

Organizing for Success

IT Governance for California State Government

GOVERNOR'S REORGANIZATION PLAN #1

FEBRUARY 2009

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I. Introduction

The application of information technology permeates all aspects of California state government. From the collection of income and sales taxes, to providing health and social service benefits, to licensing vehicles and professionals, the use of technology within state government is multifaceted, supporting a multitude of programmatic missions, and evolving in response to changing policy and programmatic goals. Technology is no longer bolted onto the side of government programs; now, it is an integrated part of program design. The very ability of state agencies to manage their resources and efficiently deliver services to Californians is inextricably linked to their ability to effectively use technology. On the strategic level, as policy and programmatic initiatives move to “cross-boundary” models – cutting across traditional agency, organizational and jurisdictional boundaries – state executives will need to leverage technology to partner more closely with individuals and groups within and outside of government and must be able to seamlessly collaborate across the enterprise.

Impeding this growing dependency is the fact that the state's technology programs are distributed across dozens of agencies, without a broad and cohesive organizing logic that informs the activities of information technology leaders as they build or acquire new systems or infrastructure. As a result, even the many positive advances in the state's use of technology over the last decade, has failed to take advantage of these advances on an enterprise-wide basis. Further, the skillful use of information technology is particularly important now that residents and businesses expect to conduct their business with state government on the Internet, and also expect transparency and accountability from their government.

Information Technology Governance

Trends in the public sector, especially in those states that have been recognized by the Pew Center on the States for information performance, provide context as to the form, organization and benefits of effective information technology governance. In terms of information performance, among the states (Michigan, Missouri, Utah, Virginia and Washington)¹ earning the Pew's Government Performance Project grade of “A” all have integrated policy and operational functions within information technology organizations that have an enterprise, or statewide, perspective. Beyond Pew's assessment, the Little Hoover Commission, the Center for Digital Government, Deloitte Consulting, Gartner, the Legislative Analyst's Office, and the RAND Corporation have observed that the state must transform the underlying way technology is governed and managed within state government if it is to be effectively leveraged as a strategic asset to improve public outcomes and maximize efficiency.

Californians rightly expect affordable, accessible and responsive services from their state government and only the strategic use of information technology can enable California state government to meet these expectations. Doing so requires a framework to leverage existing technology assets and a statewide approach to the planning, design and implementation of future information

technology systems and infrastructure. In the context of the state's fiscal challenges, information technology also provides policymakers with a way to continue to provide needed services to the public by enhancing the performance and productivity of state government.

Establishment of the Office of the State Chief Information Officer

Since the early 1980s, the state tried several models for governing the way it manages information technology investments and operations. Nearly all of these models were shown to be insufficient for the management and oversight of complex technology infrastructures and large IT projects. Accordingly, in 2006, the Legislature enacted and Governor Arnold Schwarzenegger signed SB 834 (Chapter 533, Statutes of 2006) to establish the Office of the State Chief Information Officer (OCIO).

SB 834 made the State CIO a member of the Governor's cabinet, with the position appointed by the Governor and subject to Senate confirmation. The bill also codified the responsibilities of the State CIO, making the State CIO the nominal leader for the Executive Branch's IT program. The Budget Act of 2007 and related legislation (SB 90, Chapter 183, Statutes of 2007) substantially expanded on SB 834 and provided positions and an appropriation to establish the OCIO. Government Code § 11545 et seq. provide the State CIO and the OCIO with responsibility and authority for statewide technology vision, strategic planning and coordination, technology policy and standards (enterprise architecture), data management policy and standards, and the review and approval of technology projects.

Defining Federated IT Governance

Federated IT governance establishes the relationship among the Agencies, departments and the state CIO. The federated governance model maintains the authority of agencies to manage program-specific IT processes and systems. IT functions that are common across the entire state are managed at the enterprise level for all agencies by the central IT organization. The federated governance model confirms that programmatic needs are the primary drivers for IT decisions and acknowledges the importance of IT as an enabler of agency success.

With the creation of the OCIO, the Governor and the Legislature have established the structure on which a strong information technology program can be built. Greater expectations and new challenges require a new, more coordinated approach to the governance and management of information technology. This Reorganization Plan provides that approach - a federated governance model for information technology in California.

II. The Current State of IT Governance in California

In its current state, IT governance responsibilities are dispersed across multiple entities and organizations.

Existing Organizations

Office of the State Chief Information Officer (OCIO) – The OCIO was formally established by Senate Bill 90 and began formal operation in January 2008. The State CIO's specific responsibilities include the following:

- Advising the Governor on the strategic management and direction of the state's information technology resources.
- Establishing and enforcing state information technology strategic plans, policies, standards and enterprise architecture.
- Minimizing overlap, redundancy and cost in state operations.
- Coordinating activities of agency information officers and the Director of Technology Services.
- Improving organizational maturity and capacity in the effective management of information technology.
- Establishing performance management practices and ensuring state information technology services are efficient and effective.
- Approving, suspending, terminating and reinstating information technology projects.

In the Budget Act of 2008, the Legislature provided the OCIO with 32 positions and a budget of approximately \$6.7 million. The Governor's 2009-10 January Budget proposal includes 29 new positions and an increase of \$8.4 million (\$5.7 million General Fund) to develop a strategic plan and overall structural design for education data systems and to provide sufficient resources to carry out the existing duties of the Chief Information Officer related to Enterprise Architecture, Geospatial Information Systems (GIS), human capital management, program and project management and information technology policy.

Table 1, see below, describes key actions the OCIO has taken to date consistent with SB 90.

Table 1: Key Actions by the Office of the State Chief Information Officer

Statutory Role of the CIO	Key Actions to Date
Advise the Governor on the strategic management and direction of the state's IT resources.	<ul style="list-style-type: none"> ✓ School Finder/Education Data Project ✓ Broadband and digital literacy ✓ GIS Task Force
Establish and enforce state IT strategic plans, policies, standards, and enterprise architecture.	<ul style="list-style-type: none"> ✓ The IT Capital Planning process implemented by OCIO ensures all IT investments are consistent with state policy priorities, IT policy and standards, while reducing duplication and overlap.
Minimize overlap, redundancy and cost in state operations.	<ul style="list-style-type: none"> ✓ Moving forward with server consolidation plan that will significantly reduce costs when fully implemented. ✓ Leading effort to consolidate state e-mail systems to enhance security, reduce costs, and improve reliability.
Coordinate activities of AIO's and the Director of DTS.	<ul style="list-style-type: none"> ✓ With DTS Director, implemented spend control program at DTS achieving savings on new hardware and significant cost avoidance related to capital expenditures. ✓ Significantly enhanced the state's web presence through coordination with AIOs, recognized by Brookings institute and the Center for Digital Government.
Improve organizational maturity and capacity in the effective management of IT.	<ul style="list-style-type: none"> ✓ Establishing a Project/Risk management methodology including a new training program as a requirement for state IT Project Managers. ✓ Developing statewide workforce development and planning strategy focused on training, recruiting, and retaining IT staff
Establishing performance management and ensuring IT services are efficient and effective.	<ul style="list-style-type: none"> ✓ In establishing the Project Management Methodology, developed key metrics to assess performance of IT projects.

Other information technology organizations/functions with a statewide operations or policy function include:

The Department of Technology Services (DTS) – The DTS was established on July 9, 2005, via a Governor's Reorganization Plan, and exists under the jurisdiction of the State and Consumer Services Agency. The DTS provides information technology (IT) services, on a "fee for service" basis, to state, county, federal and local government entities throughout California. Through the use of a scalable, reliable and secure statewide network, combined with expertise in voice and data technologies, DTS delivers comprehensive computing, networking, electronic messaging and training. The DTS is made up of seven divisions, including: Data Center Operations, Security Management, Engineering, Customer Delivery, Policy and Planning, Statewide Telecommunications and

Network, and Administration. [Describe Technology Services Board] In the Budget Act of 2008, the Legislature provided DTS with authority for 801.8 positions and \$278 million in expenditure authority from the Technology Services Revolving Fund.

The Technology Services Board (TSB) – The TSB, which was established on July 9, 2005, via a Governor’s Reorganization Plan, provides governance and guidance to the DTS, and ensures appropriate oversight and customer orientation. The TSB was designed to ensure that the DTS is governed by its major customers from a business perspective. Chaired by the State CIO, the TSB membership consists of top executives from all Cabinet agencies and the State Controller’s Office.

Office of Information Security and Privacy Protection (OISPP) – The OISPP was established effective January 1, 2008, and is part of the State and Consumer Services Agency. The OISPP is responsible for leading state agencies in securing and protecting the State’s information assets by identifying critical technology assets and addressing vulnerabilities; deterring identify theft and security incidents; sharing information and technology lessons promptly; enhancing government response and recovery; and developing consumer education programs. In the Budget Act of 2008, the Legislature provided OISPP with authority for 14 positions and a budget of \$1.9 million.

Department of General Services, Telecommunications Division (DGS-TD) – The DGS-TD was first established in 1947 and has existed in its current incarnation since the business telecommunications functions were transferred to the Department of Technology Services on July 9, 2005. The DGS-TD, as part of the DGS, exists under the jurisdiction of the State and Consumer Services Agency. The DGS-TD is made up of two distinct offices, the Office of Public Safety Communications Services (OPSCS) and the State of California 9-1-1 Emergency Communications Office. The OPSCS provides engineering and technical support services for public safety related communications systems, including: design, installation, and maintenance services. The 9-1-1 Emergency Communications Office provides oversight of the 9-1-1 network and approximately 500 police, fire, and paramedic dispatch centers, also known as Public Safety Answering Points (PSAPs) and assists PSAPs in the administration and funding of 9-1-1 services. In the Budget Act of 2008, the Legislature provided DGS-TD with authority for 368 positions and \$223 million (\$152 million for local assistance, \$71 million for state operations) in expenditure authority.

IT Procurement Policy – In enacting Public Contract Code Sections (PCC) §12100-12113, the Legislature drew a distinction between the role of IT procurement policy and IT procurement procedure by granting the Department of Information Technology (DOIT) authority for IT procurement policy and the Department of General Services with authority over IT procurement procedure. When the Department sunset on July 1, 2002, this authority was transferred to the Department of Finance (DOF) and Management Memo 02-20 clarified the delineation of responsibilities in the area of IT procurement. Several references

in PCC §12100-12113 still reference that the DOIT and the DGS are jointly responsible to create and coordinate policies and procedures for the acquisition of information technology goods and services. Clearly defining the roles and responsibilities for IT procurement policy and procedure is necessary to implement common technology standards statewide.

Information Technology in California State Government

In May 2008, the OCIO conducted a statewide survey in an effort to understand and baseline key data to gain a clearer picture about the state of information technology in California state government.ⁱⁱ The survey requested information about several areas, including: general information about agencies IT organizations and how services are delivered; infrastructure (including mainframe, servers, and storage); e-mail services; and technical environment. The OCIO aggregated the data from the survey and validated it against other reliable sources of information.

Key Findings from the Survey

- Top Line Information:
 - Operating expenditures of more than \$3 billion annually.
 - 130 individuals serving as CIOs or in an equivalent function within state agencies.
 - More than 10,000 authorized positions in IT classifications (annual payroll/overhead in excess of \$1.5 billion).

- IT Projects
 - More than 120 large IT projects under development with estimated budgets exceeding \$6.8 billion over 11 years.
 - More than 500 small to medium IT projects under development.

- IT Human Capital
 - More than 50% of the state's IT workforce will be eligible to retire within the next five years.
 - Existing IT leadership capabilities require further development.
 - Deferred spending on workforce development has resulted in skill gaps and shortages in key areas (e.g. project management and business analytics).

- IT Infrastructure - Data Centers, Servers and Storage
 - The state has approximately 409,000 sq. ft of floor space in 405 locations dedicated to data centers and server rooms.
 - Approximately 33 percent of data center floor space lacks sufficient disaster recovery and backup capabilities.
 - The state owns and operates more than 9,494 servers. More than a third of these servers are at, or near, end of life (3+ years old).
 - Agencies are operating 259 storage systems (159 Storage Attached Network (SAN) systems and 100 Network Attached Storage (NAS) systems).

- IT Infrastructure – Desktop
 - More than 200,000 desktops/laptops in use by Executive Branch agencies, with a refresh cycle ranging between three to five years.
 - The average desktop in use requires 4 to 16 times more energy than a laptop computer operating with advanced power management.
 - More than 100 different email systems.
 - 180,000 active email boxes.
 - 75 terabytes of storage (75,000 gigabytes).
 - 15 million emails per day.

- IT Security
 - Explosion in e-mail spam – ~95% of the e-mail the state receives each day is spam.
 - The state’s network vulnerability is projected to increase by more than 800 percent by 2018 if we maintain the current operating model.

From the information gathered from the survey, the OCIO reached the following conclusions:

- The State maintains a significant number of IT facilities, equipment, and staff across individual organizations. This provides an opportunity for consolidation, particularly with email services.
- The State could improve governance, stake holder buy in, and communication of IT investments by standardizing reporting relationships as well as roles and responsibilities within state agencies for setting IT priorities.
- The State could improve the management of IT resources by increasing the centralization of services.
- State data centers are a prime target for efforts to improve energy efficiency.
- Web and e-mail security threats are increasingly sophisticated.

III. The Case for Reorganization

Modern technology governance is no longer just about technology; it is about leadership in effectively and efficiently managing an organization's use of technology to meet its business needs. It includes the structures and processes for setting direction, establishing standards and principles, and prioritizing IT investments that improve business value. IT governance is the mechanism for deciding who makes what decisions about technology use and it creates an accountability framework that drives the desired use of technology. Effective information technology governance also includes the processes by which key decisions are made about IT investments. Similarly, IT project success depends on effective, ongoing communication across all levels of an organization.

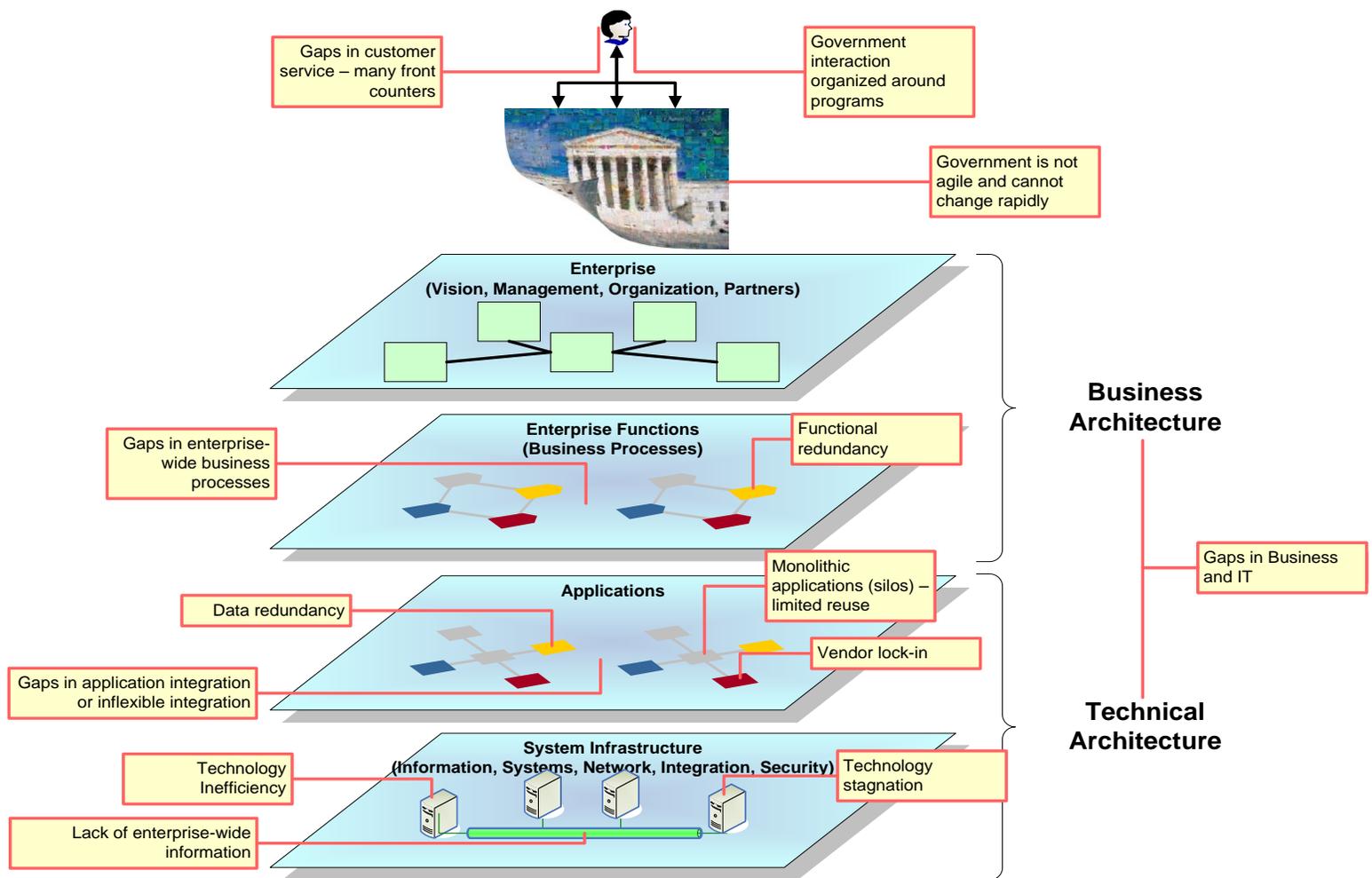
The central question, which this plan addresses, is *why* reorganize and *why* reorganize now? California must reorganize its information technology governance structure to:

- Establish a common sense governance model that aligns with best practices.
- Increase coordination and operational efficiency, reduce costs and improve energy efficiency through statewide IT shared services, common IT standards, and consolidated IT infrastructure.
- Meet growing public expectations for services accessible anytime and anywhere over the Internet.

The Challenges and Opportunities of the Status Quo

While significant progress has been made toward enhancing information technology governance and management in California state government over the last several years, significant challenges and opportunities remain. These challenges and opportunities occur at every level of the state's business and technical architecture (see Figure 1 below) and result in sub-optimized efforts that dissipate resources and produce inconsistent results. They expose the state to higher overall operational costs from program overlaps, redundancies, inefficient use of resources and increased vulnerabilities to security threats and architecture breakdowns.

Figure 1: The Challenges and Opportunities of Status Quo IT Governance



As the Little Hoover Commission recently observed, the dispersion of information technology assets, including human and economic capital and technology infrastructure, across agencies is the greatest challenge to accountable and effective information technology governance in California state government.ⁱⁱⁱ This condition reinforces organizational silos, adversely impacting technology operations as well as programmatic efficiency and fiscal performance.

Computing Infrastructure Challenges

To support the automation of business processes, agencies rely on a wide assortment of systems and storage devices that include: file and print servers, application and database servers; Internet and Intranet servers; and Network Attached Storage and Storage Attached Network Systems. The management of these systems is intended to ensure that data is physically stored, retrieved, archived and deleted as needed to support business functions. Outside of the state's data center environments, the management of systems and storage technologies is distributed across all agencies and results in diverse technical environments. The proliferation of distributed systems and storage devices has

brought with it the necessity to manage increasingly complex environments. The total cost of ownership is inevitably higher in a complex environment. Research by Gartner shows that 40 percent of all application unavailability experienced by end users is caused by human error; these errors are more likely to occur in complex technical environments. Additional challenges due to highly differentiated technical environments include:

- Difficulty in coordination resulting in technology inefficiency as well as functional and data redundancy.
- Challenges to integrating IT systems, which impedes information sharing across the enterprise.
- Duplication of effort, which limits the state's ability to leverage its scale to reduce the cost of operations.
- Dilution of the state's ability to reliably operate its technology infrastructure, exposing the state to increasingly sophisticated security threats.
- Underutilization of servers and data storage equipment resulting in increased technology operating costs, the inefficient use of energy and ultimately resources diverts from accomplishing programmatic missions.

Computing Infrastructure Opportunities

Centralized management and the careful consolidation of systems and storage devices offer the state numerous benefits that include: reduced complexity and support costs, lower error rates, better support for new business applications, improved security, improved business continuity protection, and improved scalability and performance.

- Case Example – The state currently owns and operates more than 9,494 servers. If growth in the number of servers continues at the current pace, it is estimated that the state will own and operate more than 18,000 servers by 2014. Informed by industry best practices around server consolidation and virtualization, the OCIO estimates that the state could reduce the total number of servers it owns and operates by 50 percent without impacting system performance or service levels. This common sense approach to technology management would result in significant cost savings, cost avoidance and reduced energy usage over time.

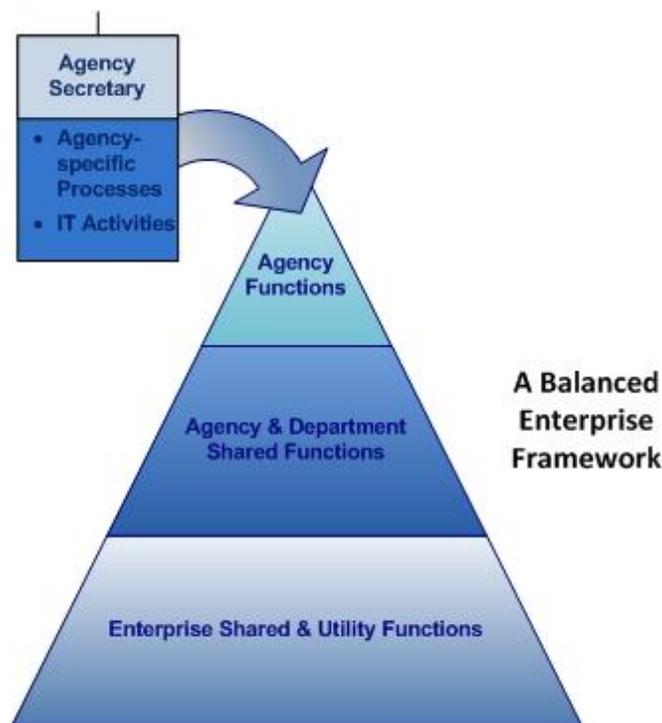
IV. Governance Aligned

The building blocks for a strong IT program are in place. By creating the Office of the State CIO at the Cabinet level, appointing an accomplished CIO and supporting the effective use of information technology throughout his Administration, the Governor in partnership with the legislature have established the necessary conditions for success. Success, however, requires more than building blocks. Providing the appropriate governance structure is essential. The governance process must facilitate good decision-making and ensure that services are delivered cost-effectively. In arguing for an invigorated IT governance structure, the Little Hoover Commission said:

“The state CIO must be given the authority to set and execute technology priorities as laid out in the state’s (2008) IT Strategic Plan. The state CIO must be given the resources to accomplish the task.”^{iv}

Also, the governance model should make possible transformation of service delivery across state government. Figure 2, below, depicts how California would transform the provision of IT services in support of agency programmatic missions.

Figure 2 – IT Services in Support of Agency Missions



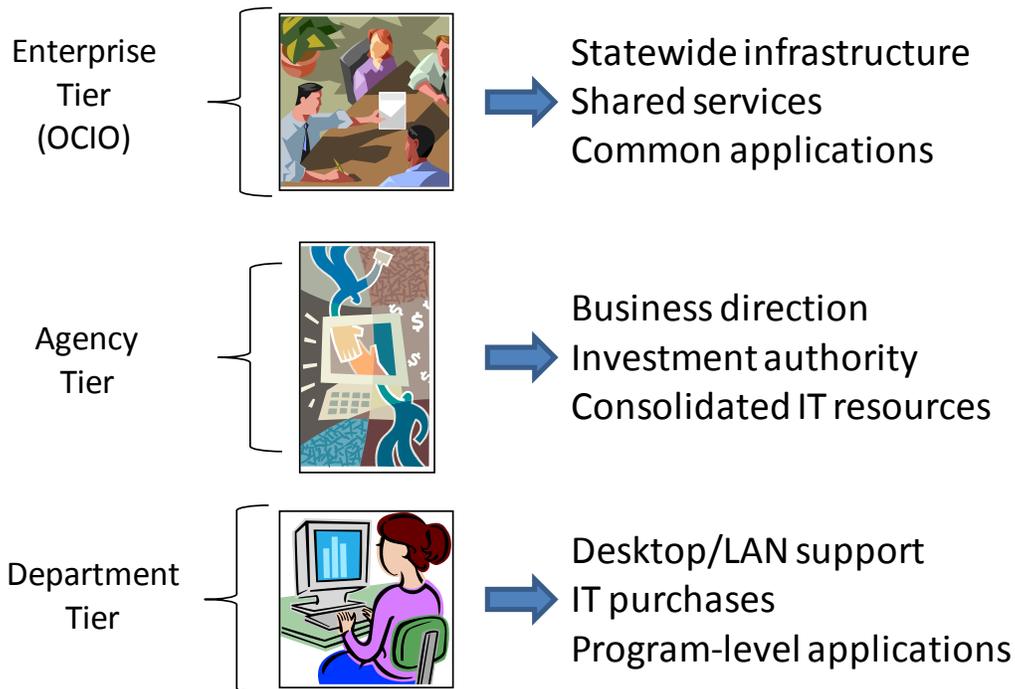
The governance model should align with the organization and decision-making structure of the Executive Branch, with Agencies establishing the policies and business priorities in program areas and Departments, within Agencies, execute policy direction and deliver government programs. Statewide control agencies, including the Department of Finance and the Department of General Services, manage and oversee the budget, support services and procurement. The Governor appoints Agency Secretaries, which (along with other appointees) comprise his Cabinet.

In addition to aligning with the decision authorities of the California Executive Branch, an effective IT governance process should also:

- Maintain decision authority at the appropriate tier;
- Provide statewide IT infrastructures and services;
- Consolidate IT resources to increase capacity and reduce costs;
- Improve management of IT projects;
- Streamline approval, purchase and oversight processes; and
- Foster collaboration and data sharing.

The federated governance model articulated in this Reorganization Plan (see Figure 3 below) satisfies the goals listed above while maintaining accountability at the responsible tier.

Figure 3 – Accountabilities in the Federated Governance Model



In the federated governance model, depicted in Figure 3 above, responsibilities will be divided as follows:

- The Enterprise Tier will provide robust IT infrastructure for the entire government, offer shared technology services across government, provide oversight to reduce risk in IT project management, and enhance security and stakeholder privacy.
- The Agency Tier will provide program policy and direction, prioritize Agency IT investments, and consolidate IT resources reduce operational costs.
- The Department Tier will provide local desktop/LAN support, manage business specific applications and purchase IT resources necessary for department activities.

Ultimately, this Reorganization Plan proposes to transform the existing IT governance framework from one that is focused on the needs of individual agencies to one that provides affordable, consistent and reliable technology services to all state agencies, while supporting the diverse needs of individual agencies. The plan introduces the concept of California's state government as a single enterprise in its use of information technology.

This governance framework consolidates enterprise information technology functions under the Office of the State Chief Information Officer to improve coordination and realize significant efficiencies in procurement and technology implementation.

This approach flows from business strategies and drivers and uses enterprise architecture to ensure the wise investment of limited resources. The federated governance framework enables operational improvements by defining common or shared technology (enterprise architecture) standards across diverse program areas, providing interoperability and supporting the diverse programmatic missions of state agencies. This approach also establishes a common platform and standards for operations and growth, improves the speed of implementations and provides an optimal return on investment.

V. The New Organization

The federated governance framework ensures the integrated and strategic use of technology resources statewide by bringing together the state's key IT policy and operating functions and organizations, defining the role of the State CIO and the OCIO as well as providing the organizational framework for Agency and Department technology leadership.

When it takes effect, this Reorganization Plan would establish an expanded Office of the State Chief Information Officer made up of the following existing organizations:

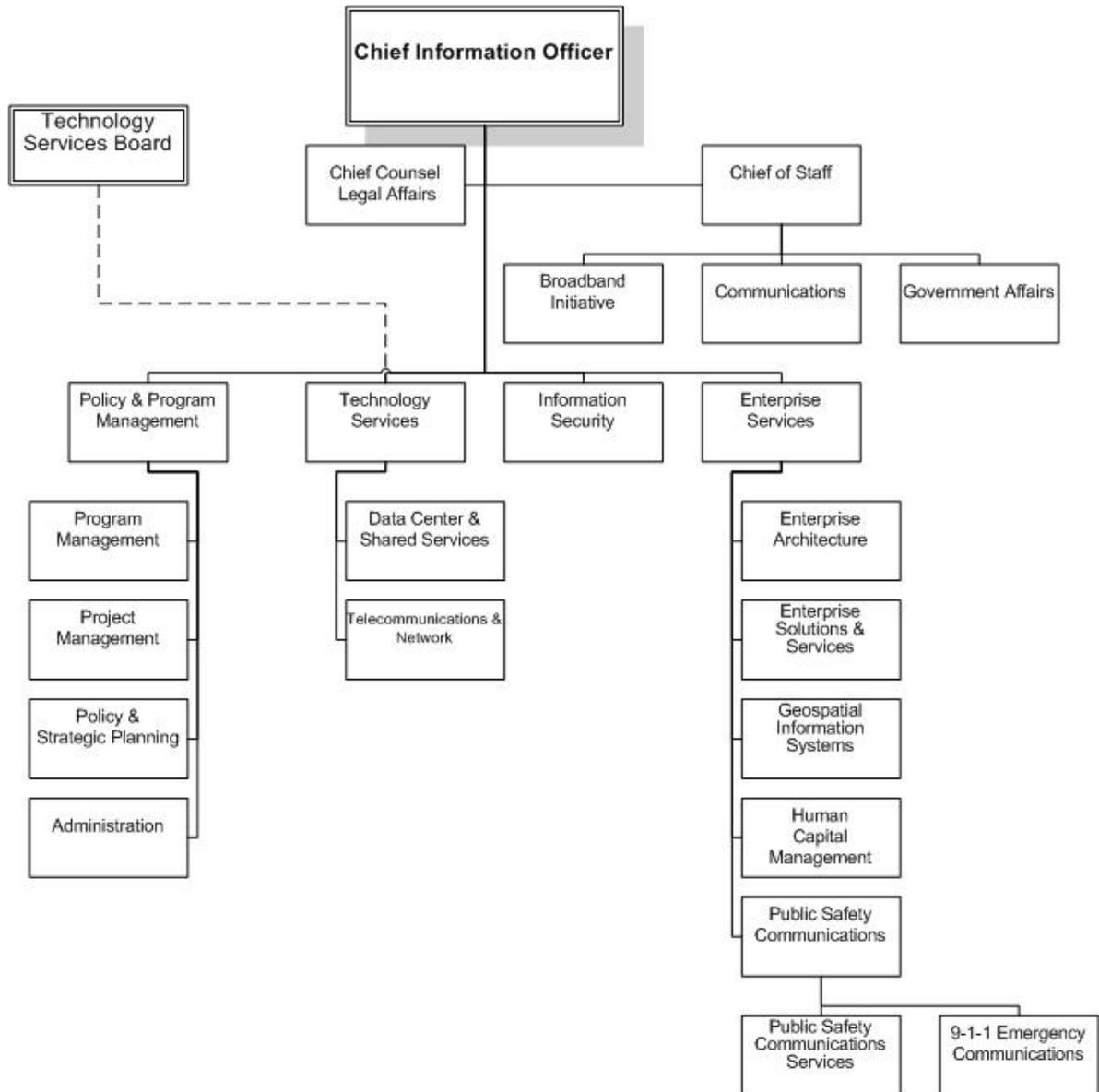
- The Office of the Chief Information Officer;
- The Office of Information Security and Privacy Protection (information security functions);
- The Department of Technology Services (including the Technology Services Board); and
- The Department of General Services – Telecommunications Division.

In addition to its existing functions, the expanded OCIO would gain responsibility for key functions, including:

- Enterprise Information Technology Management;
- Enterprise Information Security;
- Data Center and Shared Services;
- Unified Communications Services (voice/video/data networks and radio systems);
- IT Human Capital Management;
- Information Technology Procurement Policy; and
- Broadband and Advanced Communications Services Policy.

The organization that would result from this Reorganization Plan (see Figure 4 below) aligns with best practices in the public sector and directly supports the state's policy goals and programmatic initiatives.

Figure 4 – Proposed Office of the State Chief Information Officer



Executive Office of the CIO

The CIO will continue to report directly to the Governor and serve as the primary point of accountability for the management of the state's integrated information technology and security program. The Executive Office will consolidate functions that cut across program areas to create a unified, enterprise-wide approach to IT and information security policy and operations. The CIO will continue to fulfill all current Agency Secretary roles. In addition, the CIO will advise and assist in the implementation of major policy and program matters and be the principal communication link between the Governor and the constituent units of the Office. The CIO remains a cabinet-level position, appointed by the Governor and confirmed by the Senate.

Crosscutting and coordinating responsibilities that will be consolidated in the Executive Office, include the following:

- California Broadband Initiative Office – The Office will provide leadership on policy initiatives related to broadband and advanced communications services, including coordinating the implementation of the California Broadband Task Force Report (except those recommendations related to right-of-way).
- Office of Government Affairs – The Office will serve as the OCIO's liaison to the Legislature, analyze federal and state legislation related to information technology and security issues, coordinate the development of legislation and monitor legislatively mandated reports.
- Office of Communications – The Office will act as the OCIO's liaison to employees, the news media, community groups and other external organizations.
- Office of Legal Affairs – The Office will coordinate the OCIO's legal activities and provide the CIO with legal counsel.

Transferred Functions:

The CIO will fulfill all current responsibilities of the State CIO as well as the functions of the director of the DTS, the director of OISPP for information security and the Director of General Services' responsibilities related to telecommunications. The State CIO will now provide IT direction to Agency and Department Chief Information Officers. In addition, the State CIO will assume authority for IT procurement policy and performing enterprise technology functions.

Divisional Structure and Responsibilities

The OCIO will be comprised of the Technology Services Board and four offices – the Policy and Program Management Office, the Office of Technology Services, the Office of Information Security and the Enterprise Services Office.

Policy and Program Management Office – The Office, which will be led by the Chief Deputy CIO, will be responsible for the information technology performance management and ensuring that the state strategically manages its use of information technology resources to achieve the highest possible programmatic value. The office will be comprised of three IT policy/management focused groups (Program Management; Project Management; and Policy and Strategic Planning) as well as the Administration Group.

- Program Management: Will be responsible for providing primary support for program and project planning, investment analysis, portfolio management and support for agency projects as necessary. In addition, will participate in the development of state IT policies, standards and procedures for project development and management and provide statewide orientation and training on these subjects. The PMO will also ensure standardization in project management processes and project performance metrics for effective project management and uniform project performance assessment. Additionally, the PMO will coordinate and implement project remediation actions.
- Project Management: Will provide the execution leadership for large IT projects, including responsibility for the technology and change management components of IT projects, such as communications about objectives, roles and responsibilities, status and direction.
- Policy and Strategic Planning: Will be responsible for coordinating the development of the Statewide IT Strategic Plan, developing statewide policies and standards for the use and procurement of information technology, managing internal projects and initiatives, and coordinating other planning efforts.
- Administration: Will provide essential services for the administration of the OCIO and its programs, including facilities operations, financial management, human resources, and procurement and contracting.

Office of Technology Services – The OTS, which will be led by the Director of Technology Services^v, will be comprised of two key functional groups focused on technology operations and infrastructure – Data Center & Shared Services and Telecommunications and Network Services.

- Data Center Services: The DCS group will be responsible for core data center operations and services and will be made up of the Operations and Engineering Divisions.
 - Operations: Will provide information technology infrastructure platforms and network connectivity to meet customers' information technology needs 24 hours per day, seven days a week.
 - Engineering: Will install and maintain software and hardware for customers to ensure system reliability, availability and serviceability.
- Telecommunications and Network: Will provide statewide telecommunications services, including strategic and tactical policies and planning for the state to a wide variety of state and local government customers.

Technology Services Board – The Board, which will be chaired by the State CIO, will be responsible for approving the OTS’ budget and rates.

Office of Information Security – The OIS, which will be led by the Director of Information Security,^{vi} will be responsible for ensuring the confidentiality, integrity, and availability of state systems and applications, and promoting and protecting the privacy of Californians. The OIS will implement enterprise information security and privacy protection policies and practices to safeguard information to ensure the confidentiality, integrity and availability.

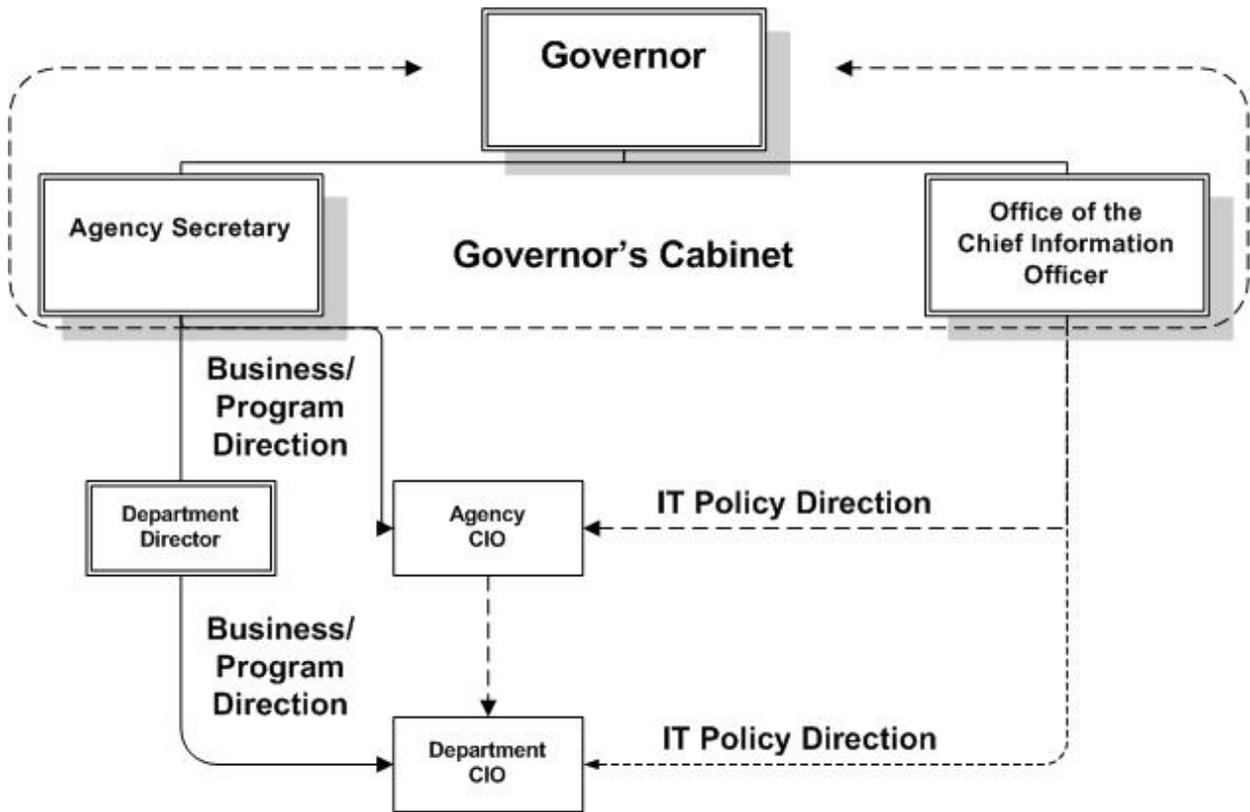
Enterprise Services Office – The ESO, which will be led by the Chief Deputy CIO for Enterprise Services, will be responsible for developing the state’s enterprise architecture as well as robust, reliable and affordable enterprise services.

- **Enterprise Architecture:** Will define, maintain and guide the implementation of the state’s enterprise architecture - the statewide roadmap to achieve the state’s mission and goals through improving the performance of its core business processes within an efficient information technology environment.
- **Enterprise Solutions and Services:** Will manage the development and implementation of policy driven technology solutions and services.
- **Geospatial Information Systems:** Will build and manage the California Geospatial Data Infrastructure as a shared service to enable all state agencies to share the cost of storing, accessing, utilizing and distributing GIS data.
- **Human Capital Management:** Will be responsible for leading statewide efforts to recruit and retain skilled IT professionals, developing a statewide IT succession/workforce plan, and establishing a comprehensive development, training and performance management program for state IT employees.
- **Public Safety Communications**
 - **Public Safety Communications Services:** Will provide engineering and technical support services for public safety related communications systems.
 - **9-1-1 Emergency Communications:** Will provide oversight of the 9-1-1 network and approximately 500 police, fire, and paramedic dispatch centers and assist in the administration and funding of 9-1-1 services.

Transferred Functions

This new organizational structure would result in the transfer of all of the functions from DTS, the functions of the Telecommunications Division of the Department of General Services, the information security functions of the OISPP as well as responsibility for information technology procurement policy.^{vii}

Figure 5 – Federated Information Technology Governance Framework



Other Roles and Responsibilities in the Federated Governance Framework

When this Reorganization Plan goes into effect, the State CIO will be responsible for providing technology direction to Agency Chief Information Officers (AIOs) and Department Chief Information Officers (CIOs), see Figure 5 above. Specific activities include:

1. Integrating statewide technology initiatives;
2. Ensuring compliance with information technology policies and standards; and
3. Promoting the alignment and effective management of IT resources.

Agency Chief Information Officers (AIOs)/Non-Affiliated Chief Information Officers – AIOs will be responsible for overseeing the management of IT assets, projects, data systems, infrastructure, services and telecommunications, through the oversight and management of departmental CIOs. Each Agency CIO will be responsible for developing an Agency Enterprise Architecture to rationalize, standardize and consolidate IT infrastructure, data, and procedures for all departments within their Agency.

Department Chief Information Officers (CIOs) – CIOs will be directly responsible for all IT activities within the department and report to the State CIO through the Agency CIO for purposes of departmental IT performance management. All departmental employees in IT classifications will report to the Department CIO. CIOs will be responsible for all IT systems, assets, projects, purchases, and contracts and will ensure departmental conformity with the Agency Enterprise Architecture. Department CIOs will also be responsible for:

1. Portfolio management of the department's technology initiatives;
2. Operational oversight of IT functions, personnel and operations, including:
 - Web and application development;
 - Application and database management;
 - Security administration;
 - Telecommunications;
 - Project planning, consulting and management; and
 - Help desk and customer service management.

Chief Information Officers for Departments that are not affiliated with an Agency will have the responsibilities of an AIO, except those responsibilities related to oversight of Departmental CIOs, and the responsibilities of Agency-affiliated Departmental CIOs. Consistent with the federated governance model, the OCIO will work with agencies and departments to implement this operating model in a way that aligns with their business operations.

Other Organizational Changes

The transfer of the information security functions of the Office of Information Security and Privacy Protection (OISPP) to the OCIO that will occur when this Reorganization Plan goes into effect will result in the creation of the Office of Privacy Protection (OPP) within the State and Consumer Services Agency. The OPP will continue to carry out the consumer focused privacy protection functions of the OISPP.

VI. Benefits of the Reorganization Plan

The federated governance framework articulated in this Reorganization Plan enables the strategic use of both human and IT resources to achieve a higher level of efficiency and effectiveness in the delivery of services, improve accountability and transparency and increase return on taxpayer investment. While this Reorganization Plan is the beginning of the transformation process, it:

Establishes a Single-Point of Accountability for Information Technology

- Integrating resources will result in greater transparency and accountability of operations, a more comprehensive and integrated investment planning process, and significantly improve the output and outcome reporting and analytic information base. This in turn will improve the state's ability to manage IT programs.

Consolidates Key Technology Assets and Policy Functions

- The federated operating model envisioned by this Reorganization Plan will place a premium on developing 'enterprise solutions' that are deployed across multiple agencies while consolidating other technology resources.
- Centralized management and the careful consolidation of systems and storage devices offer the state numerous benefits that include: reduced complexity and support costs, lower error rates, better support for new business applications, improved security, improved business continuity protection, and improved scalability and performance.
- In addition to improved technology and program alignment, increased efficiency and effectiveness, and supporting a statewide and cross-boundary approach, the organizational changes proposed in this Reorganization Plan enable a greater emphasis on data, information and knowledge management, and provide an improved platform for the transformation of government services and operations.

Supports Integrated Business and IT Planning

- Building on the IT Capital Planning Process, this Plan supports a robust integrated business-IT planning process that provides a coherent, repeatable process ensuring the alignment of IT strategy with public priorities and agency business plans. This process will result in a more efficient allocation of resources, with the potential for making more resources available for other policy priorities, as overall IT costs are reduced.

Promotes Data Sharing and Management

- This Reorganization Plan will enable a greater emphasis on data, information and knowledge management, including information sharing among and within agencies as well as information sharing with different levels of government.

Enhances Information Security and Disaster Recovery

- The statewide approach to information security and disaster recovery enabled by this Reorganization Plan will provide a consistent, integrated approach across agencies thereby making individual agencies less vulnerable to security breaches and operational downtime.

VII. General Provisions

This Reorganization Plan is effective on May 7, 2009. On the effective date, the plan shall become operative.

Transfer of Employees

Pursuant to Government Code Sections 12080.3 and 19370, all employees serving in the State Civil Service, other than temporary employees, who are engaged in the performance of functions transferred to the Office of the State Chief Information Officer or engaged in the administration of a law, the administration of which is transferred to the Office of the State Chief Information Officer by this Reorganization Plan, are transferred to the Office of the State Chief Information Officer. The status, positions, and rights of such persons shall not be affected by their transfer and shall continue to be retained by them pursuant to the State Civil Service Act, except as to positions the duties of which are vested in a position exempt from civil service. The personnel records of all transferred employees shall be transferred to the Office of the State Chief Information Officer.

Transfer of Property

The property of any agency or department, related to functions transferred as part of this reorganization, is transferred to the Office of the State Chief Information Officer. If any doubt arises as to where such property is transferred, the Department of General Services shall determine where the property is transferred.

Transfer of Funds

All unexpended balances of appropriations and other funds available for use in connection with any function or the administration of any law transferred by this Reorganization Plan shall be transferred to the Office of the State Chief Information Officer for use for the purpose for which the appropriation was originally made or the funds were originally available. If there is any doubt as to where such balances and funds are transferred, the Department of Finance shall determine where such balances and funds are transferred.

Endnotes

ⁱ See “50 State Information Summary,” The Pew Center on the States, Government Performance Project, Information Performance Grades. Online at: www.pewcenteronthestates.org/uploadedFiles/Information%20Performance.pdf

ⁱⁱ The survey can be viewed online at: cio.ca.gov/Publications/pubs/OCIO%20StatewideITSurveyReport.pdf

ⁱⁱⁱ See “A New Legacy System: Using Technology to Drive Performance,” Little Hoover Commission, November 2008.

^{iv} See “A New Legacy System: Using Technology to Drive Performance,” Little Hoover Commission, November 2008.

^v The Director of Technology Services will be appointed by and serve at the pleasure of the Governor, and subject to Senate Confirmation.

^{vi} The Director of Information Security will be appointed by, and serve at the pleasure of, the Governor.

^{vii} Public Contract Code Sections 12101 and 12103 reference the Department of Information Technology as responsible for IT procurement policy.