

AGENDA
SENATE COMMITTEE
ON BUDGET AND FISCAL REVIEW
Senator Denise Moreno Ducheny, Chair

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Overview of the State's Information Technology Management Process

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TESTIFYING

- Legislative Analyst's Office
- J. Clark Kelso, State Chief Information Officer
- Department of Finance

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I. UNDERSTANDING THE INFORMATION TECHNOLOGY (IT) MANAGEMENT PROCESS

A. Recent History: From the Department of Information Technology (DOIT) to Department of Finance, Office of Technology Review, Oversight and Security (OTROS)

The Legislature enacted Chapter 508, Statutes of 1995 (SB 1, Alquist), for the planning, implementation, and oversight of the state's IT activities. This legislation established DOIT with specific responsibilities to apply IT in a cost-effective manner and address Legislative concerns regarding the management of major IT initiatives.

DOIT responsibilities fell into three major categories: planning and policy development, project review and oversight, and, to a lesser extent, procurement. (The latter category was partially overseen by the Department of General Services.)

Statutory authority for DOIT was allowed to sunset in 2002, in part due to poorly overseen database management contracts with the Oracle Corporation. At the time, the state was still undoing a no-bid award of approximately \$95 million for a software enterprise licensing agreement. Among other mistakes made with those contracts, the state purchased excess software licenses, agreed to an unnecessary six-year contract term, and failed to negotiate savings when software costs declined.

In the summer of 2002, funding was provided for the creation of the Office of Technology, Review, and Oversight (OTROS), under the direction of the Department of Finance (DOF). The DOF was made responsible for the budgeting and control of state information technology expenditures, specifically:

- ✓ Reviewing IT proposals and ensuring IT expenditures represent a prudent investment of resources while meeting the state's business needs;
- ✓ Recommending funding and/or expenditure authority for IT projects, commensurate with the substantiated needs, and any necessary fiscal controls to the Finance Program Budget Manager responsible for a department's budget;
- ✓ Assisting the DOF to ensure approved IT expenditures are in alignment with statewide IT policies and strategies;
- ✓ Implementing an effective system of graduated oversight for all IT projects;

- ✓ Establishing statewide standards for project management and project oversight;
- ✓ Assessing department and agency IT project management and oversight practices;
- ✓ Establishing IT security and risk management policy and oversight; and
- ✓ Establishing operational recovery policy and oversight.

B. Procurement Primer

Briefly, IT procurement has the following characteristics:

- Purchases are governed by many state laws.
- State law designates the Department of General Services (DGS) as the state's procurement officer.
- Statutory emphasis is on ensuring fair and open competition.
- Statutory differences exist in procuring: (1) goods versus services and (2) IT versus non-IT goods and services.
- For IT-specific procurements, the state can select IT goods and services based on "best value" instead of lowest cost.
- Despite improvement efforts, frustrations continue regarding the amount of time and cost to conduct major complex procurements, obtaining contracts that meet the state's needs, and non-performing vendors still being awarded state business.

C. State's Information Technology Governance Structure

Since the sunset of the Department of Information Technology in 2002, the state has established an IT governance structure comprised of six primary entities.

- ✓ State Chief Information Officer (CIO). Provides general guidance and performs some coordination activities with departmental Chief Information Officers.
- ✓ Department of Finance, Office of Technology Review, Oversight and Security (OTROS). Develops policies for review, approval, oversight, and security of state IT systems; rates projects on risk, evaluating factors such

as cost, activities, and staff experience; and oversees medium- to high-risk projects.

- ✓ Department of Technology Services. The Department of Technology Services (DTS) was created in 2005 by the reorganization and consolidation of the Stephen P. Teale Data Center (Teale), the Health and Human Services Data Center (HHSDC), and certain telecommunications functions of the Department of General Services. The DTS serves the common technology needs of state agencies and other public entities. The DTS maintains accountability to customers for providing secure services that are responsive to their needs and represent best value to the state. Funding for DTS is provided by contracts with other state departments.
- ✓ Department of General Services (DGS). Develops procurement policies and reviews and monitors state procurements.
- ✓ Departments. Manage IT projects and maintain departmental hardware and software (servers and desktop).

D. The State Information Technology Strategic Plan and Departmental Strategic Plans

The California State Information Technology Strategic Plan, as updated annually by the Information Technology Council (comprised mainly of departmental CIOs), guides the acquisition, management and use of technology within the executive branch over a five-year period (currently 2005-09). The first plan was presented in November 2004.

Some recent achievements that were first identified in the strategic plan include:

- ✓ Consolidation of the Teale and Health and Human Services Data Centers.
- ✓ Rollout of a new eServices strategy and refresh of the State's web pages.
- ✓ Statewide information technology procurements that have resulted in cost avoidance savings of several million dollars.

The primary goals of the most recent Strategic Plan (updated November 2006) are:

- ✓ Make government services more accessible.
- ✓ Implement common business applications and systems to improve efficiency and cost-effectiveness.
- ✓ Ensure state information assets are secured and privacy protected.
- ✓ Lower costs and improve the security, reliability and performance of the state's IT infrastructure.
- ✓ Strengthen California's technology workforce.
- ✓ Establish a technology governance structure.

Under the Administration's interpretation of Chapter 533, Statutes of 2006 (SB 834, Figueroa), the CIO intends to direct state agencies to annually prepare and/or update a three-year IT strategic plan, which must conform to the goals of the State's five-year IT strategic plan.

II. Lessons Learned: What Projects Work? What Projects Did Not?

- A. What lessons have we learned with previously attempted—but unsuccessful—projects?
- B. What problems have been encountered with projects proposed or underway?
- C. How do we manage IT projects better?

III. OPTIONS

A. Status Quo

The Department of Finance's Office of Technology, Review, and Oversight (OTROS) took over IT oversight activities from DOIT in 2002 and soon after instituted stronger controls over IT procurements, system management, and security.

OTROS reviews IT proposals, ensuring requests are a prudent investment of resources; assists budget units in evaluating IT matters, ensures proposals are consistent with statewide IT practices, establishes standards for project management and oversight; oversees IT security risk management and mitigation; and oversees plans for operational recovery during emergencies.

One of OTROS' earliest actions was to initiate a statewide assessment of 117 state information technology projects, which identified serious process challenges associated with developing proposals and adhering to statutes and state policies.

Based on those findings, OTROS curtailed the discretion provided departments under DOIT to procure IT systems independently and pursued a broader, statewide perspective, with some success. While there have been no more Oracle-type debacles, departments still struggle to implement modern systems in a timely manner and in accordance with state regulations.

B. Office of the Chief Information Officer

The proposed budget requests 49 positions and \$7.8 million (Department of Technology Services Revolving Fund) to establish a centralized IT management department and ensure that project specific activities are coordinated with other departments and reflect the state's policies and direction for information technology development.

This request is based on Chapter 533, Statutes of 2006 (SB 834, Figueroa), which established an Office of the Chief Information Officer (OCIO) and proscribed duties including: (1) advising the Governor on IT issues; (2) minimizing overlap and redundancy of state IT operations; (3) coordinating the activities of agency information officers; (4) advancing organizational maturity and capacity in IT management; and (5) establishing performance measures for IT systems and services.

The OCIO would incorporate the project oversight and review function of the Department of Finance's Office of Technology Review, Oversight, and Security (OTROS). (Information security components currently housed in the Department of Finance would shift to the State and Consumer Services Agency.) Twenty-six positions in OTROS would move to the new Office of the Chief Information Officer to continue the project oversight and review activities.

The office will be comprised of the following five units:

1. Governance and Strategic Planning. This unit will be tasked to primarily staff and organize the new office, implement changes in governance of IT projects, and oversee the 2006 IT Strategic Plan. This unit will be supported by nine staff.
2. Enterprise Initiatives. This three-person unit will develop a blueprint for technology initiatives in order to better coordinate departmental IT initiatives, develop an enterprise architecture to better inform policymakers' decisions regarding where to invest resources and realign processes, develop and maintain statewide standards for IT infrastructure, and improve the state's data management and warehousing capabilities.
3. Statewide Policies and Direction. This two-person unit will set policies on how to streamline services to citizens, manage the state's IT portfolio as a whole, and plan for workforce changes affecting and affected by IT investments.
4. Legislation and Legal Affairs. This two-person unit will respond to legislative inquiries, develop legislation and regulations, and research legal questions involving IT investments.
5. Project Review and Oversight. This unit will assume most of the current functions of the Department of Finance's Office of Technology Review, Oversight, and Security. (Security functions will be transferred to the State and Consumer Services Agency.) These 25 staff will enable the CIO to recommend IT projects for funding.

C. A Business-based Approach to IT Procurement and Oversight

With several dozen departments and agencies scattered across the state, each with its own particular IT needs, California's information technology systems have been largely procured and maintained on an independent, "stove-piped," basis. Consequently, IT capabilities vary widely across state entities and challenges with obsolete technology, and inefficient processes are commonplace.

An often suggested private sector solution to these challenges is the adoption of a business-based “best practice” called Enterprise Resource Planning (ERP). ERP involves aligning technology and focusing investments on projects that will have statewide service delivery and operations applications. For example, the Budget Information System (BIS) is intended to replace departments’ independently designed and tailored budgeting systems with a standardized system that would allow free exchange of data and information.

ERP addresses the two important IT operability challenges of compatibility (by putting all state users on the same system) and scalability (by adopting off the shelf technology that can be upgraded more easily than a custom-designed system).

ERP does have limitations. As explained in the FISCAl proposal, ERP systems are more expensive to implement, operate, and maintain than existing systems. That new cost constrains spending on other systems which the Legislature may view as a higher priority. Furthermore, ERP is limited to services with statewide application (i.e. tracking of inmates or a statewide voter database shouldn’t be eligible for ERP).

D. Enhanced Project Management

With several hundred million dollars invested annually in designing and building new information technology systems, the state has a substantial interest in ensuring projects are well managed. Notwithstanding the policies and regulations, the IT oversight process depends most heavily on knowledgeable project managers to administer the day-to-day activities associated with implementing a project.

Some options for improving project management include:

- Dedicated unit of IT project managers. The State of North Carolina has invested heavily in project management, establishing a dedicated unit of IT project managers who are then farmed out to specific projects as needed. Within their Office of Information Technology Services, these personnel provide state-level leadership in managing information technology projects and assist in formulating state-level information technology strategies, plans, policies, and procedures.
- Better retention of qualified staff. With nearly half of all IT managers at or near retirement age, the state will soon face even greater challenges in skillfully managing IT projects.

- Strengthen the skills and credibility of our IT managers and management. Individuals with an IT project management certification are expected to have mastered the distinct body of knowledge necessary for managing IT projects, including initiation, scheduling, quality, procurement and communications issues. Most of the IT vendors with whom the state deals with are required to have project management certification.

IV. PUBLIC COMMENT