



# **Project Controls, Efficiencies, and Strategic Progress FY 2006 – FY 2009**

Submitted in Accordance with Conn. Gen. Stat. §4d – 14

State of Connecticut Department of Information Technology  
September 2008

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# Introduction

The Department of Information Technology (DOIT) continues its multi-year efforts to maximize IT resources, achieve new efficiencies and promote strategic technology standards and practices.

Conn. Gen. Stat. § 4d-14 requires DOIT to issue a report annually specifying “potential opportunities for increasing the efficiency or reducing the costs of the state's information and telecommunication systems and (2) including a plan to realize such opportunities.”

This report, issued in accordance with this statutory requirement, highlights new project controls being deployed to increase cost effectiveness and on-time delivery of major IT projects.

Also included in the report is a summary of progress made over the first two years of DOIT's Strategic Plan for Information Technology, and operating plan objectives for FY 2009, the plan's third and final year.

## About DOIT

As the State's lead IT agency, DOIT sets State IT policies and standards that promote strategic technology standards and practices to benefit the State as a whole.

DOIT also provides IT services to 100+ agencies, including e-mail, network, internet access, and application hosting.

Use of these services enables agencies to focus on their unique missions and requirements, and the specialized computer applications required to support them.

# New Project Controls Launched

*To help agencies maximize existing IT resources and contain costs, DOIT has launched a new system development methodology (SDM) and project review process across executive branch agencies.*

*DOIT's new Program Management Office (PMO), created in FY 2008 to standardize project management practices, is deploying both the SDM and project review process.*

## **Project Reviews**

Project reviews are a best practice to track projects, deliverables, and progress. A new project review process was launched in June 2008 for IT projects with costs greater than \$1 million, six months or more in duration, and/or having an enterprise impact.

To date, 124 projects have been identified as meeting this criteria, 22 of which have costs greater than \$1 million.

The PMO has held four project review sessions during which 18 projects from 24 agencies were reviewed. More than 70 agency business and technical representatives participated in each project review session.

## **System Development Methodology (SDM)**

The DOIT SDM was completed in the summer of 2008 and is currently being deployed statewide.

It is a best practice to ensure systems meet State and agency requirements, are compliant with current and planned state IT standards, are easy to maintain, and cost effective to enhance.

The SDM promotes better direction, delivery, and control of project timelines and costs. The DOIT SDM has seven phases and 50 tools and templates to assist project teams over the course of the project.



***In June 2008, Governor  
M. Jodi Rell issued  
Executive Order #19  
requiring agencies to  
apply the DOIT SDM to  
all IT projects.***

# System Development Methodology (SDM)

## SDM Features

### Integrated Ownership

To ensure ownership, accountability, and collaboration between disciplines, the SDM requires each project to have an Executive Sponsor or Project Steering Committee, and a project team with both business and technology representatives. The structure ensures the appropriate people are "at the table" and engaged in all phases of development. Engagement and collaboration are facilitated through structured roles, functions and deliverables throughout the project lifecycle.

### Controlled Progression

SDM requirements help pace projects appropriately. Each SDM phase serves as the foundation for the next. Premature progression to the next phase can result in cost overruns, project delays or failure. The SDM includes "phase gates" at the end of each phase, during which project status is assessed and a documented decision made to authorize or prevent a project from proceeding to the next phase.

### Support and Tools

The SDM is online and provides 50 tools, worksheets and templates to assist the project team over the course of the project.

## SDM Phases: An Overview

### **Phase 1: Business Issues** *(9 Tools/Templates)*

A project is formally launched to develop an IT solution/system to meet a defined business need. The project team is established. A project charter, defining and scoping the project, and a high level project plan, are developed.

### **Phase 2: Business Requirements** *(8 Tools/Templates)*

Business leads define the functions the new IT system must perform in order for the system to meet business requirements.

### **Phase 3: Design** *(12 Tools/Templates)*

Design specifications are created based on business requirements developed in phase 2.

### **Phase 4: Construction** *(12 Tools/Templates)*

The actual system, including hardware, software, and communications/connectivity components, is built, based on design specifications produced in phase 3.

### **Phase 5: Testing** *(5 Tools/Templates)*

Business and technical teams conduct tests to verify the system satisfies the defined business and technical requirements.

### **Phase 6: Implementation** *(2 Tools/Templates)*

The system is installed, made operational, and introduced to business users.

### **Phase 7: Post-Implementation** *(2 Tools/Templates Provided)*

The system is transitioned to the teams responsible for its ongoing management. A project summary, including lessons learned, is shared across the organization.

# System Development Methodology (SDM)

## Early Indicators of SDM Impact

In the summer of 2008, using the SDM, the Department of Labor (DOL) was able to process a federal extension of unemployment benefits 36 percent faster than a similar effort in 2002.

The DOIT IT manager at DOL reported on the impact the SDM had on the project, which involved modification to more than 200 computer programs.

The DOL project demonstrated that while the SDM requires better definition "up front," it will save time and ensure timely delivery of a major project.

The SDM can not only help accelerate projects – it can also facilitate decisions to cancel or restructure them.

At DOIT, the SDM, in tandem with the Project Review process, has resulted in project restructuring, and even suspension or cancellation of projects to enable resources to be redirected.

### *DOIT Department of Labor IT Manager Tracey Jackson July 2008 Report on SDM Impact*

*"On June 30th, the President signed into law an Act which created the Emergency Unemployment Compensation (EUC08) program. The Act creates a federally funded benefit extension which provides up to 13 weeks of benefits to exhaustees. CTDOL estimated that approximately 120,000 people may be eligible for this program.*

*The DOL initiated the planning phase for this program during the first week of July and set implementation goals for early to mid August. With guidance from the DOIT PMO, the Agency implemented a rapid version of the SDM.*

*Rolling out this program successfully involves significant acts of collaboration between IT and the Business. The Business Units had to quickly establish and implement new processes while going through the identification and gathering of requirements. The IT unit identified nearly 200 programs on multiple platforms (MF and Client Server) that required modifications. We were also challenged with the continuous transformation of changing business requirements into system specs while managing the design, construction and test phase gates of the SDM.*

*Although adhering to a structured SDM is a pretty arduous task, it has proved to be of significant value in the management and execution of deliverables. The Agency is on target and is scheduled to "go-live" with the program on 8/13 on the Web and will offer services through its Telebenefits (IVR) System on 8/20."*

# Strategic Progress FY 2006 – FY 2009

Each year, DOIT develops and issues an agency operating plan containing goals and objectives for the fiscal year. The plan is aligned with the five core strategies of DOIT's Strategic Plan for Information Technology (IT) for FY 2006-2009.

In accordance with the requirements of Conn. Gen. Stat. § 4d-14, this report includes a summary of DOIT's operating plan objectives for FY 2009, the third and final year of DOIT's current Strategic Plan.

It also summarizes achievements made during the strategic plan's first two years.

## **Strategy 1**

*Build a high performance organization by investing in IT personnel and addressing organizational issues.*

## **Strategy 2**

*Strengthen and improve comprehensive disaster backup and recovery strategies and security programs.*

## **Strategy 3**

*Enhance and enforce a technology blueprint and standards.*

## **Strategy 4**

*Use technology to improve program effectiveness and resolve business issues, making services more accessible to residents and business.*

## **Strategy 5**

*Implement technology best practices.*

# **STRATEGY 1** *Build a high performance organization by investing in IT personnel and addressing organizational issues*

## **Progress/Highlights: FY 2006-2008**

- ✓ IT job classifications modernized (with DAS/OPM).
- ✓ Succession planning strategies developed.
- ✓ Leadership, technical training, and customer service programs launched.
- ✓ Online training tools provided, 1,044 online courses taken in FY 2007 and FY 2008.

## **Objectives: FY 2009**

- ✓ Develop job-specific and leadership training tools.
- ✓ Launch mentoring programs for IT staff.
- ✓ Enhance succession planning.
- ✓ Develop/deploy meeting productivity tools.
- ✓ Create certification program to promote proficiency in the new system development methodology.

***19 percent of DOIT employees are eligible to retire immediately. 32 percent are eligible to retire within the next three years, and 42 percent within the next five.***

With an increasing number of employees eligible for retirement, DOIT continues to support actions that will bolster recruitment efforts and advancement opportunities, including review and adjustment of state hiring processes, salary levels and position classification.

FY 2009 objectives are designed to continue positioning DOIT to meet growing service needs in an increasingly complex IT environment within existing resources and current state hiring conditions.

Objectives include workforce planning, programs and tools to continue to create an environment with advancement opportunity and growth potential.

## **STRATEGY 2** *Strengthen and improve comprehensive disaster backup and recovery strategies and security programs*

### **Progress/Highlights: FY 2006-2008**

#### ***Disaster Backup and Recovery***

- ✓ Held seven disaster backup and recovery exercises spanning 1,260 hours.
- ✓ Requirements study completed for second data center.

#### ***New IT Security Tools and Upgrades***

- ✓ Mobile device security crackdown resulted in record setting statewide deployment of encryption technology. Six thousand laptops were encrypted, and encryption of an additional 25,000 devices is underway.
- ✓ Deployed new firewalls, intrusion prevention/detection tools. Four million intrusions/threats were blocked.
- ✓ Deployed new tools to monitor/analyze State network traffic across 100 agencies, 1000+ connections.
- ✓ Upgraded anti-virus systems and blocked 603,442 attacks across 30 agencies, 10,000+ devices.
- ✓ Upgraded anti-spam devices, blocked 1.16 billion spam e-mails across 43+ agencies and 25,000 email accounts.



- ✓ Deployed new internet filtering system. More than 15.3 million unsafe or non-business related site visits blocked across 70 agencies.

- ✓ Opened advanced IT Forensics Lab for computer-related investigations.

#### ***Statewide Security/Emergency Support***

- ✓ Led federal program participation to secure access to communication lines during times of emergency or crisis. Secured/activated 543 access cards for agencies and 9-1-1 primary access points.
- ✓ Developed award-winning system providing emergency response officials web access to geographic information during statewide emergency activations.
- ✓ Continued multi-year oversight of state HIPAA compliance program for ten state agencies for security of electronic health records.
- ✓ Co-led Statewide Pandemic Influenza Continuity of Operations (COOP) Planning with DAS.

## **STRATEGY 2 – Cont.** *Strengthen and improve comprehensive disaster backup and recovery strategies and security programs*

*Between FY 2006 – FY 2008, DOIT focused on strengthening central IT security controls, tools and practices.*

*In FY 2009, DOIT's focus will expand further with emphasis on facilitating improved IT security practices across agencies and evaluating options to extend the reach of security tools.*

### **Objectives: FY 2009**

#### **Expanding, Deepening IT Security**

- ✓ Enhance and extend IT security to improve overall state security posture.

This objective establishes a focus on IT security policy enhancements, continued collaboration with agency IT personnel, and development of additional agency disaster recovery planning tools.

- ✓ Improve and increase IT security in depth.

This objective calls for a special focus to be placed on investigation of end point security options for user devices connecting to State network.

#### **Second Data Center Planning**

- ✓ Continue planning and design for the second data center

DOIT's existing data center stores more than 2.4 petabytes (2,400,000,000,000,000 bytes) of data, is the host site for more than 100 statewide and agency applications, and connects to 800+ points statewide.

A second data center, operating in tandem with the existing data center, can help reduce risk in the event of an adverse event impacting the existing data center. It can also accommodate applications agencies currently choose to host on their own, outside of the DOIT data center's controlled settings.

## **STRATEGY 3** *Enhance, enforce a technology blueprint and standards*

### **Progress/Highlights: FY 2006-2008**

- ✓ Defined architectural program structure.
- ✓ Established Technical Review Group to review new applications and designs.
- ✓ Established framework to facilitate agency migration off obsolete platforms and products.
- ✓ Continued adoption and deployment of enterprise systems and standards.

### **Objectives: FY 2009**

- ✓ Assess specific IT configurations and tools.
- ✓ Create technical domain teams to support architectural standards development.
- ✓ Identify and prioritize new technology adoption.
- ✓ Continue focus on migrations off obsolete products.
- ✓ Continue deployment of enterprise standards and tools, including email archiving system and encryption.

### **New/Updated State IT Policies**

System Development Methodology: FY 2008

Mobile Device Security Policy: FY 2008

Updated Acceptable Use Policy FY 2006

### **Enterprise Systems/Services, Expansions FY 06–08**

CT.gov Portal: 68 Agencies, 171,500 Content Files.. ▲79 % (# Content Files)

Network Connectivity: 100 agencies/facilities

Internet Access: 100 agencies/facilities.. ▲115% (*Internet Usage*)

Internet Filtering: 70 agencies.. ▲79% (# Customer Agencies)

Distributed Systems Hosted: 79 Agencies, 98 Systems.. ▲46% (# Systems Hosted)

Data Stored/Distributed Systems: 79 Agencies, 2.4 Pb.. ▲1285% (*data stored*)

Enterprise Email: 42 agencies, 22,250 email accounts.. ▲29% (*email accounts*)

Blackberry© Services: 836 Users

Anti-Virus Services: 31 agencies, 9,864 devices.. ▲663% (# Blocks)

Patch Management: 18 agencies, 3,028 devices.. ▲267% (# Devices)

Mobile Device Encryption: 65 Agencies, 6,000+ Laptops

Remote Access (VPN): 4,252 Users.. ▲61% (# Users)

Terminal Services: 10 Agencies, 9,000+ employees

### **New/Emerging Systems**

Online Payment System: 9 Agencies

Enterprise Training System: 11 Agencies

Email Archiving System: All Agencies

Geospatial Information Systems Standards: Agencies with GIS Data/Users

## **STRATEGY 4** *Use technology to improve program effectiveness and resolve business issues, making services more accessible to residents and business*

### **Progress/Highlights: FY 2006-2008**

- ✓ Sponsored statewide focus group forums to advance e-government strategy and shared solutions.
- ✓ Added 68 agencies/organizations and 102 live sites to ct.gov internet portal system.
- ✓ Expanded State internet access capacity by 660% for current and future use of internet and online services.
- ✓ Developed state's first centralized credit card service for applications requiring online credit card payment.
- ✓ Developed online registration renewal system for the Department of Motor Vehicles.
- ✓ Launched online learning system for agencies to create and offer online training.
- ✓ Developed online bird mortality reporting system for the Department of Environmental Protection.

- ✓ Developed award-winning system providing web access to geographic information during statewide emergency activations.
- ✓ Expanded remote access technology use by 61 percent, providing 4,252 state employees remote access to State network, computers and systems.

### **Objectives: FY 2009**

- ✓ Continue e-government strategy development and investigate cost-effective application delivery options.
- ✓ Continue procurement process for an upgraded content management/portal product for state web sites.
- ✓ Continue leadership role in statewide e-health initiative.
- ✓ Develop policy focus on focus on web content ownership.

## ***STRATEGY 5 Implement technology best practices***

### **Progress/Highlights: FY 2006-2008**

- ✓ IT Service Management program (ITSM) launched to achieve operational excellence, 300+ standard procedures issued to date.
- ✓ Program Management Office (PMO) established to improve controls and processes.
- ✓ System development methodology (SDM) deployed to improve system development controls and delivery.
- ✓ Project review process launched to improved major project tracking, reporting.
- ✓ Technical Review Group established to expedite, resolve technical design issues.
- ✓ New product and service rates established, approved and deployed to improve cost recovery structure.
- ✓ Twenty-two employees trained in facilitation methods.
- ✓ Launched energy conservation program.

### **Objectives: FY 2009**

- ✓ Continue to advance ITSM and SDM programs.
- ✓ Deploy email archiving system.
- ✓ Launch pilot facilitation service.
- ✓ Continue to identify and promote environmentally friendly practices.
- ✓ Refine work intake process to prioritize project demand and resource allocation.
- ✓ Improve contract management functions.
- ✓ Develop standardized metrics across DOIT divisions.
- ✓ Develop and track project budgets at product level.