extend the authorization to conduct a confidential statewide assessment for state leadership on technology security resources and practices on a biennial basis.

Increase Security Levels for Data and Information

The proliferation of mobile devices such as laptops and personal digital assistants has increased the ability of remote users to access the same resources that local users find on their desktop computers. Small, high-capacity storage media devices leveraging the Universal Serial Bus interface, such as memory sticks and flash drives, also expose large volumes of sensitive data to loss or theft due to the risk of rapid download and transport outside of secure environments. A number of highly publicized incidents have involved poor security practices and technology implementation for mobile devices.

For these systems, security is often a challenge because mobile devices have poor security when access to internal network resources is not sufficiently guarded. Many entities do not actively protect or even monitor this rapidly expanding mobile computing and storage capability, leaving them highly vulnerable to costly attacks or misuse such as those suffered by the U.S. Veteran's Administration, U.S. Census Bureau, several state universities, and other government organizations.

1.1.5 Require agencies to address procedural and technical standards and requirements for mobile computing security. Options and cost requirements would be developed following publication of the rules to support agencies in establishing appropriate security solutions that meet state and national standards.

Maintain the Integrity of Critical Security Information

The DIR Board of Directors has responsibility for adoption of administrative rules related to statewide information and communications technology security issues. The Open Meetings Act, however, has no provision to allow the board to meet in executive session to discuss security issues. This means agency staff cannot provide confidential information related to network security to the board without also increasing the risk to state information and communications technology systems and data through the inappropriate release of data that is classified as restricted information (TGC § 2059.055).

Protecting sensitive information of this type, by allowing the board to meet in executive session to hear security information, would enable the board to make informed decisions based on documented threats to the state's critical infrastructure without the risk that this information could fall into the hands of criminals or terrorists. Additionally, informing appropriate prospective vendors about these same issues through limited disclosure would enable accurate cost estimates for security-related bid requests.

While DIR has the authority to conduct criminal background checks on potential or current employees, this authority is limited to technical staff. Studies show that 20 to 30 percent of insider misconduct originates with employees who have prior criminal records—and most of these do not have advanced technical skills or privileged technology access. Other agencies, including the Lottery Commission and school districts, are authorized to conduct criminal background checks on all employees.

1.1.6 Authorize the DIR Board to meet in executive session to discuss confidential network security issues and related information that is defined as restricted information.

1.1.7 Authorize DIR to disclose limited confidential network security information to certain prospective vendors involved in selected procurements that have met DIR requirements and security screening standards. Any such disclosure would be of limited duration, would remain the property of the state, and would be secured to prevent unauthorized release.

1.1.8 Authorize DIR to obtain criminal history record information on all DIR employees, applicants for employment, interns, volunteers, and contractors.

1.2 Standardize Security Levels for the State's Technology Infrastructure

A consistent, enterprise approach is needed to protect sensitive government and personal information and its associated infrastructure. A critical area of attention is the secure management of applications and databases, as well as the physical machines where they reside. Protection of these assets from physical and network based attack, as well provisions to provide business continuity in the case of disasters, is of paramount importance. In order to protect these assets and the data that they store and transmit, Texas requires unified security objectives that provide consistent controls across all agencies.

Establish Standards to Identify and Protect Sensitive Data and Infrastructure

One key element of protecting the state's technology infrastructure is to ensure that agencies identify and implement standards to secure sensitive information, such as personally identifiable information.

1.2.1 Require agencies to perform risk assessments that identify databases and applications that contain sensitive data and to establish security procedures to protect this data from unauthorized access.

1.2.2 Require that all agency servers and mainframes that contain sensitive data reside in environments that meet or exceed security and disaster recovery standards established by the department by January 31, 2008, to be implemented by January 31, 2010. Authorize the state's CTO to establish alternative provisions for certain classes or instances of servers or mainframes in development of these standards.

Issue 2.
Improve State Procurement and Contract Management

Texas wields substantial purchasing power in the marketplace and must constantly look for new competitive contracting methods that ensure successful results.

State law includes a number of provisions that address procurement requirements and processes. For example, major state contracts for goods and services are required to include performance measures. In addition, statute has established the Contract Advisory Team to review agency requests for major contract solicitations to ensure that planning and contract formation practices are properly considered.

While many contracting responsibilities appropriately reside at the agency level, tools established by the 79th Legislature, including the Texas Project Delivery Framework, provide processes that could further support agencies in developing more effective procurement practices and contracts.

RECOMMENDATIONS

2.1 Expand the Benefits of the Technology Cooperative Contracts Program

State law holds DIR accountable for all technology purchasing in the state (TGC § 2157). However, some state functions related to this responsibility have not yet been transferred to DIR. Consolidating these functions would enable the Technology Cooperative Contracts program to meet its full potential to save state dollars and improve the quality of commodities and services provided to customers.

Transfer all Technology-Specific Procurement Authority to DIR

The Catalog Information System Vendor (CISV) program is a technology-specific listing of vendors that are eligible to provide goods and services to public entities. The Texas Multiple Award Schedule (TxMAS) program adapts existing, competitively-awarded government contracts, either federal or any other governmental entity in any state, to the procurement needs of Texas government. Although the 79th Legislature placed technology procurement responsibility at DIR, both the CISV program and the technology portion of TxMAS remained at the Texas Building and Procurement Commission (TBPC).

2.1.1 Transfer authority for managing and operating the CISV program and the technology portion of TxMAS to DIR as part of its overall technology procurement responsibilities.

2.1.2 Authorize DIR to modify or eliminate the CISV and TxMAS functions and develop administrative rules as necessary to support an integrated state technology procurement process.

Expand Eligibility for the Technology Cooperative Contracts Program

Although nonprofit organizations are eligible to purchase commodities and services through TBPC, they are not eligible to purchase technology commodities through DIR's Technology Cooperative Contracts program.

2.1.3 Authorize nonprofit organizations to purchase technology goods and services through the Technology Cooperative Contracts program. Limit eligibility to nonprofit entities defined as assistance organizations by TGC § 2175.001.

2.2 Improve the Planning and Execution of Certain Major State Contracts

The Texas Project Delivery Framework consists of five review gates with guidance and tools for each gate. Framework tools support the development of measurable outcomes and effective performance standards.

Framework requirements apply to major technology projects, but not to business process outsourcing contracts. In these contracts, the provider is responsible for performing and managing the outsourced function or process on behalf of the customer.

Apply Texas Project Delivery Framework Principles to Additional Major Contracts

By leveraging the tools and processes of the Framework for multi-year contracts with multiple deliverables, agencies will be equipped to better plan, procure, and manage contracts with substantial complexity.

Before agencies can spend a significant amount of money on major technology projects, state law requires that a plan be developed and approved at the agency level, and submitted to the Quality Assurance Team and TBPC. This accountability provision ensures appropriate planning is done early in the process, prior to solicitation of a vendor.

2.2.1 Extend specific requirements for planning, solicitation, and contracting tools used for technology projects to major state contracts for business process outsourcing, regardless of whether the business services include a major information resources project component.

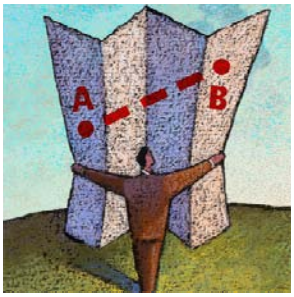
2.2.2 Require the Contract Advisory Team to develop standards that include the use of appropriate Framework elements to support effective contracting.

Create State Training for Competitive Sourcing Strategies

The Technology Cooperative Contracts program has documented a reduction in costs to customers by streamlining procurement processes and negotiating lower rates for technology commodities and services. By using new sourcing strategies and related tools, contract managers can better leverage planning, evaluation strategies, and competitive intelligence to help lower costs for technology goods and services.

The *State of Texas Contract Management Guide* identifies the key factors associated with contract planning, procurement, rate/price establishment, and oversight.[2] More can be done to provide enhanced training to enable innovative practices in state procurements.

2.2.3 Require the Contract Advisory Team to develop contract manager training requirements on the use and application of advanced sourcing strategies, techniques, and tools.



Issue 3.
Evaluate Options for Statewide Enterprise Resource Planning Implementation

All state agencies, as stewards of public funds, are required to manage finances and human resources in a way that supports sound business principles. State law requires agencies to report their expenditures in a format established by the Comptroller of Public Accounts (CPA), using the Uniform Statewide Accounting System (USAS), developed in 1993.

Many agencies use USAS as their primary accounting system, while some have implemented agency-specific solutions that require unique development and production environments. Over time, these customized solutions have proven to be costly because each agency must maintain its own modifications. These customizations make statewide analysis and coordination increasingly difficult.

Enterprise Resource Planning (ERP) is the term that refers to systems that integrate financial and human resources across the enterprise. Each of these areas typically includes robust functionality as outlined below:

- Human Resources management includes employee benefits, applicant tracking, position control, leave accounting, and payroll.
- Financial management includes requisitioning and purchasing of goods and services, and generally addresses full financial life cycles from budget through financial statement reporting.

Industry consolidation by major ERP software vendors threatens the viability of maintaining existing agency ERP applications because key state software applications may no longer be supported beyond the next five years. Texas must be prepared for this contingency.

RECOMMENDATIONS

3.1 Establish Uniform Standards to Improve State Reporting

The fact that agencies manage information in different systems and formats using various terminology limits the state's ability to reconcile data needed to effectively administer human resources and financial initiatives. Without comprehensive, uniform standards in place, analysts are often required to piece together the information from different systems and databases to analyze and report this data. Development of applications is managed at an agency level and coordination among agencies is voluntary.

Establish Standards for ERP Implementations or Modifications

While the CPA has existing authority to establish reporting requirements and direct replacement of certain systems, clearer standard-setting authority will move the state forward during this time of rapid ERP software vendor consolidation.

3.1.1 Amend current statute (TGC § 2101.036) to grant specific rule-making authority to the Comptroller to prescribe standards for agency ERP implementations or modifications in accordance with uniform accounting and financial reporting procedures.

Establish a Statewide Plan for ERP Implementation

A statewide ERP solution would include a blueprint for the entire government enterprise to improve alignment between budgeting and expenditure reporting and help identify problems, risks, and opportunities for reducing costs related to financial, accounting, and human resources systems and processes. It would also help agencies integrate and consolidate agency business functions such as financial and human resources management, and allow them to better collect, analyze, and share critical information and data.

3.1.2 Authorize the Comptroller to create and publish a Statewide Enterprise Resource Management Plan that documents key requirements, constraints, and alternative approaches. Require agencies to provide any information needed by the Comptroller to develop this plan.

3.1.3 Establish an ERP advisory group, led by the Comptroller and including DIR, the Health and Human Services Commission (HHSC), and other key stakeholders, to help develop a vision and approach related to the plan.

Issue 4.
Improve Methods for Collecting, Reporting, and Sharing Technology Information

The *Statewide Technology Management: Opportunities for Improvement* report mandated by the 79th Legislature showed that technology data collection and reporting are not aligned in a way that supports the need for comprehensive, timely information on technology assets, projects, and expenditures.[3] *Figure 2* illustrates the complexity of the current reporting environment in contrast to the streamlined model that will result from the implementation of strategic and key actions outlined in this report.

The report called for the creation of a Technology Information Alignment Committee, which has convened to find ways to standardize statewide technology information data models, collection methods, and reporting processes. The committee comprises representatives from DIR, the Office of the Governor, the Legislative Budget Board (LBB), the CPA, TBPC, and the State Auditor's Office (SAO).

The committee has begun to analyze how the data is collected and reported, and is conducting work sessions on the standardization of the data and processes. The vision is to "collect once, use often." By doing so, the state will eliminate redundant data collection and improve the value of technology information at all levels of state government.

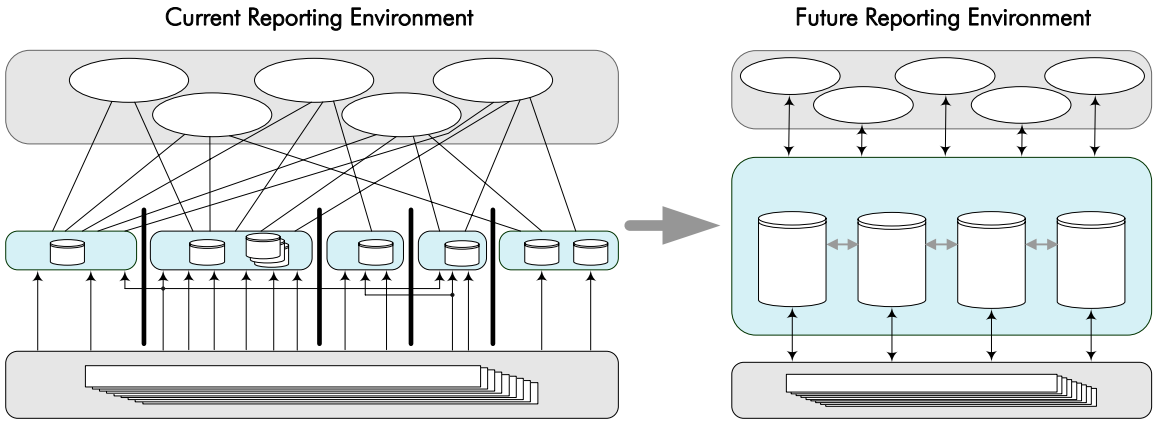


Figure 2. Technology Data Collection and Reporting (from DIR's 2005 *Statewide Technology Management* report, p. 21)

RECOMMENDATIONS

4.1 Coordinate the Collection and Reporting of Technology Information

Technology information held by government resides in abundant quantities, in multiple versions, and in various formats within mainframes, network servers, desktop hard drives, e-mail systems, and mobile devices. Coordinated strategies and data collection tools are needed to ensure that oversight agencies collect the information most useful to technology management, while limiting the burden on state agencies for reporting redundant information.

Clarify and Simplify Technology Data Collection

Oversight agencies' systems and data collection methods could be better coordinated to ensure that state leadership has the necessary information to evaluate the overall impact of technology projects, initiatives, and operations.

4.1.1 Require DIR, in coordination with Technology Information Alignment Committee members, to coordinate efforts to establish data-sharing methods that improve the ability of oversight agencies to share relevant technology information, utilize common terms, and modify existing systems as needed to support streamlined data collection.

4.1.2 Extend the existing requirement that DIR report to state leadership on progress toward streamlined reporting goals on a biennial basis.

Reduce the Reporting Burden on State Agencies

State agencies are required to periodically submit technology-related data to the state using at least 23 reporting instruments, some of which are submitted in formats that do not support effective analysis.

4.1.3 Require DIR, in coordination with Technology Information Alignment Committee members, to coordinate efforts to establish processes and Web-based reporting tools that enable agencies to submit technology reports online and support advanced analytics.

4.2 Improve Technology Strategic Planning and Performance Reporting

Strategic planning and performance reporting requirements are housed at various oversight agencies and are not integrated among the various reporting instruments. The sequence of reporting deadlines requires agencies to complete—within a very limited time period just prior to each regular legislative session—the following: agency strategic plans to LBB and the Governor's Office; legislative appropriations requests and information technology details to LBB; and information resources strategic plans and business case templates associated with the Framework to LBB, SAO, and DIR.

Modify Reporting Requirements to Improve Strategic Planning

The Governor's Office and the LBB jointly prepare instructions for agency strategic plans, which agencies must complete and submit biennially. While this plan is not specifically technology-related, it does require agencies to engage in a strategic planning process that articulates the primary factors affecting the agencies and identifies their long-term goals.

4.2.1 Reintegrate agency information resources strategic plan instructions with the agency strategic plan instructions and consider earlier sequencing of agency strategic plans.

4.2.2 Authorize DIR to collect agency information related to technology assets and compliance during odd-numbered years to reduce the bottleneck of reports prior to legislative sessions.

Improve Project Planning and Evaluation

The Quality Assurance Team relies heavily on the Texas Project Delivery Framework to perform quality assurance reviews of technology projects. Current statute that requires state agencies to complete internal quality assurance procedures is outdated and inadequate for integration of the Framework with agency-level project management practices.

4.2.3 Eliminate existing quality assurance and project management statutes that are not consistent with the Texas Project Delivery Framework and develop an integrated replacement.

Consolidate Technology Performance Reporting

The Biennial Performance Report should include all technology-related performance reporting required in statute to the extent possible.

4.2.4 Consolidate technology performance reporting requirements into the Biennial Performance Report, including the TexasOnline.com and E-Learning biennial reports, and statutorily-required security reports.

4.2.5 Transfer strategic planning and performance reporting requirements related to telecommunications to the State Strategic Plan and Biennial Performance Report, respectively, and re-charter the Telecommunications Planning and Oversight Council as a customer advisory body.

Issue 5.
Set the Stage for the Next Generation of Online Business and Citizen Services

At the direction of the Texas Legislature, TexasOnline.com provides online services to citizens, businesses, state agencies, and local governments through a collaborative effort across all levels of government. Although TexasOnline.com received the top overall state e-government rating in the nation based on a comprehensive analysis of more than 1,500 Web sites by Brown University,[4] the vision for the future is to further expand options for state agencies and local governments to interact with citizens.

To reach more citizens with vital information about government benefits and opportunities, the TexasOnline.com infrastructure will need to be even more adaptable and capable of acting on new opportunities to benefit citizens, state agencies, and local governmental entities.

In support of this vision, DIR will initiate the reprocurement for TexasOnline.com services in 2007. The new contract will have a projected execution date of June 2009. To ensure maximum benefit, DIR will collaborate with state agencies, local governments, and other stakeholders to meet the expectations of the Legislature and Texas citizens.

RECOMMENDATIONS

5.1 Integrate Payment Options for Citizens

State law requires agencies to use a common e-payment system established by TexasOnline.com when conducting transactions online. Because this system has not been officially extended to support offline transactions, citizens have different experiences online and in person, and in many cases, agencies have to support multiple, redundant payment systems.

A common, proven, standards-based system that can provide for both offline and online transactions will also allow for better management of citizens' personal information in a single, secure environment.

Establish the E-Payment System as an Option for all Credit Transactions
An expanded e-payment system would simplify steps for agencies and improve a citizen's experience with government.

5.1.1 Authorize the e-payment system to include credit card transactions by citizens for state goods and services both online and at government offices.

5.2 Support Continued Growth of TexasOnline.com Services

TexasOnline.com has grown dramatically, both in number of services available and number of visits by citizens and businesses—now more than two million per month. In spite of this success, the integration of cross-agency processes and information can still be significantly improved.

Improve the Ability of Citizens to Access Information
Today, the ability of citizens to move easily from TexasOnline.com to agency Web sites and back is

hampered by a lack of coordination. Directing improved coordination will set the stage for true citizen-centered government.

5.2.1 Authorize DIR, in conjunction with agencies, to establish standards related to the development and deployment of Web sites to ensure a consistent citizen experience and improve integration between TexasOnline.com and agency Web sites.

Core Principles in Practice

The initiatives underway to achieve the objectives and deliver on the strategies described in *Shared Success* are infused with the three core principles of collaboration, accountability, and a business-driven approach.

Business-Driven Approach

A business-driven approach uses proven best practices to design and implement statewide technology initiatives. These practices include comprehensive planning to identify and quantify business outcomes for major information resources projects. A business-driven approach produces outcomes that meet agency and state goals and objectives.

TEXASONLINE.COM SERVICE DELIVERY

TexasOnline.com is a nationally recognized example of the power of effective public/private partnerships. Developed and maintained with initial funding from the state's private partner and from user fees, TexasOnline.com does not rely on General Revenue.

In September 2005, DIR executed a significant renegotiation of the TexasOnline.com master contract. Incorporating advice from LBB and SAO staff, DIR "significantly strengthened" the TexasOnline.com contract, according to a November 2005 audit.[5] The renegotiated contract increased the state's share of TexasOnline.com revenues, instituting the following key provisions:

- required that net revenue be divided evenly between the state and the contractor,
- increased the state's share of revenue from 10 percent of state transaction revenues to 20 percent of total revenues, beginning in fiscal 2007,
- established a firm contractual deadline for project "breakeven,"
- eliminated the contractor's right to terminate the contract for convenience, and
- strengthened transition terms in preparation for reprocurement.

TexasOnline.com achieved breakeven in April 2006, a full eight months ahead of the deadline established by the renegotiated contract. At breakeven, the state began receiving 50 percent of net revenues generated by the project in addition to sharing in total revenues. At the same time, ownership of all assets was transferred to the state, including all hardware and software licenses developed for the portal.

As public use of the Internet increases, Texas citizens, businesses, and government reap the benefits. These include the convenience of doing business 24/7 with quicker turnaround time for citizen transactions and decreased administrative costs for agencies to provide services.

Over 80 new services were added to TexasOnline.com in fiscal 2006, including access to vital records and a business portal that simplifies the process of starting a business in Texas into four easy steps. Additionally, an emergency preparedness portal debuted in time for the 2006 hurricane season. This portal is designed to assist Texans in preparing for natural disasters by providing information such as weather updates,

SPOTLIGHT: TEXASONLINE.COM #1 IN NATION

TexasOnline was recently named the best state e-government site in the U.S. in the seventh annual study of state and federal e-government conducted by the Taubman Center for Public Policy at Brown University. Researchers evaluated all 50 states (1,503 individual sites) for various electronic features including online publications, language translation, disability access, privacy policies, security, and number of online services available.

> "Texas was the highest-rated state in our 2006 study. TexasOnline.com has a simple, effective navigation system and an exhaustive list of over 500 online services contained within the state's Web sites—the most of all sites assessed in this study. E-services are divided into 15 categories and organized alphabetically, allowing for quick access to desired services; including online sales tax payments, vehicle registration renewals, and searchable license records databases. In addition, Texas features audio and video clips on the majority of its Web sites, as well as a Spanish version of nearly every page."

State and Federal E-Government in the United States, 2006, Brown University, August 2006. Retrieved 17-Oct-2006 from <http://www.insidepolitics.org/egovt06us.pdf>.

evacuation routes, and instructions on how to access government resources.

TexasOnline.com currently offers more than 750 online services—and enjoys a significantly higher revenue share than any other self-supporting state portal in the nation. Of the states with self-funded portals that responded to a recent DIR survey, Texas is the only state that owns both its infrastructure and code. Texas also employs the most beneficial state revenue-sharing strategy in the nation.

Additionally, high customer satisfaction ratings reinforce the value Texans place on the state's effective and efficient delivery of electronic government services. As of May 31, 2006, more than 99 percent of the customers completing online application surveys indicated that they either "agreed" or "strongly agreed" that they were satisfied with their online experience with TexasOnline.com.[6]

Because TexasOnline.com has achieved breakeven, the state owns the assets and the project will be debt-free when the contract is re-bid during the next biennium. Additionally, this self-funding model is estimated to generate $36 million for the state's General Revenue fund over the life of the current contract, of which $12 to $14 million will be realized in the 2008–09 biennium.

STATEWIDE TECHNOLOGY COOPERATIVE CONTRACTING

The state's Technology Cooperative Contracts program has evolved into a high performance procurement model. By leveraging state purchasing power to drive down costs, the program provides a very competitive procurement channel to thousands of public sector entities across Texas. The program's effectiveness and success is underscored by its growth of customer usage—from $523 million (fiscal 2004) to $750 million (fiscal 2006)—an increase of approximately 43 percent across all eligible government entities.

Beginning in fiscal 2006, state law requires Texas state agencies to buy technology through DIR technology commodity contracts unless an exemption is obtained (TGC § 2157.068). This improves DIR's ability to leverage the state's significant consolidated buying power when negotiating technology contracts.

The expansion of the Technology Cooperative Contracts program has revealed new insight into statewide spending patterns that enhances strategic decision-making. By implementing methods and tools that improve collection and analysis of purchasing trends, agencies will realize shorter procurement cycles, lower cost, and improved service levels. One of these methods, the semiannual Planned Procurement

Schedule, provides substantial visibility into agencies' upcoming procurement activities, which enables DIR to negotiate with a number of major manufacturers to gain significant pricing concessions.

DIR reviewed the planned procurement information submitted by state agencies, in March 2006, for a 12-month period. Totaling approximately $110 million in technology commodities, agencies planned to procure, among other items, more than 43,000 desktop computers and 380,000 hours of staff augmentation services. Based on this information, DIR will identify opportunities to lead a collected effort where it makes sense and open consolidated purchasing opportunities to its entire customer base. The planned procurement information collected from state agencies is critical to the state's ability to develop effective sourcing strategies. While state agencies are the only governmental entities required to report this information, a number of local government organizations are considering using this reporting tool voluntarily to ensure they benefit from the state's ability to derive best value in technology procurements.

SPOTLIGHT: TECHNOLOGY STAFFING SERVICES CONTRACT

To lower contract rates, improve the quality of services delivered to customers, and stimulate competition while providing ongoing opportunities for historically underutilized businesses and small businesses, DIR recently revamped this program. In August 2006, DIR awarded contracts to 170 vendors to provide technology staffing services for use by its customers.

The revamped technology staffing services program improves agencies' access to competitive, market-driven, performance-measured contracting, by implementing:

- 123 unique staffing positions
- Market-driven "not-to-exceed" rates
- Lower pricing through agency negotiations
- Performance metrics built into the contracts
- A streamlined administrative process

Over the last six months, DIR conducted interagency workgroup meetings to develop standard configurations for both high performance and standard desktops and laptops. Limiting the number of configurations will enable DIR to negotiate greatly reduced pricing from the major computer vendors. These configurations and the value that they bring will be available to all eligible governmental entities.

The Technology Cooperative Contracts program facilitates DIR's role as chief negotiator of technology contracts in Texas. The program delivers business value through reduced technology costs, decreased administrative costs, and common technology procurement processes.

STATEWIDE NETWORK COMMUNICATIONS INFRASTRUCTURE

The telecommunications system for the state, known as TEX-AN, provides a network communications infrastructure that is adaptable to changing requirements and can incorporate new and emerging technologies. DIR recently negotiated the contract with its TEX-AN provider, resulting in significant technology enhancements and reduced costs for its diverse customer base.

DIR created a shared, statewide Internet protocol communications platform for TEX-AN in partnership with its service providers to meet the diverse communications needs of its customers. This shared infrastructure will support next-generation network services across state government. These services include call center support, voice over IP (VoIP), Interactive Voice Response, Automatic Call Distribution, Outbound Call Dialer, and other data and video offerings.

The first major initiative to leverage the new, IP-based platform is the statewide 2-1-1 information and referral communications platform, called *2-1-1 Texas*. This initiative has benefited from DIR-negotiated pricing—it is expected to save $7,000 per month via new managed services. 2-1-1 Texas establishes a public service call number offered throughout the state that provides community, state, and federal health and human services information for both everyday needs and in times of crisis. The VoIP platform developed for 2-1-1 Texas has been expanded to support the new statewide call center for HHSC's Integrated Eligibility and Enrollment program. In the wake of Hurricane Katrina, 2-1-1 Texas was used to set up 50 VoIP stations in Austin to handle overflow traffic for the Hurricane Area Information Center.

Customers on HHSC's legacy wide area network (WAN) are migrating to the IP communications platform, which will provide improved reliability and higher security for all network communications. By utilizing the shared platform, existing HHSC WAN customers will see an estimated savings of $1 million by avoiding future infrastructure upgrade costs.

In addition, the Commission on State Emergency Communications (CSEC) has leveraged the IP platform by subscribing to a fully managed service arrangement for their Texas Poison Control Network, which is converging voice, data, and video communications. By leveraging the IP platform, CSEC reduced its required access circuits by roughly 50 percent, resulting in savings of over $5,000 per month. Several agencies are currently negotiating with DIR to expand their communications services through participation in the IP communications platform.

Collaboration

Collaboration opportunities continuously engage state agency and other stakeholders in sharing and leveraging knowledge and resources, and applying these assets across the enterprise to improve services. Working as one team, key stakeholders participate in areas of common interest.

HISTORICALLY UNDERUTILIZED BUSINESSES

Texas continues to demonstrate its commitment to improve the access of Historically Underutilized Businesses (HUBs) to statewide technology procurement opportunities and increase opportunities for HUB utilization through DIR's Technology Cooperative Contracts program. In January 2006, DIR and the Texas Association of HUBs signed a collaboration agreement, launching a new initiative that expands the shared commitment to partnership and promoting mutual opportunities in Texas.

The agreement established an advisory board comprising representatives from the HUB vendor community, state agencies, local government, K–12 public schools, and institutions of higher education. The agreement facilitates increased communication and cooperation between HUB vendors and the state and expands communication channels between HUBs and the public sector.

SPOTLIGHT: DIR POLICY LISTSERV

The DIR Policy Listserv is an e-mail distribution group of 700+ subscribers. DIR uses the listserv to make development and implementation of Texas technology policy easily accessible to state agencies, institutions of higher education, legislators, vendors, and the public.

DIR actively seeks input from agencies and other stakeholders to enhance its work products. The listserv is used to announce Requests for Offer, research and reports posted on the DIR Web site, educational events and information gathering forums. The listserv keeps stakeholders informed about initiatives that affect state technology policy.

The DIR Policy Listserv engages Texas' technology community and keeps it informed and involved in every aspect of the state's shared technology infrastructure.

For more information on the DIR Policy Listserv, see <http://lists.state.tx.us/mailman/listinfo/dir-policy>.

In January 2006, the Texas Association of HUBs sponsored its first networking forum in collaboration with DIR's vendor briefing on the data center services Request for Offer. The forum provided an avenue for HUBs to explore subcontracting opportunities with larger, prime vendors.

COMMUNICATION CHANNELS

New communication channels have been established to ensure inclusion of public and private sector stakeholders. This community is kept informed through a variety of collaboration opportunities and communication channels, including focus groups, workgroups, and other forums.

DIR regularly conducts focus groups with agency stakeholders to share knowledge and expertise in developing technology policy. These groups provide input in the development of DIR administrative rules, guidelines, and best practices; Texas Project Delivery Framework templates and tools; the state strategic plan; and instructions for agency information resources strategic plans.

Interagency workgroups support development of key statewide programs and initiatives—such as technology commodity purchasing, standard configurations, Planned Procurement Schedules, technology staffing services, and recommendations for streamlining technology reporting.

Through a Posted for Review process communicated through the DIR Policy Listserv, public feedback is obtained on proposed revisions to major policy documents, including the development or revision of each administrative rule, guideline, or best practice.

In addition to the Policy Listserv, DIR manages an e-mail distribution group of more than 6,000 customers that communicate statewide procurement opportunities through its Technology Cooperative Contracts program. DIR also administers e-mail distribution groups for the state's training and development community, technology practitioners, and the Public Electronic Services On-the-Internet Working Group, among others.

EDUCATION AND TRAINING

A number of educational events are designed to enhance the state's planning and management of technology. During fiscal 2006, DIR sponsored 57 educational enterprise programs serving 3,131 attendees, and delivered key events, including:

- E-Records 2005: A Practical Guide for Success in Managing Electronic Records,
- Wireless Technology Forum for Texas Government, and
- Internet Security Forum.

DIR collaborates with state entities, as well as the vendor community, to deliver technology leadership and training opportunities to state agencies. Through DIR's partnership with the LBJ School of Public Affairs, state agencies have participated in a unique course, Executive Leadership in Information Technology Excellence (ELITE), a two-week executive leadership program for technology staff. As a result of partnering with technology commodity vendors on contract, state agencies enjoyed more than $25,000 worth of free technology training in fiscal 2006.

SPOTLIGHT: TEXAS STATE AUDITOR TRAINING OPPORTUNITIES

Professional development opportunities are provided by state agencies such as the Texas State Auditor's Office and are available to city, state, and county government employees. Training provided by the SAO ranges from information and communications technology courses to fundamentals of technology auditing. The SAO also accepts suggestions for new technology and business courses of interest to state and local government employees.

The SAO's training mission is to increase knowledge and skills, which will lead to improved performance. With increased knowledge and skills, government leaders will more effectively and efficiently implement sound business management practices.

The Texas Association of State Systems for Computing and Communication (TASSCC) is a nonprofit professional association dedicated to advancing education and networking among Texas public-sector technology professionals. Full members of TASSCC are Texas state agencies and institutions of higher education, while associate members are primarily companies involved in information and communications technology. TASSCC sponsors three conferences each year, organizes quarterly luncheons where the state's technology leaders can share information, hosts special interest groups for the purpose of technical discussion, provides scholarships for state technology staff, and supports many DIR educational events.

Accountability

Accountability establishes a framework to employ a consistent method for assessing outcomes. This approach ensures the connection between business problems and solutions are inextricably linked. The execution, performance, and outcomes of every technology project must be measured against clearly defined standards for success.

DIR CONTRACT SAVINGS METHODOLOGY

In May 2004, DIR formally established a goal of saving the state $270 million in technology infrastructure costs. To gauge the state's ability to realize these savings, DIR implemented its cost savings tracking and reporting program.

The program identifies and validates savings realized by the state and local governments and K–12 public schools using DIR contracts to purchase technology goods and services. The reported savings result from DIR's ongoing contract negotiation efforts and, generally, do not exceed a five-year term for the specific contract negotiated. The results are reported to DIR's management and at quarterly meetings of the DIR Board of Directors, attended by state leadership staff.

To implement the program, DIR developed procedures and processes to ensure that the reported cost savings are accurate and consistently computed over time. As part of DIR's annual audit plan, the agency's independent internal audit firm reviews the cost savings tracking and reporting methodology to confirm the accuracy of the approach and the reported savings.

To date, two internal audit reports have been issued and both confirm that the estimated and realized savings were computed appropriately and accurately and that the computation process is sound. *Figure 3* reflects the state's progress against its $270 million goal. As of August 31, 2006, DIR had identified $96.2 million in savings through negotiations of new and existing contracts. Of the $96.2 million projected savings, $68.0 million in savings have been realized.

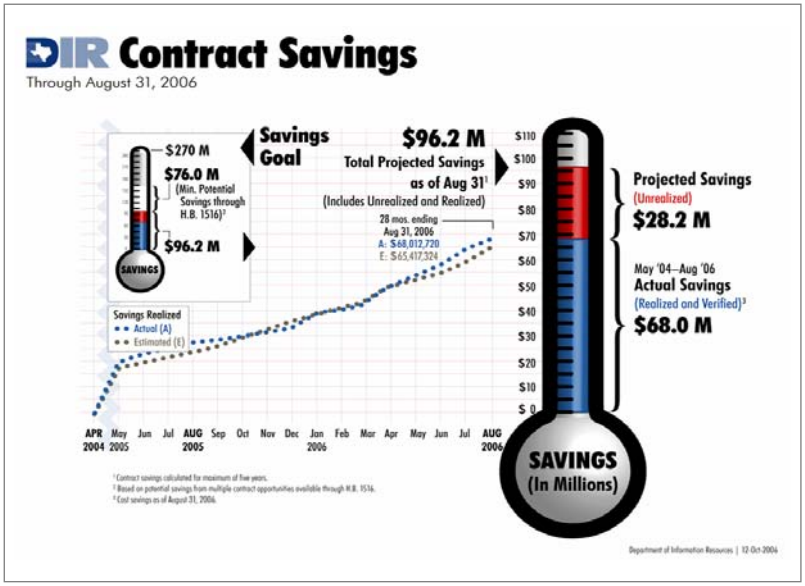


Figure 3. DIR Contract Savings Reporting

SPOTLIGHT: TEXAS PROJECT DELIVERY FRAMEWORK

Business-driven technology solutions for major information resources projects are guided by the Framework, which encompasses a review gate process and authorization by the agency head to proceed to the next gate. The review gates are:

- **Business Justification** – selection and approval of the project
- **Project Planning** – planning project management and technology-related activities and deliverables
- **Solicitation and Contracting** – development and management of solicitations and contracts
- **Project Implementation** – development, testing, and deployment based on project planning deliverables
- **Benefits Realization** – measurement and evaluation of all project outcomes in relation to outcomes described at Business Justification

TEXAS PROJECT DELIVERY FRAMEWORK

At the direction of the Texas Legislature, and in collaboration with state agencies, DIR developed the Texas Project Delivery Framework (Framework) to improve outcomes of and accountability for major information resources projects. The Framework provides a formal structure that emphasizes accountability and decision-making by agency heads at specific points, or review gates, during project delivery.

The Framework ensures that before a project is initiated, a rigorous examination of the agency's business need is conducted and substantiated. The Framework review gates require careful assessment of whether a project will meet its business outcomes and is ready to proceed to the next stage.

The agency head is ultimately responsible for the project and must personally approve all business outcomes that result from activities during each review gate. The agency head decides whether a project is ready to proceed to the next stage, ensuring the business solution is aligned with state and agency business goals and objectives.

To satisfy the requirements of the initial review gate, an agency must examine the business value of the project in relation to other projects under consideration. The ability of a project to deliver on its projected business outcomes is tracked and managed by the agency throughout the project. As part of the final review gate, lessons learned from the project are documented and results are shared and incorporated in agency process improvements for future projects.

The Framework enables state agencies to consistently deliver successful major information resources projects that meet business and performance requirements on time and within budget.

SPOTLIGHT: UT SYSTEM SECURITY PLAN

The University of Texas System has enhanced its system-wide approach to technology security through its *2006 Action Plan to Enhance Information Security Compliance*. Key components of the plan are to:

- Designate a system-wide Chief Information Security Officer
- Designate an appropriate ISO at the UT System, each institution, and the UT Management Investment Company (UTIMCO). ISOs report to their institutional manager and the CISO
- Establish a system-wide Information Security Council that meets quarterly; and working committees at the UT System, each institution, and UTIMCO that meet monthly
- Implement a continuous, proactive compliance program to reduce risk to a reasonably low level
- Allocate sufficient resources to fund compliance activities, including staffing, training, and monitoring

INFORMATION SECURITY

The 79th Legislature required DIR to establish a network and security operations center (NSOC) to protect state agencies and other authorized entities against external threats to their networks. NSOC operations will be conducted through a secure facility beginning in March 2007 to help agencies identify and combat internal and external threats and strengthen the integrity of the state's information resources.

DIR updated state information security rules—Texas Administrative Code, Title 1, Chapter 202 (1 TAC 202)—in 2006 to require that agencies develop effective security plans and processes in line with best practices, including requirements for each state agency to appoint an Information Security Officer (ISO). ISOs, in their key role as the principal information security advisor to agency executive management, are required to analyze and assess risks to their agency's technology infrastructure and make informed decisions and recommendations on how to spend resources to address security issues.

To improve the statewide focus on these responsibilities, DIR established an information security division and designated the state's first chief ISO in 2004 with strategic oversight for security of state information systems. DIR is committed to fostering partnerships with state agencies to support their efforts to safeguard the state's technology investment.

Additional accountability measures for security are a critical issue and are described further in *Section 2*.

Data Center Services – A Case Study

Applying the Core Principles

Through its adoption of a business-driven approach, development of a common vision through collaboration, and establishment of clear accountability through a systematic and rigorous process of data gathering and validation, the data center services initiative provides an excellent example of the state working as an enterprise.

State leadership set clear expectations during the 79th Legislative Session to consolidate the state's data centers (TGC 2054.375–391). Passage of the legislation, coupled with the August 2007 expiration date of the existing data center services master contract, were key factors in developing an appropriate schedule for the data center services initiative.

In implementing the provisions of the new laws, the state will deploy data center services that will combine and coordinate agency data center and disaster recovery operations to improve efficiencies and performance. Sharing data center services will leverage economies of scale and improve security and disaster recovery capability, while maintaining or improving existing service levels and reducing costs. Successful delivery of shared data center services is a top priority for the state.

Business-Driven Approach: Proven Best Practices

The Texas data center services initiative is significant for the state. A leading technology research and analysis firm, Gartner, Inc., characterizes the market for data center outsourcing as "one of the most mature" technology service categories.[7] The market has developed over several decades and data center services contracts have become standard. The global sourcing market continues to account for approximately $67 billion annually,[8] with recent growth increasingly fueled by government contracts.[9] As governments and global private sector companies consolidate and source the data center infrastructure, they find proven methodologies, greater standardization in contracting practices, and strong competition among service providers for business.

Texas has hired leading experts to bring the proven best practices of this marketplace to the data center services procurement. Technology Partners International (Houston), a firm that has supported more than 780 sourcing transactions, and Mayer, Brown, Rowe, & Maw LLP (Houston), a law firm with extensive expertise in technology services contracts, worked with state staff to develop the Texas methodology, Request for Offer (RFO) documents, and Master Services Agreement.

DIR has invested in strong quality assurance processes to encourage competition and ensure equal treatment of all bidders. An independent procurement quality team has been established that meets weekly. Monitors from the procurement quality team oversee all evaluation team meetings, clarification sessions, and additional meetings with the prospective service providers.

Collaboration: Agency Involvement

The data center services initiative has operated as a collaborative statewide project from its inception, emphasizing consensus and partnerships across all participating agencies. Since July 2005, 27 of the largest Texas state agencies have been working collaboratively to implement state leadership's vision of shared data center services. More than 300 state agency personnel have participated in the data center services project over the past year.

Throughout this process, technology managers from participating agencies have been meeting as members of the Data Center Services (DCS) Advisory Council. The council established the guiding principles for data center services, and on an ongoing basis, provides input to DIR and coordinates all DCS project activities for their agencies. The process started with more than 100 agency staff in five functional workgroups reviewing the scope of services. The workgroups developed a list of more than 400 technology functions, and collectively determined which would be part of the data center and which would remain with the individual agencies. The groups reached consensus on all but two items, which were subsequently resolved through the DCS Advisory Council and DIR's Executive Director.

Employees from the 27 participating agencies assisted in the development of the RFO and evaluated the responses. The development team participated in nine full-day workshops to build the RFO Statements of Work in February 2006. This effort included development of requirements, service levels, and the governance structures for future data center services. Many of the same people participated in 35 days of review sessions to evaluate the responses. This process included individual reviews, group assessments, and interactive clarification sessions with the prospective service providers.

Figure 4. Clarification Session

The clarification sessions enabled the teams to pose questions about the proposals, clarify the state's requirements, and receive explanation on the intent of the service providers' proposals. After the clarification sessions, the service providers had an opportunity to amend their responses based on their improved understanding of the state's requirements. The evaluation teams are supported by the Executive Advisory Panel, a representative group of senior agency executives who review the teams' evaluation and share a critical business perspective with the state's CTO.

DIR obtained agency feedback on the evaluation through confidential interviews with many of the evaluation team members. These interviews yielded constructive feedback about the thoroughness and quality of the process, the level of agency involvement, and the way agencies have begun to form an enterprise perspective through their participation.

In addition to state agency stakeholder involvement, Texas has sought to work in close concert with its federal partners to help them understand the state's process and ensure full compliance with all requirements for continued federal participation in Texas programs. In August 2005, Texas sent a team to

Washington, D.C., to meet with several federal agencies, including the Department of Agriculture and the Department of Health and Human Services (DHHS). These preliminary meetings established a foundation for information exchange and paved the way for future conversations about details such as cost allocation methodology, required documentation, and billing.

In February 2006, DIR provided the DHHS Division of Cost Allocation a white paper outlining the proposed approach for consolidation and outsourcing of data center services. This communication was followed by several productive conference calls with federal partners, Texas state agencies with significant federal funding, and DIR. As a result of these efforts, the Department of Agriculture and the DHHS determined that Texas, or any other states engaging in similar efforts, would not have to submit an Advance Planning Document, which would have required advance approval from all participating federal agencies before issuing the RFO or awarding the contract. With preliminary lines of communication regarding the Texas billing framework well established, the next steps include developing the details for the chargeback methodology and submitting the methodology to the DHHS in the Statewide Cost Allocation Plans for 2007 and 2008.

Accountability: Financial Base Case

Transforming the current financial model for data center services from "pay for assets" to "pay for services" requires rigorous research, analysis, and validation. The 27 agencies participating in the data center services procurement have collectively dedicated thousands of hours to gathering detailed data about the current infrastructure environment. This information, never before available, reflects the assets, resources, costs, contracts, and service levels that make up the Texas infrastructure. A comprehensive analysis of this data reconfirmed opportunities for consolidation, improvement, and greater statewide consistency in security and disaster recovery that were first revealed in the Statewide Data Center Assessment issued in March 2005.[10] Additionally, this detailed understanding of operations and costs forms an accurate benchmark from which to compare services, service levels, and pricing proposed by service providers.

The data center financial base case documents current costs incurred by the 27 prioritized state agencies. Costs in the financial base case include items such as employee salaries and benefits, hardware and software leases, disaster recovery contracts, and associated expenses, including postage and printing. The base year total was derived from the 27 agencies' self-reported budgets for fiscal 2006–07.

The base year costs are extrapolated over a seven-year term that coincides with the life of the contract to establish a baseline for cost comparisons. The seven-year forecast is based on industry-standard economic modeling factors, including historical productivity gains and price improvements in technology. These expectations predict a decline in expenditures over time when no new programs or services are added. The factors were developed with the help of Technology Partners International and are based on their extensive industry experience with similar contracts. The base case is used in the financial evaluation of the RFO responses and to complete the business case analysis, which estimates future savings and benefits to the state.

The initial base case figures, published in the RFO on March 31, 2006, have been refined and updated through additional data gathering and work by the agencies. The new base case provides greater accuracy and a detailed picture of current operations and costs. The full-time equivalent (FTE) validation and due diligence contributed to the updates of the base case.

To ensure the data center and agencies each have the right resources to fully support operations, DIR hired an independent consulting firm to validate the number of affected FTEs. The firm reviewed data gathered to date, assessed organization charts, and interviewed technology managers and staff from the 27 agencies. The process resulted in changes to the number of affected employees in several agencies, with some agencies increasing affected employees and some decreasing affected employees. Additionally, many positions were reclassified from one out-of-scope area to another out-of-scope area (e.g., from "miscellaneous" to "help desk").

This process allowed prospective service providers to obtain additional data about current operations to improve their responses and eliminate assumptions. The service provider bid proposal teams visited the agencies, interviewed operational staff, and collected additional information about technology in use (e.g., server complexity). Additionally, a total of 1,950 contracts were received and cataloged for review by prospective service providers. Due diligence activities concluded at the end of September 2006, to allow the findings to be incorporated in the Best and Final Offer responses, as appropriate.

The current data center services contract expires August 31, 2007, and no contract extensions remain. The new contract will be executed in late-November 2006, with a service commencement date of March 31, 2007. This timing is essential to give affected employees time to transition to the selected service provider and agencies sufficient time to seamlessly transition any currently contracted services before August 31, 2007. All current data center customers will transition to the new service delivery model, regardless of the selected service provider. The new contract will take over services in place and follow a gradual, deliberate plan to consolidate operations and achieve efficiencies over time. As Texas moves forward, the cornerstones of the project—accountability, collaboration, and a business-driven approach—will continue, ensuring the contract yields real value for the state.

APPENDIX B

Agency Information Resources Strategic Plan Analysis

The biennial information resources strategic plan (IRSP) was established by the Legislature to require agency strategic planning in the deployment of technology. The 2006 IRSP follows the principles laid out in *Shared Success,* and helps agencies establish a roadmap for implementing technology solutions to advance their unique, mission-critical business objectives.

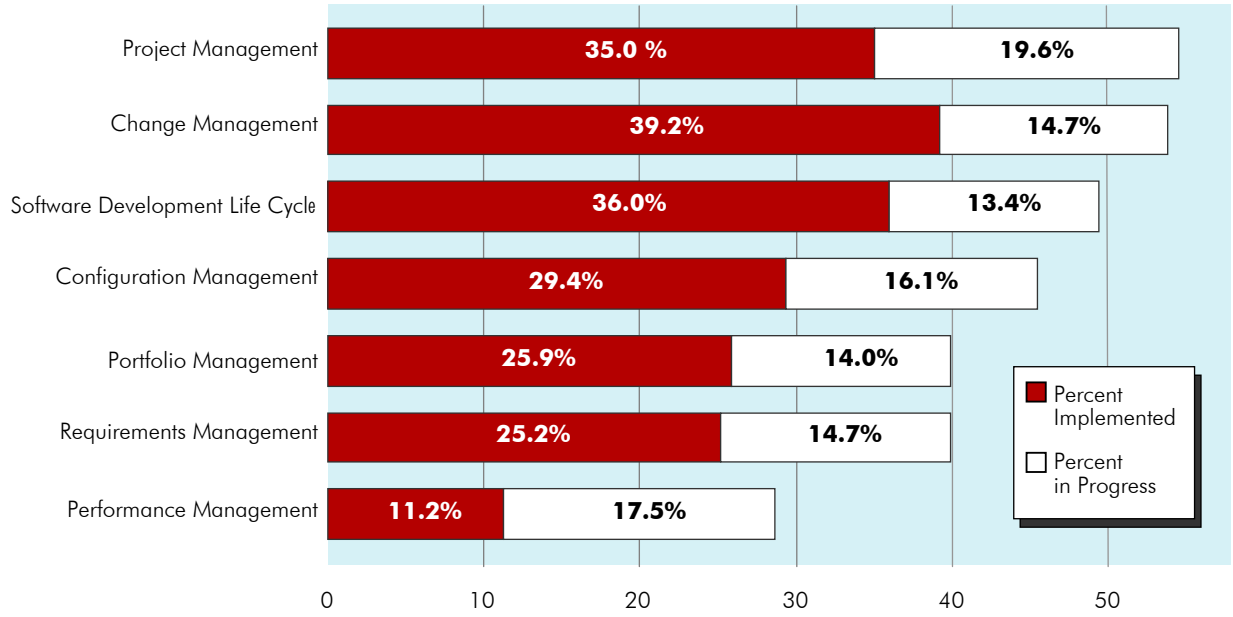
From DIR's perspective, the IRSP builds a critical understanding of the agencies' technology needs. DIR will use this information to prioritize and refine the statewide objectives as it moves forward. Alignment of efforts between the agency and state levels is essential for the establishment of an effective statewide technology enterprise.

DIR has performed a preliminary analysis of agency IRSP responses for use in the development of this report. This data will be used over the course of the biennium to enable DIR to fulfill its commitments to the state and to other agencies, assess agency adoption of the state's technology standards, and determine future agency and statewide technology needs.

Selected findings from agency responses to the 2006 IRSP are presented in the following sections in the context of the three layers of the *Texas Model of the Enterprise* (agency, collaboration, and statewide infrastructure). Compliance tracking and future improvements to the IRSP process are also discussed.

Agency Layer

The agency layer of the Texas Model supports the unique functionality that each agency must deliver to successfully support its mission. For the first time, the IRSP asked agencies to asses their level of adoption of various business/technology management practices that can help bring about statewide alignment of technology and business functions. The agency responses indicate a promising level of adoption (see *Figure B-1*).



Note: Percentages may not add to one-hundred because some agencies have not implemented one or more practices.

Figure B-1. Agency Adoption of Business/Technology Management Practices

As *Figure B-1* illustrates, about one-third of all agencies have implemented project management, change management, and software development life cycle strategies. Adoption of these strategies is in progress in an additional 13–20 % of agencies. Configuration, portfolio, and requirements management strategies have been implemented at about one-fourth of all agencies, with adoption of these strategies in progress at an additional 14–16% of all agencies. Performance management strategies have been implemented at about 11% of all agencies, with implementation in progress at an additional 17% of all agencies.

Collaboration Layer

The collaboration layer of the Texas Model supports the shared development and adoption of rules, guidelines, and best practices that contribute to effective enterprise management of technology. Questions were included in the IRSP to measure agency progress against *Shared Success'* statewide collaboration strategies.

When asked which potential resources would help agencies to identify collaboration opportunities, the most frequently cited (81.2%) was a comprehensive list describing agency projects and applications that would enable information sharing and opportunities for reuse.

PROJECT DELIVERY

Almost one-half of the agencies (45.5%) reported that they utilize the Texas Project Delivery Framework. The most frequently requested types of Framework training were in the areas of portfolio and project management practices (83.5%), performance management (82.6%), and business case analysis (76.2%).

ARCHITECTURE

The state's Enterprise Architecture goal is to encourage and support agencies in the development of business and technology architectures that drive improved planning and coordination through reuse, collaboration, and interoperability.

Enterprise architecture remains an emerging area of endeavor for most state agencies. For example, IRSP reporting indicates that approximately half of the agencies have not begun implementation of information architecture (42.7%) or technical architecture (47.6%) standards. When asked to identify potential resources that would be beneficial in expanding reuse opportunities, agencies most frequently suggested guidelines and training in the areas of technology asset reuse (61.1%), information asset reuse (52.4%), and business asset reuse (50.8%).

STATE REVIEWS

DIR will analyze responses to IRSP questions regarding the challenges that agencies face and the extent to which they experience redundancies in technology reporting to oversight agencies. This analysis, along with key actions cited in the *Statewide Technology Management: Opportunities for Improvement* report, available on the DIR Web site, will be used to improve methods for collecting, reporting, and sharing technology information.

DATA MANAGEMENT AND ACCESS

Agencies use several types of automated tools to manage their data and information—the most frequently cited are imaging systems (62.0%), Web content management (43.7%), records management (37.3%), and document management (36.7%).

Statewide Infrastructure Layer

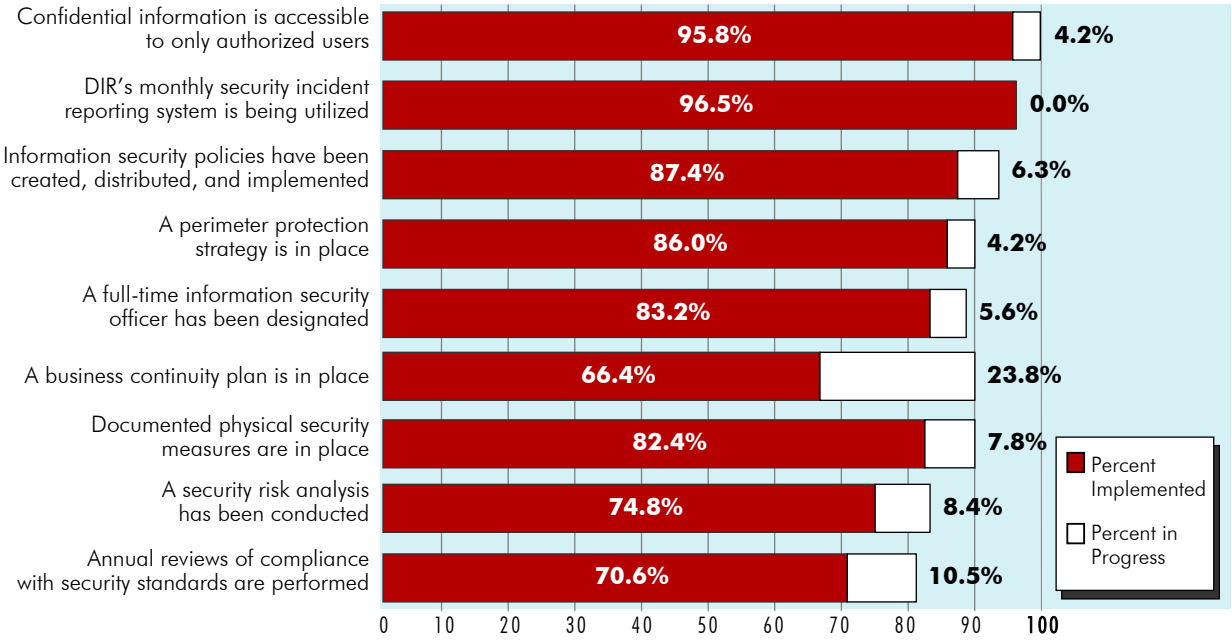
The Statewide Infrastructure layer of the Texas Model establishes statewide resources to leverage the delivery of technology programs and services that support the state as an enterprise. Questions were included in the IRSP to measure agency progress against the statewide infrastructure strategies from *Shared Success*.

DATA CENTER

Sixty non-higher education agencies reported that they have a data center, defined as "a centrally managed computing facility that houses servers or mainframes and storage devices to serve as a centrally managed processing center." Documented service level agreements (SLAs) are essential for the effective management of data center services. Of the 60 data center agencies, 75.0% reported having SLAs for systems availability, 71.7% reported having SLAs for problem resolution and incident response time, and 58.3% reported having SLAs for customer satisfaction. Data center information related to higher education was collected separately and is reported in DIR's *Higher Education Institution Data Centers: Inventory and Consolidation Analysis* report.[11]

SECURITY

Ensuring the security of critical information and data is one of the state's most imperative technology issues for the coming biennium. Agencies reported a high level of compliance with state security standards (see *Figure B.2*). Full compliance will be required to ensure maximum statewide security in the future.



Note: Percentages may not add to one hundred because some agencies did not report compliance with one or more standards.

Figure B-2. Status of Compliance with Selected Security Standards

Agency responses indicate several areas of vulnerability that must be addressed in order to enhance statewide technology security. Over one-third of all agencies (36.4%) reported that automated security tools, security and awareness training programs, and computer incident response mechanisms have not been implemented. Almost one-half (42.7%) of all agencies reported that security vulnerability detection and remediation methods have not been implemented.

Agencies ranked seven current and potential statewide security services in terms of greatest benefit. The highest rankings were:

- Provision of periodic external security assessments to help identify each agency's information resources strengths and weaknesses (ranked number one by 42 agencies).
- Identification, development, and management of best practice rules, standards, and guidelines to help reduce agency workload while providing more timely, complete and accurate data for internal and external monitoring (ranked number one by 34 agencies).
- Comprehensive information security training program requirements developed to ensure security professionals, agency leadership and network users at all levels are able to perform information security responsibilities (rated number one by 23 agencies).

NETWORK

Approximately one-fourth of all agencies (24.5%) reported that they plan to upgrade their voice network infrastructures within the next five years. The majority of agencies (80.0%) report that they have considered or will consider a shared service arrangement through DIR to support future agency voice network efforts.

Nearly one-third of all agencies (30.8%) reported that they plan to upgrade their data network infrastructures within the next three years. Two-thirds of agencies (67.4%) report that they have considered or will consider a shared service arrangement through DIR to support future agency data network efforts.

Agencies ranked seven current or potential network operations/services in terms of greatest benefit. The three highest rankings were:

- Data network upgrades (ranked number one by 58 agencies),
- Wireless data services and infrastructure (ranked number one by 27 agencies), and
- Voice network upgrades (ranked number one by 17 agencies).

SHARED APPLICATIONS

Almost three-fourths (73.2%) of agencies reported that they currently offer or accept applications or forms over the Internet. Over half (57.8%) of agencies collect payments for services over the Internet.

Nearly one-tenth (9.2%) of agencies reported that they are planning to upgrade their current e-mail and messaging systems in fiscal 2008–09. Over one-half of all agencies (62.9%) indicated that they either are participating or will consider participating in DIR's Messaging and Collaboration contract.

Agencies ranked six potential shared services in terms of greatest benefit. The three highest rankings were:

- Receiving payments over the Internet (ranked number one by 42 agencies),
- Offering or accepting forms over the Internet (ranked number one by 30 agencies), and
- Providing e-mail/messaging and collaboration services (ranked number one by 29 agencies).

PROCUREMENT

Agencies reported a broad range of benefits from the state's Technology Cooperative Contracts program, with the three highest rated benefits listed as follows:

- Reduced staff time and delivery time on goods and services (64.3%),
- Actual monetary savings (58.0%), and
- Enhanced contract terms and conditions (49.0%).

ACCESSIBILITY

Most agencies (93.7%) reported that they test their Web sites and Web-based applications for compliance with state Web accessibility standards. Usually this testing is performed by internal agency staff, although a few agencies (8.0%) reported using external resources. DIR will collect further information from the agencies pertaining to access to electronic and information resources by state employees and other individuals with disabilities.

Corrective Action Plans

The Texas Legislature requires DIR to provide the LBB with a list of agencies that have not complied with state technology standards, provisions in the State Strategic Plan, or previous corrective action plans.

Each identified agency must develop a corrective action plan, approved by DIR, which specifies how the agency will correct the identified deficiencies before components of the agency's biennial operating plan may be approved. Beginning in November 2006, DIR will work with individual agencies on corrective action plans for any IRSPs that are not in compliance with legislative mandates.

Improvements to the IRSP Process

DIR collected IRSP information from agencies through a hosted Web survey system. Based on agency feedback, this system was more user-friendly than the data collection used for the 2004 IRSP. In addition, DIR is providing each agency with its IRSP data and the tools to enable analysis in support of improved technology operations.

The Information Resources Management Act requires agencies to report information about technology projects as part of their IRSP. DIR opted to collect this data via existing agency reporting through the LBB's Information Technology Detail schedule and the Texas Project Delivery Framework rather than report redundant information from agencies. DIR is committed to ongoing improvement of this process to maximize benefits to the agencies and the state, while minimizing agency reporting burdens.

Other improvements that require statutory changes have been recommended in *Critical Issue 4*. These recommended changes could significantly change future IRSPs as well as other technology-related reporting requirements.

APPENDIX C

State Technology Expenditures

DIR reviewed Uniform Statewide Accounting System (USAS) data from the CPA, as well as data collected from state agencies and institutions of higher education, to estimate the state's annual technology expenditures. These expenditures include the purchase of goods and services and the total compensation of all staff who perform functions that are primarily technology-related. DIR estimates that the state's technology expenditures totaled approximately $1.9 million in fiscal 2006 and $1.7 million in fiscal 2005.

The following table summarizes the estimated expenditures statewide for technology goods and services and staff compensation for fiscal years 2001–06.

Technology Category	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Fiscal 2006
Goods and Services	1,527,837,640	1,499,639,199	1,525,001,890	1,379,050,000	1,229,117,946	1,383,154,540
Staff Compensation	406,732,875	438,992,270	444,788,720	439,734,886	467,240,280	497,140,670
Total Expenditures	**$1,934,570,515**	**$1,938,631,469**	**$1,969,790,610**	**$1,818,784,886**	**$1,696,358,226**	**$1,880,295,210**

Although DIR has been able to incrementally improve its process for estimating the state's technology expenditures over the past several years, these figures remain approximations. The method of calculation for estimating expenditures for goods and services and staff compensation is described in the following pages. Further improvements to this method will be possible over time as a result of a current effort by DIR and other oversight agencies to streamline and align state technology reporting *(see Critical Issue 4)*.

TECHNOLOGY GOODS AND SERVICES

Purchases of goods and services are recorded in USAS. The following table shows dollar amounts for fiscal years 2001–06 for technology goods and services.

Technology Goods/Services	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Fiscal 2006
Contract Services	564,629,781	576,697,296	671,803,044	615,434,370	490,899,970	569,847,442
Computer Hardware	394,496,738	327,610,272	278,035,740	259,135,916	264,386,623	292,300,974
Computer HW Maintenance	41,578,926	47,010,959	40,302,376	30,689,339	25,395,012	27,303,922
Software	95,755,915	112,944,567	101,730,749	83,396,442	70,700,327	76,956,243
Software Maintenance	48,940,685	56,011,129	53,127,685	58,041,530	61,913,282	67,001,887
Telecom Hardware	31,881,031	29,036,877	22,010,515	17,654,921	18,209,355	24,411,458
Telecom HW Maintenance	10,458,312	8,399,191	7,468,553	6,280,355	6,356,659	9,467,359
Telecom Voice Services	177,298,751	172,767,990	179,160,092	153,662,576	142,303,863	138,927,419
Telecom Data Services	36,557,029	33,618,052	39,008,578	32,336,151	29,674,437	38,887,390
Supplies	79,711,846	91,293,713	94,666,899	87,220,205	90,418,030	101,148,185
Training	46,528,626	44,249,153	37,687,659	35,198,195	28,860,388	36,902,261
Total, Goods and Services	**$1,527,837,640**	**$1,499,639,199**	**$1,525,001,890**	**$1,379,050,000**	**$1,229,117,946**	**$1,383,154,540**

TECHNOLOGY STAFF COMPENSATION

Texas lacks a consistent, ongoing method to accurately track technology staff and compensation levels. While the CPA's Uniform Statewide Payroll and Personnel System (USPS) tracks agency payrolls by state job classification, many technology jobs are not tracked using specific classifications. Therefore, DIR determined that the best estimate could be obtained by using data from two recent data sources:

- Data Center Services Initiative for Non-Higher Education Agencies – As part of the data center services initiative (see *Appendix A),* DIR collected detailed financial base case information from the 27 participating agencies, including specific, validated figures for technology staffing. These 27 agencies represent 80.6% of the state's non-higher-education technology compensation, based on cost data collected through the Statewide Information Technology Asset Reporting (SITAR) system in 2004. Comparing the newly collected information to past results from SITAR, DIR created a model to approximate the staffing levels for smaller agencies consistent with previous reports.

- EDUCAUSE Core Data Service for Higher Education Agencies – Most Texas institutions of higher education participated in a recent national technology survey conducted by EDUCAUSE, Inc. The Information Technology Council for Higher Education requested that these institutions sign data releases allowing DIR to obtain staff compensation data from EDUCAUSE, which eliminated the need for an additional survey. The institutions that reported in EDUCAUSE represent 55.6% of all Texas institutions of higher education, based on total staff size. On this basis, DIR extrapolated the EDUCAUSE technology staff compensation data to estimate total staff compensation for all institutions.

The following table shows DIR's estimate of statewide technology staff compensation levels for fiscal years 2001–06. Data for fiscal 2001–04 is based on estimates from historical data provided through the Texas Statewide Planning Information Resources System (TxSPIRS). Data for fiscal 2005–06 is based on the improved data sources described above.

Technology Category	Fiscal 2001	Fiscal 2002	Fiscal 2003	Fiscal 2004	Fiscal 2005	Fiscal 2006
Staff Compensation	$406,732,875	$438,992,270	$444,788,720	$439,734,886	$467,240,280	$497,140,670

Figure C-1 shows trends in technology spending in the general categories of staff compensation, contract services, computer hardware, telecommunications, and software.

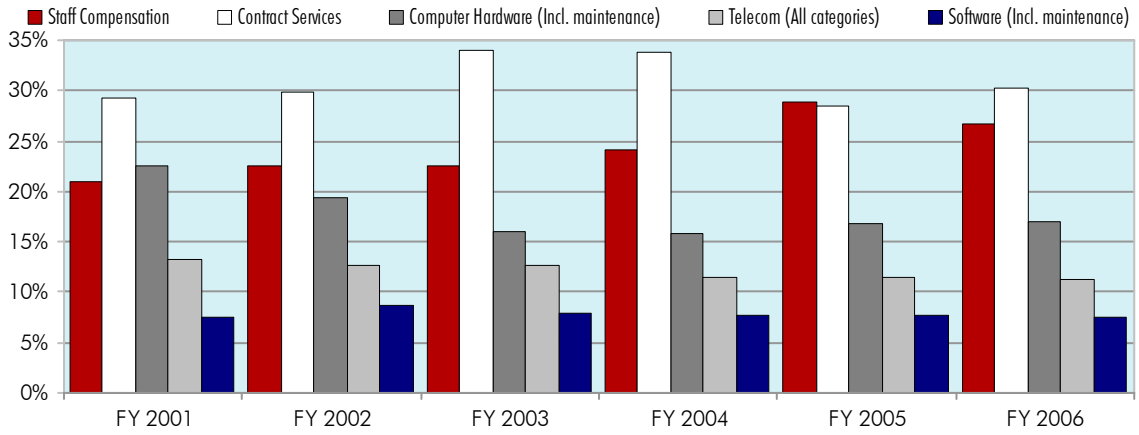


Figure C-1. Technology Spending by General Category

Figure C-2 shows an overall downward trend in state technology spending as a percentage of total state spending. This number has decreased in the last six years, from about 3.7% to 2.7%. In 2003, the National Association of State Chief Information Officers (NASCIO) found that the average technology spending was 4% across the fifty states. As more recent data becomes available from NASCIO, DIR will compare Texas trends with other states.

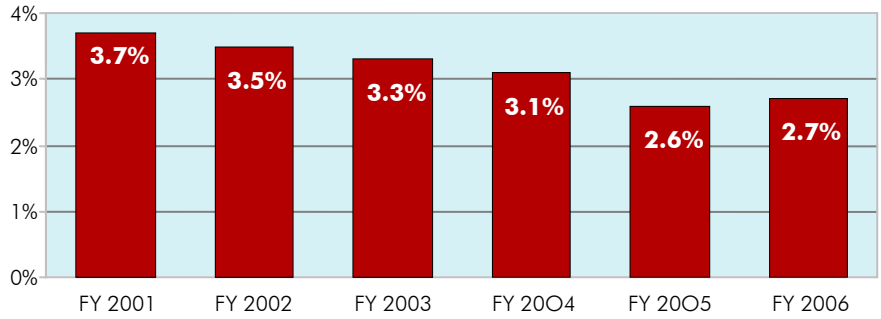


Figure C-2. Annual Technology Spending as Percentage of Total State Spending

IMPROVING THE METHODOLOGY

DIR has collaborated with the CPA, LBB, and other oversight agencies to improve data reporting structures to yield more accurate and consistent expenditure estimates.

- Standard Technology Cost Towers – Through its Information Technology Detail (ITD) schedule, the LBB now asks agencies to allocate their total technology budget requests across nine standard "cost towers." DIR will analyze recently submitted statewide ITD data and publish the results in March 2007.

- Uniform Statewide Accounting System – Clarifications made in 2004 by the CPA have improved the consistency of agency reporting of certain types of technology expenditures. For example, DIR analysis of USAS transaction data reported under "Other Professional Services" (object code 7253) indicates that the agencies have largely stopped using this category for technology-related professional services. Through the Technology Information Alignment Committee (see *Critical Issue 4*), DIR is considering the benefits versus costs of adding object codes to USAS that would further improve the accuracy of expenditure tracking for technology projects.

- Technology Staff Compensation – As noted earlier, data from the data center services initiative and EDUCAUSE were used to estimate technology staff and compensation levels. In addition, DIR and other oversight continue to explore opportunities for improvement in this area.

- Planned Procurement Schedule – Through the semiannual Planned Procurement Schedule (PPS), DIR has begun collecting information from agencies on their planned technology procurements. The Planned Procurement Schedule will provide useful data for future analysis because it includes very precise categories of technology goods and services.

- Data Center Services Initiative – Over time, the state's data center operations are conducted through one of the state data center facilities, tracking and reporting of the state's technology assets and expenditures will become simpler and more accurate.

Progress on Statewide Initiatives

The state has made substantial progress toward achieving the goals, objectives, and strategies described in *Shared Success*. The following pages provide the status and outcomes related to key strategies and objectives comprising each of the layers of the Texas Model for the Enterprise. The table below is reprinted from *Shared Success*.

Strategic Goals

- Reduce government costs
- Drive effective technology contracting
- Leverage shared technology operations
- Promote innovative use of technology that adds value
- Protect technology and information assets

	Statewide Objective	Statewide Strategy	Strategic Goals: Reduce Costs	Effective Contracting	Shared Operations	Innovative Use	Secure Resources
STATEWIDE INFRASTRUCTURE	1 DATA CENTER Reduce cost, eliminate duplication, and improve performance of data center services (p. 44)	1.1 Maximize the value of current data center resources	✓	✓	✓		✓
		1.2 Implement a shared data center system	✓	✓	✓		✓
	2 SECURITY Safeguard information and communications technology assets (p. 48)	2.1 Develop and implement a comprehensive security program		✓	✓	✓	✓
		2.2 Enhance network security operations	✓	✓	✓		✓
	3 NETWORK Leverage shared network operations and resources (p. 52)	3.1 Upgrade and optimize the shared network infrastructure	✓	✓	✓		✓
		3.2 Gain new business value from advanced network services	✓	✓	✓	✓	✓
	4 SHARED APPLICATIONS Solve common business problems through shared applications (p. 55)	4.1 Offer additional electronic government services to Texans	✓	✓	✓	✓	✓
		4.2 Offer shared applications when common needs exist	✓	✓	✓	✓	✓
	5 PROCUREMENT Maximize buying power on technologies and services (p. 58)	5.1 Build a scalable commodity procurement infrastructure	✓	✓		✓	
		5.2 Deliver the full potential of the cooperative contracts program	✓	✓	✓	✓	
COLLABORATION	6 PROJECT DELIVERY Ensure maximum results from state projects (p. 61)	6.1 Implement the Texas Project Delivery Framework	✓	✓		✓	✓
		6.2 Support and share systems development best practices	✓	✓		✓	✓
	7 ARCHITECTURE Encourage business and technology architectures that drive improved planning and coordination (p. 64)	7.1 Support the development of agency architectures	✓	✓		✓	
		7.2 Incorporate technology reuse into agency architectures	✓	✓		✓	✓
		7.3 Align common aspects of agency architectures	✓	✓		✓	✓
	8 STATE REVIEWS Enhance value of state reviews (p. 68)	8.1 Streamline technology and information reporting	✓	✓		✓	✓
		8.2 Align and improve review processes	✓	✓	✓	✓	✓
	9 DATA MANAGEMENT+ACCESS Increase the value of electronic data and information (p. 72)	9.1 Manage electronic data/information systematically/efficiently	✓			✓	✓
		9.2 Expand government Web site usability	✓	✓		✓	
		9.3 Protect the privacy of personal information in state custody				✓	✓
AGENCY	10 CORE MISSION Deploy innovative, value-added technology solutions to meet agency core missions	10 Fulfilled by each agency examining its core mission and acting upon that mission as directed by the Legislature	✓	✓	✓	✓	✓

1 – DATA CENTER

OBJECTIVE: REDUCE COST, ELIMINATE DUPLICATION, AND IMPROVE PERFORMANCE OF DATA CENTER SERVICES

STRATEGY 1.1
MAXIMIZE THE VALUE OF CURRENT DATA CENTER RESOURCES

BACKGROUND

Texas has made a substantial investment in state and agency data centers. Current data center resources include the state data center in San Angelo and a number of agency facilities across the state. During this biennium, DIR will work with other agencies to assess data center and disaster recovery purchases and determine when migrating existing, agency operations to the current state data center is cost effective.

BENEFITS

- Contains or reduces data center and disaster recovery costs
- Improves the utilization of the current state data center
- Enhances security of state data and systems

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Publish the *Statewide Technology Center Guide for Data Center and Disaster Recovery Services* with the new processes for DIR review and approval of data center and disaster recovery expenditures
- Assess planned data center and disaster recovery expenditures
- Evaluate at least three agency data center operations in the fiscal 2006–07 biennium and, if cost effective, migrate to the current state data center

AGENCY

- Review statutory requirements for state chief technology officer approval of data center and disaster recovery expenditures
- Provide information on planned data center and disaster recovery expenditures
- Review and follow the *Statewide Technology Center Guide for Data Center and Disaster Recovery Services* for changes in procedures that must be incorporated into agency processes
- Participate (current state data center customers) in the state data center advisory board

SHARED RESULTS

To maximize the value of current data center resources, DIR, in coordination with state agencies, accomplished the following key project milestones:

✓ *Statewide Technology Center Guide for Data Center and Disaster Recovery Services* – Mar-06

Through evaluation of Planned Procurement Schedules, DIR assessed planned data center and disaster recovery expenditures. Additionally, DIR has worked with several agencies to evaluate at least three agency data center operations in the fiscal 2006–07 biennium and to determine cost-effectiveness to migrate to the state data center.

This effort included the following new and additional service evaluations:

- ✓ 2-1-1 Server Backups – submitted: 6-Apr-2006; amount: $373,833; outcome: transferred to state data center
- ✓ Railroad Commission (new, upgraded mainframe with additional storage and tape capabilities) – submitted: 15-Nov-2005; amount: $3,907,662; outcome: held for data center services contract
- ✓ TexasOnline.com Storage Area Network and Monitoring – submitted: 16-Jun and 18-Apr-2006; amount: $97,374; outcome: transferred to state data center
- ✓ Texas Department of Transportation (dedicated mainframe, Registration and Titling System servers, and associated disk and tape storage subsystems) – submitted: 15-Jun-2005 (Jun-05–Jul-09); amount: $20,418,727; outcome: transferred to state data center
- ✓ Health and Human Services HSAS Contract Extension – submitted: 22-Feb-2006; amount: $3,187,242; outcome: approved
- ✓ Attorney General's Office Contract Extension – submitted: 30-Sep-2005; amount: $2,078,280; outcome: approved
- ✓ Texas Workforce Commission Upgrade and Contract Extension – submitted: 24-Oct-2005; amount: $2,813,320; outcome: approved

An upcoming key milestone includes:

- Report on results of evaluating cost effectiveness of at least three agencies' potential migration to the current state data center – Aug-07

STRATEGY 1.2
IMPLEMENT A SHARED DATA CENTER SYSTEM

BACKGROUND

To meet stakeholder needs, grow with program changes, and adapt to ever-changing technologies, Texas needs a flexible, secure, and reliable environment for data center and disaster recovery operations. To effectively address these requirements, the state will issue a competitive procurement to select a service provider to manage data center and disaster recovery services for state agencies. This consolidated data center system will reduce statewide costs, improve or maintain performance levels, raise security and disaster recovery capability to consistent standards, and provide the flexibility required to respond to changing agency needs.

BENEFITS

- Improves the efficiency of existing data center operations for agencies, increases the security of agencies' data, and reduces statewide costs for those services
- Provides a process for data center consolidation that minimizes risk, maximizes cost savings, and establishes a rigorous vendor management function within the state
- Leverages the state's purchasing power through a competitive procurement
- Enables agencies to focus on mission-critical applications and services

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Ensure agency involvement throughout the procurement process via evaluation teams and Executive Advisory Panel
- Collect information on data center-related assets, services, service levels, and expenditures for prioritized agencies
- Define data center and disaster recovery services through administrative rule
- Provide updates on the progress of the data center services project to agencies and the public through the DIR Web site and other venues
- Develop and execute interagency contracts with state agencies
- Develop a cost allocation methodology that complies with requirements of all funding sources, including federal agencies
- Develop technical requirements for the data center services contract
- Conduct a competitive solicitation for the data center services contract
- Establish a statewide strategy and governance model to actively manage the data center services contract, services, and service levels
- Negotiate, sign, and manage a contract to consolidate, optimize, and operate data center services
- Report annually to the Texas Legislature on the status of reviews and transfers accomplished during the fiscal year and provide an update on the status of any contracts related to data center services
- Work with institutions of higher education to collect a detailed inventory of their enterprise computing data center services
- Report to the LBB and the Governor on the results of the inventory and recommendations regarding data center consolidation (Sep-06)

AGENCY

- Review and execute an interagency contract with DIR (Mar-06)
- Actively participate in data center procurement activities to provide requirements, business needs, and expertise to the process (prioritized agencies)
- Work with DIR to complete all requirements for continued federal financial participation (prioritized agencies)
- Provide information (prioritized agencies) on data center-related assets, services, and service levels
- Work with DIR (prioritized agencies) to transition data center and disaster recovery operations and services to the new contract
- Submit a detailed inventory (institutions of higher education) of data center services to DIR and assist in the assessment of consolidation opportunities

SHARED RESULTS

The data center services project will consolidate 31 data centers across 27 agencies into two or more facilities. This project includes active involvement of all participating agencies throughout the process. It is based on proven best practices and has established a process by which to compare current cost with vendor proposed costs to determine the best value for the state.

The strategy to implement shared data center services has completed all key project milestones as scheduled, including:

- ✓ Adoption of proposed administrative rule on center and disaster recovery service definitions (1 TAC 215) – Dec-05
- ✓ Interagency contract execution – 31-Mar-06
- ✓ Data center cost allocation methodology (initial) – 31-Mar-06
- ✓ Data center services RFO – 31-Mar-06
- ✓ Data center strategy report to Legislature – 31-Aug-06
- ✓ Report on higher education institution inventory results and recommendations – 1-Sep-06

Upcoming key milestones include:

- Contract award of shared data center system – 30-Nov-06
- Commencement of new data center services contract – 31-Mar-07
- Expiration of current contract – 31-Aug-07

Additional milestones/activities completed (✓) and planned (•) by agency and DIR staff include:

- ✓ Change management training courses for affected employees and technology supervisors – ongoing
- ✓ FTE Verification – 22-Sep-06
- ✓ Due Diligence – 29-Sep-06
- ✓ Best and Final Offers Review – Oct-06
- • Employee Offers – Dec-06
- • Transition Planning – Dec-06–Mar-07

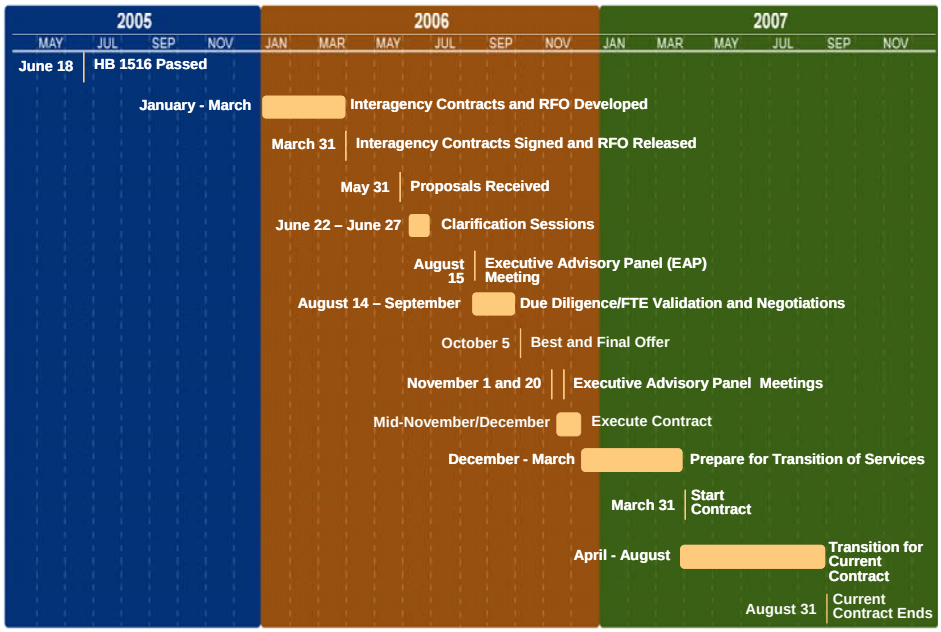


Figure D.1: Data Center Services Procurement Timeline

2 – SECURITY

OBJECTIVE: SAFEGUARD INFORMATION AND COMMUNICATIONS TECHNOLOGY ASSETS

STRATEGY 2.1
DEVELOP AND IMPLEMENT A COMPREHENSIVE SECURITY PROGRAM

BACKGROUND

The state must implement a comprehensive security program to leverage and manage all of its critical information and communications technology assets. DIR completed an assessment of technology security resources and practices at state agencies. As part of this effort, DIR identified commonalities in technology security architecture, assets, personnel credentials, training, and polices and procedures. The confidential assessment report, published in December 2005, highlights areas of technology security that are in need of improvement, are redundant, or have operational inefficiencies. The report identifies opportunities where technology collaboration among agencies will benefit the state. The assessment helped form the basis for DIR's ongoing work with state and other government agencies to further develop a comprehensive security program that protects the state's information and communications technology assets and infrastructure.

BENEFITS

- Emphasizes a higher priority on information and communications technology security requirements, resulting in a more effective state investment in technology security
- Increases availability of additional technology security resources through collaboration and coordination
- Improves security of state technology infrastructure and the data and information maintained in that infrastructure

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Collect information on agency security assets and resources and evaluate commonalities in technology security architecture, assets, training, and polices and procedures
- Prepare and submit a report to the Legislature describing the results of the statewide technology security assessment (Dec-05)
- Develop a comprehensive strategy for advancing a statewide security program that:
  - Addresses incident response and other training
  - Promotes information classification
  - Establishes an approach to engage agencies in proof-of-concept pilots
  - Provides for topical workshops on emerging security issues
- Promote, through administrative rule, improvements to statewide security practices and state agency policies
- Ensure alignment with the Texas Homeland Security Strategic Plan for the collection, integration, and protection of homeland security-related information

AGENCY

- Continue to participate in current and ongoing statewide assessment activities
- Incorporate and implement periodic information vulnerability assessments into agency security policy
- Establish a means to track and provide information regarding requested and allocated technology security budgets
- Participate in training opportunities
- Evaluate and classify information that defines required information security protection levels
- Work with DIR to plan, execute, and evaluate proof-of-concept pilots and topical workshops

SHARED RESULTS

DIR has made significant headway in developing and implementing a comprehensive security program. DIR collected and evaluated information on agency security assets and resources and developed plans to enhance statewide technology security through the following key milestones:

- ✓ Confidential statewide technology security assessment completed – Jul-05
- ✓ Results of the statewide technology security assessment to the Legislature – Dec-05
- ✓ Publication of Homeland Security Implementation Plan in alignment with state and federal strategies – Feb-06
- ✓ Submission of Homeland Security Grant Program request to meet legislative mandate and initiate sustainable information security programs for state agencies – Feb-06
- ✓ Agency evaluation of DIR-sponsored risk assessment technology as proof-of-concept pilot program – Jul-06
- ✓ Publication of improved Internet, e-mail, peer-to-peer, and instant messaging security practices for state agencies – Jul-06

Upcoming key milestones include:

- Publication of the *State Enterprise Security Plan to Secure Texas Information Resources* – Dec-06
- Recommendation of adoption of proposed changes to information security standards (1 TAC 202) to DIR Board – 2007

STRATEGY 2.2
ENHANCE NETWORK SECURITY OPERATIONS

BACKGROUND

Rapid advances in science and technology have significantly accelerated the convergence of computer and communications networks. However, the advances and convergence also pose unprecedented security challenges of uncertain character and scale. In developing a statewide network infrastructure, the state must prioritize requirements for security in concert with increased functionality and efficiency.

The state must ensure that government networks are secure as part of its overall information and communications technology security strategy. By consolidating the functions of a network operations center into a state network and security operations center, the state will strengthen its ability to protect these critical infrastructures and provide more collaborative opportunities for agencies to share information and effectively plan against security threats. DIR is authorized to establish this center on a cost-recovery basis to manage and deliver network security system services to state agencies (TGC § 2059.151). Services delivered by the center may also be provided to non-state entities by mutual agreement (TGC § 2059.051).

BENEFITS

- Expands and enhances availability of security services to agencies through a shared statewide network security and operations center
- Provides faster response to newly identified external threats
- Broadens the scope and availability of security training
- Improves security planning and collaboration opportunities through a information security portal
- Reduces internal dependencies through resource sharing within Texas, among other states, and nationally

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Establish shared statewide network security and operations center for state agencies and other government entities that participate in the statewide network infrastructure
- Adopt and provide network security guidelines and standard operating procedures for the shared statewide network security and operations center
- Incorporate assessment findings and recommendations into plans for a shared statewide network security and operations center, including:
  - Develop a comprehensive statewide computer incident response and recovery capability
  - Develop and deploy a comprehensive technology security training program
  - Develop and administer a collaborative secure information security portal for state agencies and local governments
- Work with agencies to conduct a study on user access technology and submit recommendations to the Legislature regarding interoperability, scalability, cost savings, and security benefits to enhance network security (Dec-06)
- Report on the status of services provided through the shared statewide network security and operations center and on the center's accomplishments toward meeting its service objectives and other performance measures (2006 BPR)

AGENCY

- Determine benefits and capabilities of the shared statewide network security and operations center in reviewing and assessing opportunities to leverage and participate in the statewide network infrastructure
- Review agency policies for compliance with state network security policies, guidelines, and standard operating procedures
- Assess current network security resources to identify requirements for information sharing
- Establish a means to assess, track, and provide information regarding technology security training investments and needs to DIR
- Participate in collaborative opportunities, such as the statewide computer security incident response and recovery capability program
- Participate (affected agencies) in determining the feasibility and benefits of user access technology

SHARED RESULTS

The Texas Computer Network Security System was established by the 79th Legislature and codified in TGC § 2059. This statute requires DIR to establish a network security center to provide network security

services to state agencies. DIR has initiated the development of a Network Security and Operations Center (NSOC) that operates on a cost-recovery basis to manage and deliver secure network services through the statewide communications infrastructure.

In support of the NSOC transition, DIR has partnered with Texas A&M University to pilot a statewide risk assessment program and collaborated with the Multi-State Information Sharing and Analysis Center to establish a state and local government information security training partnership series with SANS Institute. Other activities include the negotiation of cost-effective managed security services that will enhance the delivery of vulnerability assessments, among other services.

As required by TGC § 2059.057, DIR's accomplishment of service objectives and performance measures of the Network Security and Operations Center follows:

- Although DIR's request for Homeland Security Grant Program funding (Feb-06) did not result in any state allocation of funding for NSOC-related programs (Jul-06), DIR has obligated funding and completed the initial design review for a new NSOC facility that will be collocated with the Network Operations Center for improved operational flexibility, security, and economies of scale. In anticipation of the NSOC buildout, DIR has already expanded and re-shaped its organizational structure to address the convergence of information and communications technologies. (Oct-07)

- DIR has doubled its dedicated IT security staffing levels by establishing a unit for network security services as an integral component of the statewide communications network. As a result of this accelerated commitment and the cooperation of state agencies, DIR focused its efforts on more comprehensive security assessments for prioritized state agencies, initiating more than 30 in-depth assessments in fiscal 2006, with plans to increase this number in fiscal 2007. These confidential assessments and associated remediation activities support participating agencies' pursuit of enhanced security postures.

The following key project milestone to enhance network security operations is under development:

- Interagency feasibility study and recommendations on access technology to Legislature – Dec-06

Upcoming key milestones include:

- Information security training program deployment – Feb-07
- Secure Web portal launch – Feb-07
- NSOC guidelines and standard operating procedures – Jun-07
- Buildout to accommodate NSOC complete – Oct-07
- Incident-handling certification for computer security incident response team – Dec-07

3 – NETWORK

OBJECTIVE: LEVERAGE SHARED NETWORK OPERATIONS AND RESOURCES

STRATEGY 3.1
UPGRADE AND OPTIMIZE THE SHARED NETWORK INFRASTRUCTURE

BACKGROUND

Upgrading and optimizing services provided by the statewide network infrastructure will streamline operations, integrate common functions, and more effectively share network resources. DIR will work to upgrade the state's existing communications infrastructure to incorporate modern, proven technologies, such as Multiprotocol Label Switching (MPLS), to support convergence of voice, data, and video across the state enterprise.

The new statewide network infrastructure will afford additional features and functionality including:

- Network traffic prioritization through "quality of service" classifications
- Increased scalability
- Enhanced network security through Internet Protocol Virtual Private Networks
- Improved bandwidth utilization

BENEFITS

- Enhances capability to support and expand service offerings
- Provides an opportunity for cost savings statewide
- Allows for convergence of voice and data networks
- Facilitates implementation of VoIP technology
- Enhances network survivability and reliability

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Expand the current 2-1-1 platform to deliver a shared, secure, statewide IP infrastructure available to all state agencies
- Implement VoIP services within the Capitol Complex
- Expand and upgrade the high-speed, fiber-optic Austin metropolitan area network
- Leverage the Lonestar Education and Research Network for business continuity and data traffic transport

AGENCY

- Review and consider network premise equipment upgrades in order to leverage MPLS and converged network service capabilities
- Assess opportunities to leverage the statewide network infrastructure or services before procuring additional communications network resources
- Inform DIR of communications service needs so DIR can comprehensively plan to provision the required services

SHARED RESULTS

DIR has implemented an enterprise IP communications network that enhances converged services for voice, video, and data. The enhanced services included the upgrade of the legacy WAN with MPLS. DIR is collaborating with HHSC to migrate their legacy WAN to the MPLS network, which provides a more scalable IP services platform with additional security that can be effectively utilized by state agencies.

In addition, HHSC transferred the 2-1-1 telecommunications infrastructure to DIR, providing the catalyst for DIR's fully deployed IP communications network that can be leveraged by other state agencies. The pilot VoIP-to-desktop implementation within DIR has established a platform that can be expanded across the Capitol Complex Telephone System.

The strategy to upgrade and optimize the shared network infrastructure has accomplished the following key project milestones:

- ✓ 2-1-1 telecommunication network scaled into IP communications network – Jan-06
- ✓ SONET bandwidth and capacity expansion (up to OC192) – Mar-06
- ✓ VoIP pilot completion at DIR – Apr-06
- ✓ Statewide IP infrastructure (IP services gateway) implementation – Sep-06

Upcoming key milestones include:

- Legacy WAN consolidation into the statewide IP infrastructure – FY-07
- VoIP service offering established for Capitol Complex customers – FY-07
- Statewide IP infrastructure connectivity established; Lonestar Education and Research Network transport for eligible communications utilized, as appropriate – FY-07

STRATEGY 3.2
GAIN NEW BUSINESS VALUE FROM ADVANCED NETWORK SERVICES

BACKGROUND

The upgrade and optimization of the statewide network infrastructure and resources will allow state and local government agencies to select from an expanded suite of high performance, cost-effective communications service solutions. These solutions will provide opportunities for interagency collaboration and will support agency efforts to achieve enhanced business value by providing:

- Cost savings by taking advantage of new shared network services
- Improved efficiencies through advanced network services
- Increased productivity from the use of advanced network services and applications

Two examples of the advanced network service solutions designed to add business value are VoIP and interactive voice response (IVR) services.

BENEFITS

- Promotes use of advanced communications services
- Provides citizens additional avenues to interact with Texas government
- Realizes cost savings
- Increases agency efficiencies using advanced network services

- Increases agency and staff productivity by providing effective networking and communications solutions
- Facilitates interagency and intergovernmental collaboration through the Texas Collaboration Forum

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Extend advanced services, such as VoIP and IVR, to support government agencies across the state
- Develop a set of best practices, with assistance from the VoIP workgroup, to inform and assist agencies that are considering a migration to VoIP
- Participate in the Texas Collaboration Forum to facilitate and promote interagency and intergovernmental collaborative efforts

AGENCY

- Consider shared network services and solutions available statewide before independently procuring additional network infrastructure or services
- Review and follow, where applicable, best practices as defined by the VoIP workgroup
- Review options available through the Texas Collaboration Forum for projects that have a high degree of complexity or that could benefit other entities

SHARED RESULTS

VoIP Best Practices were developed with a multi-agency work group offering guidance to agencies interested in implementing VoIP. DIR has worked with the Texas Commission on State Emergency Communications to assist one of the agency's programs, the Texas Poison Control Network, in migrating from its disparate voice, data, and video networks to a consolidated, converged solution.

The strategy to gain new business value from advanced network services has accomplished the following key project milestones:

✓ Advanced communications services offered through DIR's IP communication network – Sep-05
✓ VoIP Best Practices draft posted for review – Sep-06

Upcoming key milestones include:

- Competitive procurement to expand suite of managed communications service providers and solutions for customers – FY-07
- Texas Collaboration Forum established – FY-07

4 – SHARED SERVICES

OBJECTIVE: SOLVE COMMON BUSINESS PROBLEMS THROUGH SHARED APPLICATIONS

STRATEGY 4.1
OFFER ADDITIONAL ELECTRONIC GOVERNMENT SERVICES TO THE STATE'S CITIZENS

BACKGROUND

Bringing government services online not only improves access to services for Texans, but also helps to streamline and improve agency business processes. While the most visible example of electronic government services is seen on the state portal, TexasOnline.com, virtually all government entities provide information or deliver services online. These citizen-facing services allow Texans to transact business with the state from any location at their convenience.

BENEFITS

- Increases opportunities for citizens to obtain state and local government information and services electronically
- Streamlines and reduces agencies' cost of interactions with other agencies and the public
- Provides cost savings and improved customer service by automating business processes and customer calls, reducing customer transaction and hold time, and improving transaction accuracy

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Implement a user authentication system to allow an application to be accepted online and serve as an electronic replacement for a signature or notary signature
- Support current and projected TexasOnline.com initiatives, including Common Occupational Licensing System–Bulk Processing, Motor Vehicle Inspection, and Vital Records
- Initiate electronic government services for Texans, including:
  - Implement Phase III of the initiative by the Governor's Office to deliver integrated services to business customers
  - Establish capability to post or search grant opportunities online
  - Provide assistance to Texas Education Agency in delivery of an education portal
- Implement IVR technology to provide an alternative access to TexasOnline.com applications

AGENCY

- Create interfaces with TexasOnline.com to make use of user authentication system, as appropriate
- Work with DIR to determine integration requirements with portals for business customers
- Participate in DIR's electronic grants initiative (grant-providing agencies) and provide requirements for an electronic grants search system
- Inventory service delivery applications and supporting processes to assess the feasibility of delivery through the state's portal

SHARED RESULTS

DIR collaborates with state agency and public sector partners to extend government services to Texans over a secure Internet infrastructure through TexasOnline.com. Several new programs were added to TexasOnline.com in fiscal 2006, including access to vital records and a business portal that simplifies the process of starting a business in Texas into four easy steps. Additionally, an emergency preparedness portal debuted in time for the 2006 hurricane season. This portal is designed to assist Texans in preparing for natural disasters and provides information such as weather updates, accessing government resources, and evacuation routes.

The strategy to offer additional electronic government services to the state's citizens has accomplished the following key project milestones:

- ✓ User authentication system implementation – Jun-05
- ✓ Vital records implementation – Dec-05
- ✓ Emergency preparedness portal implementation – May-06

Upcoming key milestones include:

- Implementation of consolidated application that delivers integrated services to business customers – Dec-06
- TexasOnline.com Automated Vehicle Inspection System implementation – Jan-07
- TexasOnline.com grant searches implementation – Mar-07
- Alternative access to TexasOnline.com through IVR technology (first group of agencies) – Dec-07

STRATEGY 4.2
OFFER SHARED APPLICATIONS WHEN COMMON NEEDS EXIST

BACKGROUND

By considering opportunities to share common administrative or support functions and applications (for example, sharing common functions supported by an enterprise messaging and collaboration system) the state stands to gain from economies of scale, standardization of practices, and improvements to service delivery. Factors, such as cost savings, service improvement opportunities, and the appropriate alignment of agency-specific applications with business, are key elements to consider within the business cases for these potential initiatives. The reviews of future shared applications are further described in Strategy 7.3.

BENEFITS

- Creates opportunities to improve performance, realize operational efficiencies, and lower costs
- Delivers business process standardization and minimizes cost of ongoing agency-specific customization
- Provides enhanced functionality and helps agencies focus on their core missions

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Implement enterprise messaging and collaboration services through a subscription-based, fee-for-service to state agencies that participate in the initial offering
- Expand enterprise messaging and collaboration services to other eligible entities

AGENCY

- Review and compare services provided through the enterprise messaging and collaboration system to existing and future acquisitions of similar technologies
- Review opportunities to develop common applications for individual business units

SHARED RESULTS

To leverage economies of scale and enhance existing e-mail functionality, DIR, with support from the Health and Human Services Commission and several other agencies, issued a Request for Offer in fiscal 2005 for enterprise messaging and collaboration services. A contract for services was executed in March 2006 that provides Texas state agencies and other publicly-funded organizations with high-quality managed messaging (e-mail) and collaboration services. In addition to defined service levels, high availability, state-of-the-art security, and low total cost of ownership, the solution includes a range of options to meet the varying needs of customers. All services are offered at a fixed and predictable rate on a per-mailbox-per-month basis.

The strategy to offer shared applications when common needs exist has accomplished the following key project milestones:

✓ Enterprise messaging and collaboration services contract execution – Mar-06
✓ Vendor due diligence validation completion – Aug-06

Upcoming key milestones include:

- Hosted messaging and collaboration solution (infrastructure) implementation – Nov-06
- Staged implementation initiation – Dec-06

5 – PROCUREMENT

OBJECTIVE: MAXIMIZE BUYING POWER ON COMMODITY TECHNOLOGIES AND SERVICES

STRATEGY 5.1
BUILD A SCALABLE COMMODITY PROCUREMENT INFRASTRUCTURE

BACKGROUND

DIR managed a substantial volume of technology sales—$667 million last fiscal year. In the future, this volume will increase significantly based on required state agency usage of Technology Cooperative Contracts and the increased voluntary usage of Technology Cooperative Contracts by other DIR customers (TGC § 2157.068). To accommodate these growing demands while continuing to improve performance for a larger base of technology commodity goods and services, DIR will implement measures to enhance and expand the state's cooperative contracts program.

As part of this effort, DIR will continue to work with agencies to collect the information needed to analyze and establish contracting priorities, develop negotiation strategies, and document outcomes. Additionally, DIR will deliver a suite of service and reporting tools that will enhance the customer experience and provide information needed to effectively manage the contracting process.

BENEFITS

- Improves access and provides better information on which to base contracting priorities, strengthens the state's negotiating position, and increases understanding of customer requirements
- Improves customer service through collaboration and facilitates information reporting
- Provides an opportunity for DIR and TBPC to partner on a variety of procurement-related initiatives

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Develop and implement the agency-provided planned procurement schedule required by TGC § 2054.1015, and use that information to determine contracting priorities and to support aggressive vendor negotiations
- Analyze the exemptions requested by state agencies and use that information to drive new contracting opportunities that will bring more value to state agencies
- Implement robust contract and customer management systems within DIR to provide an integrated supply chain management solution, from demand analysis and procurement to customer support and service delivery through effective outreach activities
- Document and report savings and cost reductions and distribute broadly
- Develop a Web-based, customer-facing solution that improves the procurement experience for customers and integrates into a variety of financial systems
- Emphasize opportunities to collaborate with customers to continuously improve the cooperative contracts program
- Promote transparency of the public contracting program by publishing an administrative fee rate schedule for all DIR contracts and an annual report on the state of the cooperative contracts program
- Routinely solicit feedback from cooperative contracts customers to identify improvement opportunities

AGENCY

- Provide accurate and detailed information in their planned procurement schedules
- Participate in workgroups and focus groups for program development
- Provide routine customer satisfaction feedback on the cooperative contracts program

SHARED RESULTS

Since the enactment of TGC § 2157, DIR, together with the state agency customers, has made significant progress towards building a stronger Technology Cooperative Contracts program that will meet customer needs while realizing cost savings. In fiscal 2006, DIR and other state agencies conducted four interagency work groups resulting in clear program guidelines and restructuring of the Technology Staffing Services Program.

The strategy to build a scalable commodity procurement infrastructure has accomplished the following key project milestone:

✓ Planned procurement schedules published for agencies' use – Feb-06

Upcoming key milestones include:

- Implement sourcing solutions and techniques based on business analytics and competitive market intelligence – Jan-07
- Contract and customer management systems implementation within DIR – Oct-07
- Web-based procurement solution (an integrated purchasing portal) deployment – Dec-07
- Presentation of annual review of Technology Cooperative Contracts program – ongoing (first quarter each fiscal year)
- Customer feedback on improvement opportunities – ongoing
- Conduct interagency workgroups to obtain feedback on major Technology Cooperative Contract initiatives – ongoing

STRATEGY 5.2
DELIVER THE FULL POTENTIAL OF THE TECHNOLOGY COOPERATIVE CONTRACTS PROGRAM

BACKGROUND

Over the course of the next biennium, DIR will be examining a variety of technology sourcing strategies and contracting opportunities to deliver on the full potential of DIR's Technology Cooperative Contracts program. This value potential must balance cost, quality, and benefit. This effort will focus on legislative requirements, such as standard configurations and aggregated purchases, as well as innovative sourcing strategies like reverse auctions, indefinite demand/indefinite quantity strategy, and other contract vehicles that provide rebates and other incentives.

BENEFITS

- Delivers significant savings, provides new ideas, enables standardization, and improves service levels
- Streamlines procurement practices and improves efficiency of agency processes
- Reduces length of procurement cycle
- Improves value to customers and vendors

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Provide a series of technology sourcing options and contracting opportunities to vendors that stimulate competition and provide good value to customers
- Work with customers and the vendor community to reengineer technology staffing services and seat management services available through DIR cooperative contracts
- Establish new procurement and contracting strategies for specific technology services and products that fill gaps in current contracts
- Implement a dedicated historically underutilized business contracting program that works in a variety of venues to provide access to contracting opportunities and maximize participation while stimulating competition

AGENCY

- Provide subject area expertise through workgroup and focus group participation to develop standard configurations and refine seat management and technology staffing offerings
- Participate in the development and usage of innovative sourcing procurements, such as aggregated purchasing and reverse auctions
- Provide feedback to DIR on technology sourcing and contracting activities

SHARED RESULTS

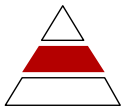
DIR, together with its state agency customers, has made significant progress towards implementing various sourcing strategies, contracting opportunities and vendor outreach initiatives to promote the full potential of the Technology Cooperative Contracts program. Customer and vendor participation has resulted in new and reengineered offerings that deliver value to the state.

The strategy to deliver the full potential of the Technology Cooperative Contracts program has accomplished the following key project milestones:

- ✓ Dedicated HUB Coordinator – Jan-06
- ✓ Collaboration agreement with Texas Association of HUBs – Jan-06
- ✓ Reengineered Staffing Services program – Aug-06
- ✓ Standard configurations for specific commodity products – Sep-06

Upcoming key milestones include:

- Reengineered Seat Management program – Feb-07



6 – PROJECT DELIVERY

OBJECTIVE: ENSURE MAXIMUM RESULTS FROM STATE PROJECTS

STRATEGY 6.1
IMPLEMENT THE TEXAS PROJECT DELIVERY FRAMEWORK

BACKGROUND

Providing proper problem definition, clear requirements, and discrete and measurable outcomes will strengthen results and enhance the value of business automation projects in the eyes of state leadership. The Texas Project Delivery Framework provides the guidance and tools to achieve positive outcomes based on desired business needs.

BENEFITS

- Establishes clear agency head accountability for justification, execution, and outcomes of business automation projects
- Enables consistent project review and evaluation at a statewide level based on benefits realization measurements and lessons learned
- Promotes technology as a conduit to transform business processes to deliver services

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Develop a common and consistent approach to ensure that the planning and delivery of agency projects are aligned with defined business objectives and outcomes
- Develop Framework tools, templates, and guidelines that support project delivery and are aligned with streamlining efforts described in Objective 8
- Develop and deliver Framework educational events and briefings to state agencies with a strong emphasis on training for agency executive management and project managers

AGENCY

- Review and provide guidance on new requirements to utilize the Framework for project delivery
- Follow Framework project delivery requirements based on a philosophy of ongoing process improvement
- Align overall agency governance and project management practices with the Framework for all projects
- Participate in Framework educational events and briefings

SHARED RESULTS

Required use of the Texas Project Delivery Framework by state agencies and institutions of higher learning became effective in September 2005. Development and deployment of the Framework involved active participation of agencies through numerous focus groups and briefings. Agencies were provided an opportunity to give feedback prior to publishing Framework guidance and tools.

As of October 2006, DIR published the initial full release of the Framework, having accomplished the following key project milestones:

- ✓ Statewide Impact Analysis, initial baseline – May-06 (final deliverable subject to Reuse policy completion, 2007)
- ✓ Project Implementation Review Gate deliverables – May-06
- ✓ Framework educational events and training – May-06 (ongoing)
- ✓ Benefits Realization Review Gate deliverables – Oct-06

STRATEGY 6.2
SUPPORT AND SHARE SYSTEMS DEVELOPMENT BEST PRACTICES

BACKGROUND

State information and communications technology managers and professionals have identified a need to promote the use of best practices through a consistent toolset that supports a Software Development Life Cycle (SDLC) methodology. An effective development methodology is required to deliver applications as designed, on time, and within budget.

BENEFITS

- Promotes the use of best practices through a consistent toolset that supports industry development life cycle models
- Provides efficiency through the ability to select and tailor a software development life cycle model based on business need, project requirements, and technology requirements
- Improves the ability to deliver projects that meet agency business expectations within schedule and budget requirements

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Coordinate with agencies to develop SDLC models, tools, and guidance to help agencies develop quality automated systems and business applications
- Examine and adopt appropriate SDLC models to supplement the use of the Framework
- Provide guidelines for evaluation and selection of a development life cycle model based on business need, project requirements, and technology requirements
- Review training opportunities for state agencies needing to acquire expertise in using such methodologies
- Develop recommendations for securing vendor assistance with requirements analysis and validation and verification practices

AGENCY

- Coordinate with DIR to evaluate and adopt life cycle models, tools, and guidelines to help agencies develop quality systems and applications and deliver specified business outcomes
- Review and comment on proposed life cycle models, tools, and guidelines
- Tailor use of SDLC models, tools, and guidelines based on business need, project requirements, and technology requirements
- Consider using training opportunities offered by DIR

- Consider obtaining vendor assistance when planning resource requirements for validation and verification functions of complex projects

SHARED RESULTS

Systems development best practices were developed and published as part of the Texas Project Delivery Framework. A Systems Development Workgroup, comprised of agency representatives, developed and deployed the systems development best practices in collaboration with DIR. Non-participating agencies were provided an opportunity to give feedback prior to publishing. The systems development practices were deployed in June 2006.

The strategy to support and share systems development best practices has accomplished the following key project milestone:

✓ Systems development best practices – Jun-06

Upcoming key milestones include:

- Tailoring guidelines – Q2-FY07
- Systems development educational events – Q4-FY07
- Validation and verification practices recommendations – Q4-FY07

7 – ARCHITECTURE

OBJECTIVE: ENCOURAGE BUSINESS AND TECHNOLOGY ARCHITECTURES THAT DRIVE IMPROVED PLANNING AND COORDINATION

STRATEGY 7.1
SUPPORT THE DEVELOPMENT OF AGENCY ARCHITECTURES

BACKGROUND

Rather than developing a single enterprise architecture to coordinate all state business functions, DIR will lead a statewide effort to support the development of agency architectures. DIR will seek to align these architectures in areas of common interest, such as the sharing and exchange of data and information. This strategy will provide predictability for agencies in developing their own architectures and improve the interoperability and maintainability of state applications.

BENEFITS

- Provides a predictable process for setting and enforcing technology standards
- Reduces the number of supported technologies and improves interoperability and maintainability
- Establishes timelines for migration to emerging technologies or for abandoning obsolete technologies

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Develop and document a policy regarding agency architecture development
- Provide training and assistance to agencies in initiating development of agency architectures
- Review existing policies, procedures, and rules, as well as existing agency architectures, for consistency and improvement
- Ensure that explicit and derived standards are defined, unambiguous, and practical

AGENCY

- Implement agency architectures
- Seek to align agency architectures with state and federal standards

SHARED RESULTS

Standards and guidelines for the development of both business architecture and technical architecture (including information architecture) are being developed in collaboration with agencies representing different sizes and levels of complexity. Ongoing educational events and other forms of assistance and support of agency architecture development and reuse are being provided each quarter, in collaboration with the information resources manager (IRM) education program and other venues.

The strategy to support and share systems development best practices has accomplished the following key project milestones:

✓ Training and agency-assistance in developing Business Architecture – ongoing

✓ Initial statewide technology best practices and guidelines for software acquisition that promote interoperability, security and collaboration as specified in Enterprise Architecture/Business Technology Governance RFO – May-06

Upcoming key milestones include:

- IRSP response evaluation and strategy development to accommodate agency interest and need in the areas of Enterprise Architecture and Service Oriented Architecture – Q1-FY07
- Initial baseline standards and guidelines for Business Architecture published – Q3-FY07

STRATEGY 7.2
INCORPORATE TECHNOLOGY REUSE INTO AGENCY ARCHITECTURES

BACKGROUND

By designing and implementing taxpayer-funded projects so that key assets or processes can be leveraged in future initiatives, Texas can reduce costs and delivery time. Incorporating a culture of reuse into agency architectures, coordinated as appropriate from a statewide level, sets the stage for reduced cost and rapid deployment of new projects in the future.

In support of the "build once, use often" philosophy, DIR will establish and define a program to actively support widespread technology reuse across state government. The proposed initiative will outline specific strategies, methods, and techniques for reuse practices at the statewide and agency level.

BENEFITS

- Improves agencies' ability to achieve cost savings, higher-quality end-product or service, reduced implementation cycle time, and improved long-term productivity

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Develop a model technology reuse policy statement, a set of guiding principles, and guidelines for use by agencies
- Publish findings related to implementing a technology reuse program that achieves widespread adoption by state agencies
- Establish an interagency workgroup to assist in development of the reuse efforts
- Promote, through administrative rule, guidelines for the effective reuse of technology
- Issue guidance to agencies on preparation of statewide impact analysis reports required by TGC § 2054.303
- Review alternatives to leverage a statewide repository of specific strategies, methods, and techniques for more effective technology reuse statewide
- Develop and deliver technology reuse program educational events and briefings for state agencies

AGENCY

- Begin to identify opportunities for technology reuse
- Participate in interagency workgroup
- Participate in technology reuse program educational events and briefings

SHARED RESULTS

The strategy to incorporate technology reuse into agency architectures was initiated through a preliminary interagency workgroup, established in 2006 to provide feedback on the IRSP instructions. Through this and other data gathering efforts, DIR will develop and implement a statewide approach that promotes the alignment of business and technology and provides opportunities for reuse, collaboration, and interoperability. Additionally, the DIR Enterprise Architecture/Service Oriented Architecture program participates in, and will provide resources to, the IT Subcommittee of the State Agency Coordinating Committee, which is addressing reuse for application development.

This strategy to incorporate technology reuse into agency architectures has accomplished the following key project milestones:

- ✓ Establishment of an interagency workgroup (preliminary) to consider and propose guidelines for reuse, expressed through business, technical, and information architecture standards – Mar-06
- ✓ Requirements for Statewide Impact Analysis, initial baseline – May-06
- ✓ Training and assistance in support of agency architecture development and reuse – ongoing, provided in collaboration with the IRM education program and other venues

Upcoming key milestones include:

- Expansion of the interagency workgroup – Jan-07
- Reuse policy, principles, and guidelines for business, technology and information architectures – Q2-FY07
- Development of statewide standards for service taxonomy, specifically for encouraging shared services among agencies through Service Oriented Architecture implementations – Q2-FY07
- DIR Web presence for Enterprise Architecture / Service Oriented Architecture standards and guidelines, as well as published resources regarding currently available services and components – Q3-FY07
- Initial inventory of existing, reusable services and components (both reusable business processes and system components) – Q4-FY07 (inventory initiated through the 2006 IRSP and Statewide Impact Analysis, evaluation in progress)

STRATEGY 7.3
ALIGN COMMON ASPECTS OF AGENCY ARCHITECTURES

BACKGROUND

Through a better understanding of how agencies are planning to deploy technology, the state will be able to proactively identify areas where a business process could be improved with an interagency initiative. If a business process can be aligned by establishing interoperability standards or common processes, coordination initiatives should be identified and established.

BENEFITS

- Improves alignment of agency activities
- Extends the use of existing data for single agency applications to support the needs of the enterprise
- Provides meaningful analysis of options to improve the value of the state's technology investment

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Work with agencies to identify and review business processes that are common across multiple agencies
- Work with Texas Geographic Information Council to develop an enterprise strategy to cost-effectively deliver geospatial technology, such as geographic information systems (GIS) resources and information to state employees and citizens
- Support the efforts of interagency advisory groups managing collaboration initiatives for specific business areas, such as GIS, homeland security, criminal justice, and human services
- Work with advisory councils to identify best practices from other entities that will expedite the development of data models
- Publish standards and specifications for data model development that are recommended by advisory councils
- When appropriate, develop a business case that considers alternatives and recommends actions related to future shared services that will deliver cost savings and value to agencies

AGENCY

- Participate in existing and future advisory groups
- Incorporate interoperability standards when adopted
- Assist with the development of business cases and consideration of alternatives

SHARED RESULTS

DIR has begun to identify and document agency business processes via its collaboration with a cross-section of a volunteer agencies, representing different sizes and levels of complexity. Based on the results of this effort, DIR will evaluate the expansion of this program.

The strategy to align common aspects of agency architectures has accomplished the following key project milestone:

✓ Inventory of state agency geospatial data and Web services – Aug-06

Upcoming key milestones include:

- Initial establishment of taxonomies and lexicons that promote interagency collaboration and communication – Q3-FY07 (note: development of a core taxonomy is in progress through the Streamlined Reporting strategy)
- Identification of opportunities for interagency application development projects, supporting or coordinating non-redundant requirements-gathering efforts, and facilitating interagency risk management and "conflict-of-need" resolution – ongoing (DIR received initial information to evaluate opportunities through 2006 IRSPs)
- Enterprise and shared data model development standards, best practices, and guidelines – Q3-FY07
- Examination of agency initiatives which may support collaborations or opportunities for shared or statewide development of standards and/or systems, using focus groups relevant to each potential initiative – ongoing
- Establishment of an interagency workgroup to identify opportunities and to consider the return on investment and other (technical/architectural) value impacts of the proposed initiatives – Q3-FY07
- Enterprise strategy for the cost-effective delivery of geospatial technology – Q4-FY08

8 – STATE REVIEWS

OBJECTIVE: ENHANCE THE VALUE OF STATE REVIEWS

STRATEGY 8.1
STREAMLINE TECHNOLOGY AND INFORMATION REPORTING

BACKGROUND

Tracking the outcomes from agency and statewide technology investments is a critical government responsibility. Agency reporting should provide insight into the state portfolio of technology assets, including projects, applications, and other resources. To achieve this, the current process of collecting technology asset and planning information from agencies will be reexamined to ensure consistency and a unified view of the state's technology investment. A unified perspective places more useful information in the hands of agency chief information officers, executive directors, oversight entities, and state leadership.

BENEFITS

- Supports effective statewide technology planning and decision making
- Eliminates or minimizes redundant reporting requirements to help agencies better coordinate the input, access, and reporting of technology-related information
- Simplifies the state's technology reporting processes
- Establishes uniform definitions for technology expenditures, assets, and projects
- Enhances electronic data sharing capabilities

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Coordinate with other agencies with oversight responsibilities to analyze and recommend methods to more effectively coordinate planning, budgeting, and reporting of technology expenditures, assets, and projects
- Develop and submit a report to the Texas Legislature that recommends strategies to streamline technology reporting requirements related to planning, budgeting, and procurement (Dec-05)
- Develop an enterprise model to synchronize statewide data collection
- Develop a new DIR data collection and reporting system to replace the Statewide Information Technology Asset Reporting application, which includes Texas Project Delivery Framework reporting and submission of agency IRSPs and is synchronized with information systems and processes at oversight agencies

AGENCY

- Participate in identifying reporting redundancies and opportunities for consolidating agency reports to reduce their reporting burden
- Participate in defining requirements and other project activities that support the development of a new DIR data collection and reporting system

SHARED RESULTS

Section 3.03 of House Bill 1516 (79th Tex. Leg., R.S.) directed DIR, in coordination with the LBB, TBPC, and CPA, to develop strategies to improve technology management, including more effective strategic planning, budgeting, and reporting of technology expenditures, assets, and projects. DIR reported to the 79th Legislature on the major findings that could lead to improvements in a December 2005 publication titled *Statewide Technology Management: Opportunities for Improvement.* A key action specified in this report was to include any legislative recommendations for streamlining technology management and reporting in the 2006 Biennial Performance Report.

One of the findings in the above report is to manage technology data in a way that serves both the oversight needs of the state and the technology planning and implementation requirements of each agency through a unified view of the state's technology investment. This includes expanding the capacity of the state's automated information systems to share information in support of the principle of "collect once, use often." The report also calls for DIR to develop a comprehensive data collection and reporting tool. This tool will be developed and implemented as part of DIR's Technology Reporting, Alignment, and Collaboration (TRAC) Portal project, which encompasses business intelligence/analytics and data warehousing capabilities for statewide technology life cycle data.

The strategy to streamline technology and information reporting has accomplished the following key project milestones:

- ✓ Statewide Technology Management report with three major findings submitted to 79th Legislature – Dec-05
- ✓ Replacement of the State Information Technology Assessment Report with a hosted Web survey system to collect data required by agencies for the IRSP and other planning and reporting information – May-06
- ✓ Legislative recommendation included in the BPR to consolidate technology planning and reporting into the State Strategic Plan and BPR, eliminating stand-alone plans and performance reports related to telecommunications, security, and TexasOnline.com – Nov-06

Upcoming key milestones include:

- Development of recommendations for streamlined reports, sequence and timing – Q1-FY07
- TRAC Portal Project Plan – Q2-FY07
- Development of taxonomies and lexicons for key technology categories, such as "project" and "asset" – Q3-FY07
- Development of data collection guidelines and effective data exchange methods – Q3-FY07

STRATEGY 8.2
ALIGN AND IMPROVE REVIEW PROCESSES

BACKGROUND

DIR will coordinate with oversight agencies to develop opportunities to align and improve overall review processes for contracts, projects, commodity procurements, and reporting of technology assets, budgets, and expenditures. DIR will work with members of the Quality Assurance Team (QAT), Contract Advisory Team (CAT), and other stakeholders to identify opportunities to align specific review processes toward common statewide technology management functions; including strategic planning, spend management,

project monitoring, commodity procurement, and shared services management. Options that will be examined in this effort include improvements to review processes within these stakeholder teams or alignment of existing processes to keep decision makers informed about the progress and health of key state projects and initiatives.

BENEFITS

- Provides more consistent and predictable oversight practices
- Provides more coordinated management of technology projects, contracts, and assets across the enterprise

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Convene an alignment committee to examine current technology review guidelines, responsibilities, and processes, and propose methods to align and improve them
- Align internal quality assurance procedures and guidelines with the Texas Project Delivery Framework
- Align Texas Project Delivery Framework deliverables, QAT guidelines, and CAT review of agency projects with statewide technology management functions
- Provide legislative recommendations on any statutory changes needed to fully align review processes (2006 BPR)

AGENCY

- Provide input to the alignment committee to develop effective oversight guidelines, responsibilities, and processes

SHARED RESULTS

A key outcome from the *Statewide Technology Management: Opportunities for Improvement* report was the convening of the Technology Information Alignment Committee to begin implementing the strategies and actions called for in the report. The alignment committee consists of agencies with oversight responsibilities and other selected agencies or groups that perform or support statewide technology functions.

The alignment committee is beginning to evaluate options for streamlining oversight agency reporting, developing a more "apples-to-apples" statewide taxonomy, and improving meaningful technology data life cycle reporting capabilities. The committee is in the process of reviewing data analysis of oversight agency taxonomies (data elements, data definitions and the relationships between them); analyzing the major drivers and schedules for oversight agency data collection; reviewing high-level business requirements for data warehouse and business intelligence capabilities to better analyze and report on technology data across the life cycle; and proposing recommendations for taxonomy, report content/scheduling and technology data life cycle analysis and reporting.

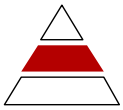
The strategy to align and improve review processes has accomplished the following key project milestones:

- ✓ The Technology Information Alignment Committee convened and workgroups established to develop strategies for standardizing technology information data models, coordinating data collection systems, and streamlining reporting processes – Mar-06
- ✓ Contract management guide and CAT review reconciliation with Framework – Mar-06 with ongoing support to incorporate revisions in the guide and Framework, as appropriate

- ✓ Legislative recommendation in the BPR to consolidate strategic planning in the agency strategic plan and reduce agency reporting burdens during even-numbered years prior to legislative sessions – Nov-06
- ✓ Legislative recommendation in the BPR to integrate quality assurance and project management requirements in statute to ensure effective project management practices at the statewide and agency levels – Nov-06

Upcoming key milestones include:

- Quality assurance guidelines reconciliation with Framework – Dec-06
- Statewide oversight policy reconciliation with Framework – Dec-06 with ongoing support to QAT and CAT
- Business automation solution development for statewide project delivery requirements – Q4-FY07



9 – DATA MANAGEMENT + ACCESS

OBJECTIVE: INCREASE THE VALUE OF ELECTRONIC DATA AND INFORMATION

STRATEGY 9.1
MANAGE ELECTRONIC DATA AND INFORMATION SYSTEMATICALLY AND EFFICIENTLY

BACKGROUND

Data, information, and records management permeate all agency business processes and intersect with all lines of business. Because so much information exists in multiple devices, in many versions, and in many different applications, locating and retrieving required information is difficult and expensive. According to recent studies by several research groups, employees spend from 15 to 35 percent of their time looking for specific information, but successfully find it only half the time. Besides wasted staff time, the uncontrolled growth of data and information increases storage and maintenance costs and reduces system performance.

BENEFITS

- Achieves greater business efficiencies and productivity
- Meets legislative and regulatory compliance requirements
- Reduces costs associated with the infrastructure, administration, and management of data and electronic records
- Preserves documents crucial to government accountability and state history

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Collaborate with the Texas State Library and Archives Commission (TSLAC) and others to develop policies, procedures, guidelines, or best practices for selected data and electronic records management issues
- Work with other government entities to identify opportunities for improving data management
- Coordinate with TSLAC to study and develop a statewide strategy for preserving digital information of historical value

AGENCY

- Participate in data and information management workgroups
- Use guidelines for improving data and electronic records management developed through statewide workgroups to create internal data and information management practices
- Comply with TSLAC's administrative rules, "Electronic Records Standards and Procedures"
- Attend data and information management educational events
- Develop and implement procedures and technologies to preserve historical records

SHARED RESULTS

DIR has collaborated with TSLAC and others to develop policies, procedures, guidelines, or best practices for selected data and electronic records management issues.

The strategy to manage electronic data and information systematically and efficiently has accomplished the following key project milestones:

- ✓ Completion of Library of Congress National Digital Information Infrastructure and Preservation Program Survey (in conjunction with TSLAC) – Feb-06
- ✓ Publication of Data and Electronic Records Management Reference Guides – Apr-06

An upcoming key milestone includes:

- IRSP response evaluation regarding data management interest and needs among agencies, with ongoing collaboration and exploration of possible shared initiatives to promote statewide guidelines for data management – Q2-FY07

STRATEGY 9.2
EXPAND GOVERNMENT WEB SITE USABILITY

BACKGROUND

Government information and services should be usable by all of the state's citizens who need or want them. In the past, agencies met citizen needs by distributing printed publications about available programs and services. Citizens interacted with agencies by face-to-face meetings, through telephone calls, or by written correspondence. Government information now is increasingly distributed through electronic means over the Internet. Citizens can access information and services at their own convenience if they have the means and ability to find it.

BENEFITS

- Enables all users of state services to access the data and information they need quickly and inexpensively
- Promotes an informed citizenry
- Facilitates access for Texans who are disabled
- Facilitates access for Texans whose primary language is Spanish

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Promote, through administrative rule, the need for agencies to provide accessible electronic and information resources for use by state employees with disabilities
- Revise the administrative rule on Web accessibility to align requirements with national standards and provide for the translation of English content into Spanish
- Assess the need for additional training for state agencies in accessible Web site design and testing
- Perform annual assessment of state agency Web sites and report on agency compliance with accessibility standards required by TGC § 2054.454 (2006 BPR)
- Make a reasonable effort to ensure that state employees with disabilities have the same level of access to information resources as those without disabilities
- Make a reasonable effort to ensure that Spanish speakers with limited English proficiency can access the agency's online information and services

AGENCY

- Make a reasonable effort to ensure that persons with disabilities have access to the agency's online information and services
- Attend DIR training on new technology access requirements
- Participate in DIR's annual assessment of state Web site compliance with accessibility standards required by TGC § 2054.454
- Make print publications that are available through free subscriptions available online, and notify subscribers of their online availability
- Make any forms used by the public available on the agency Web site

SHARED RESULTS

The 79th Legislature amended Chapter 2054 of Texas Government Code by adding Section 2054.456–457 (Access to Electronic and Information Resources by Individuals with Disabilities). In updating administrative rule and guidelines to implement the provisions of this statute, DIR collaborated with disability advocates, state agencies and institutions of higher education. A primary outcome of this effort was the revision of the Web accessibility and usability section of DIR's State Web Site Guidelines. These guidelines support the State Web Site rule, 1 TAC 206, which provides references and assistance to agency staff involved in producing and maintaining state Web sites.

DIR is developing an online survey for state agencies to ensure they are complying with federal "Section 508" requirements (Rehabilitation Act of 1973, 29 U.S.C. § 794(d)). Section 508 requirements include text alternatives for non-text content, checking for accessibility, accessible navigation, image maps, audio and multimedia, accessible forms, accessible tables, scripts and applets, and using style sheets. As a requirement of the 2006 IRSP, DIR surveyed agencies for general compliance with state Web accessibility standards. A summary of the information reported is provided in *Appendix B*.

As previously highlighted in this report, the state portal, TexasOnline.com, was commended in the 2006 national survey conducted by the Taubman Center for Public Policy of Brown University for its translation of nearly every Web page into Spanish. DIR will continue to collaborate with other agencies to maintain this high standard for translation of government Web pages into Spanish.

The strategy to expand government Web site usability has accomplished the following key project milestones:

- ✓ Accessibility training at monthly PESO working group meetings – ongoing
- ✓ Accessibility guidelines revision on DIR Web site – Feb-06
- ✓ Adoption of administrative rule on state employee accessibility (1 TAC 213, Electronic and Information Resources for State Agencies) – Apr-06
- ✓ Adoption of administrative rule on the usability of Web sites by persons with limited English proficiency (1 TAC 206, State Web Sites) – Apr-06

Key milestones under development or upcoming include:

- Final implementation of statutory requirements for accessibility, including rules and policies for procurement, public reporting of compliance issues, and training and support – Q3-FY07

- Online survey for agency Web site accessibility and compliance with TGC § 2054.454, including agency interest and need in specific training or other resources in support of accessibility initiatives – Q3-FY07

STRATEGY 9.3
PROTECT THE PRIVACY OF PERSONAL INFORMATION IN STATE CUSTODY

BACKGROUND

State and local governments must collect, use, and maintain information obtained from individuals in order to provide services. The bulk of this data is captured and stored in electronic form, making it easy to compile, analyze, and share. The very characteristics that make electronic information a valuable commodity also make it vulnerable to misuse, improper disclosure, and identity theft. In 2004, more than 9.3 million Americans were victims of identity theft, resulting in $52 billion in fraud-related activities.

BENEFITS

- Encourages greater use of online services by the public
- Improves the balance between open government and private personal information
- Protects privacy of government consumers

SHARED COMMITMENTS/RESPONSIBILITIES

DIR

- Identify strategies and methods for protecting personal information in agency information systems
- Publish guidelines for including privacy protection of personal data in information systems
- Adopt administrative rules for disposal of data in surplus computer equipment
- Adopt administrative rules to protect unencrypted personal information transmitted over a network
- Review current legal environment and make recommendations for legislation, if deemed necessary

AGENCY

- Implement controls in compliance with state law to protect personal information in agency systems
- Limit collection of personal information when possible
- Implement procedures for disposition of surplus computer equipment and removal of data from same in compliance with state law
- Implement policies to protect personal information transmitted over the Internet or wireless networks
- Implement procedures for handling spyware in compliance with state law

SHARED RESULTS

In order to ensure that electronic information is not retrievable from surplus data processing equipment, the 79th Legislature added TGC § 2054.130 to the Information Resources Management Act. This statute requires agencies to permanently remove data from data processing equipment before disposing of it or transferring it outside of the agency. The new law makes DIR responsible for establishing rules for appropriate disposition methods. Users of online government services expect information about themselves to be confidential. Personally-identifying information, such as Social Security numbers, must be protected from inadvertent release via databases, Web site access, and information used in fulfilling public information requests. Privacy policy development must be consistent with the state's strategic plan for

security that aims to protect state assets from unauthorized access and with direction from the 80th Legislature.

The strategy to protect the privacy of personal information in state custody has accomplished the following key project milestones:

- ✓ Adoption of administrative rule on the disposal of equipment (1 TAC 202) – Apr-06
- ✓ Legislative recommendation in the BPR to establish requirements and guidelines for agencies to track and protect databases and environments that contain sensitive data – Nov-06

Upcoming key milestones include:

- Recommendation for adoption of proposed new rule (protect personal information) to DIR Board – pending legislative approval of above BPR recommendation – Q1-FY08

APPENDIX E

Acronyms

BPR	Biennial Performance Report
CAT	Contract Advisory Team
CISV	Catalog Information System Vendor
CPA	Comptroller of Public Accounts
CSEC	Commission on State Emergency Communications
CTO	State's Chief Technology Officer
DCS	Data Center Services
DHHS	(United States) Department of Health and Human Services
DIR	Texas Department of Information Resources
ELITE	Executive Leadership in Information Technology Excellence
ERP	Enterprise Resource Planning
Framework	Texas Project Delivery Framework
FTE	Full-time equivalent
GIS	Geographic Information System
HHSC	Health and Human Services Commission
HUB	Historically Underutilized Business
IP	Internet Protocol
IRM	Information Resources Manager
IRSP	Information Resources Strategic Plan
ISO	Information Security Officer
ITD	Information Technology Detail
IVR	Interactive Voice Response
K–12	Public education grades K–12
LBB	Legislative Budget Board
MPLS	Multiprotocol Label Switching
NASCIO	National Association of Chief Information Officers
NSOC	Network and Security Operations Center
Q#	Quarter of fiscal year
QAT	Quality Assurance Team
RFO	Request for Offer
R.S.	Regular Session
SAO	State Auditor's Office
SDLC	Software Development Life Cycle
SITAR	Statewide Information Technology Asset Reporting
SLA	Service Level Agreement
SONET	Synchronous Optical Network
TAC	Texas Administrative Code
TASSCC	Texas Association of State Systems for Computing and Communication
TBPC	Texas Building and Procurement Commission
TGC	Texas Government Code
TRAC	Technology Reporting, Alignment and Collaboration
TSLAC	Texas State Library and Archives Commission
TxMAS	Texas Multiple Award Schedule
TxSPIRS	Texas Statewide Planning Information Resources System
USAS	Uniform Statewide Accounting System
USPS	Uniform Statewide Payroll and Personnel System
UTIMCO	University of Texas Management Investment Company
VoIP	Voice over IP
WAN	Wide Area Network

Endnotes

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DIR Board of Directors

The 2006 Biennial Performance Report was unanimously approved by DIR's governing board on October 26, 2006.

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