



2013-2014 Reports

1. 2014 Information Technology Strategic Plan Update (GC 11545 (c))
2. 2013 Annual IT Performance Metrics Report (GC 11545 (d)3)
3. 2013-2014 Annual Department of Finance Cost Savings and Avoidance Report (GC 11545 (d)4)

Executive Summary

This packet provides three individual documents required of the California Department of Technology by statute. These documents are:

- 2014 Annual Information Technology Strategic Plan Update
- 2013 Annual Information Technology Performance Metrics Report
- 2013-2014 Annual Department of Finance Cost Savings and Avoidance Report

Some of the metrics collected in the Annual Information Technology Performance Metrics Report in previous years have been discontinued, as either our target goals were achieved, or the value of the data was limited.

The Annual Information Technology Strategic Plan update is attached herein, but can also be found on our website at www.cio.ca.gov.

2013 Annual IT Performance Report (Government Code 11545 (d)3)

In 2009, the Office of the State Chief Information Officer (OCIO) developed a performance framework of Information Technology metrics to measure progress statewide. This report provides the annual update to the Legislature and provides context for the collected and reported metrics, as indicated below.

Infrastructure Rationalization: Infrastructure Rationalization speaks to the efforts to consolidate, share, and standardize statewide IT infrastructure (AB 2408, Chapter 404, 2010). Due to an increased emphasis on server virtualization, the number of physical servers statewide has declined over the past 5 years. However, this decline is somewhat offset by an increase in the number of servers, both physical and virtual, needed to accommodate and support new and expanding IT systems throughout the state. Therefore, we have discontinued collecting this metric and will be exploring alternate metrics in 2014 which reflect current technology efforts and improvements. Statewide data center capacity has met the 50% target reduction rate, and is included to further comply with the five year data requirement. The number of Wide Area Networks reflects the anticipated reductions that occur due to consolidation efforts. The number of email boxes in E-Hub reflects the number of email boxes available to adopt the statewide email security solution.

Service: Service level metric for measuring Public satisfaction with online services, as presented in previous reports, has been eliminated as the data no longer captures current technology efforts and is not considered useful. Due to this, we will be exploring alternate metrics in 2014 which reflect current technology efforts and improvements. The Service level objective metric has been absorbed into the Reliability metrics. In future reports this will be shown only in the Reliability metric section as it is a function of System availability and Network availability.

Project Management: Project Management data shows variations over time in percentages of projects delivered on time and within budget. For calendar year 2013, there is a significant improvement in percentage of projects completed within budget, and a modest decrease in the percentage of projects delivered on time. Due to the fluctuations in sample size from year to year, predictive value of this data is limited. To address the evolution of the Department of Technology's role related to project oversight, we will be exploring alternate metrics in 2014 which reflect current statewide efforts and improvements, and seek to capture the most relevant data possible. As noted in the report, the data used for this metric can vary widely as it is based on a very small subset of projects that finish in a given calendar year. One or two projects can cause significant variations in the percentages reported.

Additionally, in 2013 the State Chief Information Officer terminated one project, and suspended another. As neither of these projects was considered to be completed, they are not reflected in the metrics shown on subsequent pages. The Department of Technology has also created a Division of Consulting and Planning to assist projects experiencing significant challenges in an effort to restore project equilibrium, and ensure their continued value to the state.

The California IT community has undertaken considerable efforts to ensure project success. The Department of Technology has responsibility for oversight of the state's technology projects, although it does not manage the actual projects. The Department of Technology provides review and approval during project initiation, and

monitors projects once they have begun to identify potential risks and issues before there is a significant impact to the schedule or budget. The department coaches, mentors, and guides correction at such times as warranted.

The Department of Technology has implemented reforms intended to reduce the risk of project failure, including:

- A revision of the approval process for IT projects. The revised process focuses on those key elements that are necessary for a project to be successful. The revised process places greater emphasis on the business problem which an agency is seeking to address through investment in a technology solution. Additionally, greater emphasis is placed on ensuring that departments have the capacity and executive sponsorship to successfully complete a project. This end to end review of the project approval lifecycle will streamline the approval process while also ensuring projects are properly planned and resourced. This will help ensure projects are implemented more timely and within budget.
- Department of Technology staff are embedded within large and mid-size high-risk projects to provide direct oversight, input, and feedback.
- Budget trailer bill language implementing the Governor's Reorganization Plan (2) of 2012 transitioned large Information Technology project procurement authority from the Department of General Services to the Department of Technology as of July 1, 2013. Having large information technology project procurements in the same department as project oversight allows seamless incorporation and leveraging of the lessons learned across California's project portfolio. Having responsibility for both of these functions will allow the Department of Technology to mitigate project risks and also streamline the IT project procurement process.
- Increased and targeted training for IT project sponsors and project teams.
- Increased communications with project directors and vendors on large projects.
- Cataloguing and sharing of lessons learned from across the state's IT project portfolio.

While we see some immediate results from these initiatives (better trained project staff, improved processes, etc.), a majority of projects being implemented or completed now were set in motion many years ago, long before these initiatives were initiated. The Department of Technology will monitor the impact of these efforts as projects are developed through the improved processes.

Reliability: The Reliability metric indicates the percentage of state agencies with current IT disaster recovery plans. Each Agency or state entity is required to submit a full plan when changes are made, or certify that no changes were made to necessitate such a revision. System and Network availability are also included in this section.

Sustainability: As required by Government Code 111545, the Sustainability metric reports on the departments' energy usage and carbon dioxide emissions.

Information Security: Information Security metrics have varied greatly over the years. The variance in the number of data breaches reported since 2011 is due largely to state agencies' increased awareness of their responsibility for reporting these incidents to the Office of Information Security. The increase in the number of data breaches is also attributed to staff turnover, and insufficient information security awareness training programs within departments.

In 2013, the Office of Information Security has undertaken the following initiatives to enhance the security of California's technology resources:

- 1) The Department of Technology, Office of Information Security, in partnership with the Office of Emergency Services, established the California Cyber Security Task Force. The Task Force has established subcommittees focused on specific objectives in the following vital areas of opportunity to strengthen and enhance California's cyber security posture: Legislation and Funding; Risk Mitigation; Cyber Emergency Preparedness; Cybersecurity Workforce Development; Information Sharing; High-tech and Digital Forensics; and Economic Development.
- 2) [Technology Letter 13-04](#) completely restructured the security and privacy policy for state government ([State Administrative Manual Section 5300](#)) as part of a year-long strategic policy and program improvement initiative to ensure a more comprehensive understanding of state security and privacy requirements, and state agency compliance.
- 3) The Office of Information Security conducted informational forums on the new policy, training state employees on the restructured policy, standards, and procedures.
- 4) Technology Letters [13-01](#) and [13-02](#) promulgated policies on Smart Phone Usage and the new project approval lifecycle.
- 5) Coordinated with the Prison Industry Authority's security policy in support of the Computers to Homes initiative to ensure adherence to software licensing requirements, and that appropriate security measures are taken to remove all confidential, personal, or sensitive state data prior to transferring equipment to private entities.
- 6) The annual National Cyber Security Awareness event was expanded to provide security and privacy educational content to personnel from law enforcement, emergency management, education, and critical infrastructure sectors. The event reached more than 600 people, and 96% of post event survey respondents indicated their "attendance at this event provided value and will help them be more effective in their jobs."
- 7) The Office of Information Security, in partnership with the Office of Emergency Services, put on an Educational Seminar for Senior Government Officials. The seminar informed officials about the current cyber threat and facilitated essential discussions around consequence management during cyber security events. Participants left with the State security incident reporting roadmap and an outline of the "Top Five No or Low Cost Things You Can Do Today" to improve security.
- 8) The Office of Information Security facilitated and hosted general and hands-on technical training by the National Institute of Standards and Technology (NIST) to assist state agencies with implementing state security and privacy policy requirements.
- 9) The Response Information Management System (RIMS), an automated Cyber Incident Reporting system, is a collaborative effort between the Department of Technology, the California Highway Patrol, and the Office of Emergency Services and was a 2013 Government Technology Award Recipient in the category of "Best IT Collaboration Among Organizations."

California Department of Technology 2013 Annual IT Performance Report

Metrics shown in Calendar Year Data

Infrastructure Rationalization

| Metric | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|---------|---------|---------|--|---------------------------------|
| # of servers (physical) | 10,000 | 8,129 | 7,266 | Data not available ¹ | Data not available ¹ |
| Statewide data center capacity (sq. ft.) | 364,000 | 262,500 | 181,324 | 50% reduction achieved | 50% reduction maintained |
| # of Wide Area Networks | 70+ | 50 | 45 | 25 | 3 |
| # of email boxes in E-Hub | 0 | 163,630 | 166,949 | 166,980 (99.5% complete) ² | 166,980 |

¹This data is no longer collected as this was not an effective metric.

²Percentage of mailboxes migrated to eHub reflected in the 2012-2013 report rather than number of email boxes in eHub.

Service

| Metric | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|------|------|------------------|------------------|------------------|
| Public satisfaction with online services | 80% | 90% | N/A ³ | N/A ³ | N/A ³ |
| Service level objectives | 75% | 88% | 100% | N/A ⁴ | N/A ⁴ |

³Public satisfaction survey, from 2007-2010 CA.Gov template, was eliminated as data no longer captures current technology efforts and is therefore not considered useful.

⁴Service level objective data in past years was a factor of Network and System Availability. This data is presented under "Reliability" below, and is thus no longer reported separately.

Project Management

| Metric | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|------|------|------------------|------|--------|
| % of projects delivered on time and within budget ⁵ | 58% | 70% | 29% ⁶ | 40% | 37.5% |
| % of projects completed within budget ⁵ | 75% | 75% | 43% ⁶ | 80% | 93.75% |
| % of projects delivered on time ⁵ | 68% | 75% | 56% ⁶ | 40% | 37.5% |

⁵Data is based on projects completed in a given year with schedule and cost projections compared to last approved baselines. In 2013, data was available for 16 completed projects. This small sample size limits its predictive value.

⁶Percentages shown for 2011 previously erroneously reported in incorrect rows.

Reliability

| Metric | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|--------|--------|--------|--------|--------|
| % of state agencies with current IT disaster recovery plans (per year) ⁷ | 85% | 89% | 73% | 54% | 64% |
| System availability | 99.0% | 99.90% | 99.99% | 99.90% | 99.90% |
| Network availability | 92.70% | 99.91% | 99.91% | 99.95% | 99.95% |

⁷Percentage that submitted a full plan or certified no changes were made in the past year requiring a new or updated plan.

| Sustainability | | | | | |
|---|-------------|-------------|-------------|------------------------|--------------------------|
| Metric | 2009 | 2010 | 2011 | 2012 | 2013 |
| Energy used (MWh/year) | 170,000 | 140,426 | 107,028 | 33% reduction achieved | 33% reduction maintained |
| Carbon dioxide emissions (Metric Tons) | 85,000 | 70,213 | 41,994 | | |
| Security | | | | | |
| Metric | 2009 | 2010 | 2011 | 2012 | 2013 |
| # of electronic data breaches (per calendar year)⁸ | 90 | 268 | 81 | 96 | 120 |
| # of breaches resulting in the loss of personally identifying information (PII)⁹ | 3 | 0 | 2 | 10 | 10 |
| # of website compromises (per calendar year)¹⁰ | 70 | 11 | 7 | 9 | 5 |
| <p>⁸The number of data breaches during the calendar year that involved unencrypted data in an electronic format (e.g., unencrypted laptop, thumb drive, unauthorized access to database through hacking or network intrusion, etc.).</p> <p>⁹The number of breaches during the calendar year that involved unencrypted electronic devices and storage media lost or stolen containing PII.</p> <p>¹⁰Includes any successful exploit of a state Agency or entity website vulnerability (e.g., defacement, SQL injection, etc.).</p> | | | | | |

Annual Cost Savings and Avoidance Report from

California Department of Technology to the Department of Finance

Below is the report on 2013-14 cost savings and avoidances. This includes those planned for the remainder of the fiscal year and those already achieved to date through improvements to the way the State acquires, develops, implements, manages and operates State technology assets, infrastructure and systems.

2013-14 Cost Savings/Avoidances

| | |
|---|---------------------|
| FY 2013-14 Office of Technology Services Rate Savings | \$13,772,419 |
| Renegotiation of California Department of Technology contracts – Cost Avoidance | \$1,146,519 |
| Data Center Energy Efficiency Improvements-Cost Avoidance | \$180,000 |
| Total | \$15,098,938 |

Office of Technology Services (OTech) Rate Savings

The rate reductions for the following areas were approved in April 2013, and will achieve \$13.8 million reduction for FY 13/14. Rate savings are redirected to fund increases in utilization, such as more online applications or increased data storage needs. The FY 13/14 rate adjustments were effective January 1, 2013, and included in the 2012-2013 Annual Cost Savings and Avoidance Report. The FY 13/14 savings will be achieved in the following service categories:

- Mainframe CPU hourly rate reduced by 1.5%
 - Mainframe CPU is the largest service area of the data center and supports the mainframe processing of the largest and most complex customer applications. The Office of Technology Services (OTech) charges an hourly CPU rate for usage.

- Mainframe Disk Storage rates reduced by 36%
 - Mainframe Disk Storage is required to house and/or store customer data and datasets. OTech charges various rates for storage utilization depending on the type of data being stored.

- Mainframe Tape Storage rates reduced by 39.5%

- Mainframe Tape Storage is a less costly alternative to storing customer data and datasets. Customers are charged for the type of tape media used as well as how often the tape is retrieved.
- California Statewide Government Network (CSGNet) Retirement Fee rates reduced by 25%
 - The CSGNet retirement fee supports the CSGNet infrastructure. As this infrastructure is decommissioned, the retirement fee will be decreased, until CSGNet is fully retired.
- Secure File Transfer rates reduced by 23%
 - The Secure File Transfer service provides a complete, secure, fully-regulatory compliant, enterprise integration and consolidation solution for moving files and managing transfers from any Internet-connected client, private IP network or OTech-hosted server to any other server or end user.

OTech will be submitting another rate package for Mid-Year FY 2013/14 that will include additional rate adjustments for our major service categories. In addition, new rates for CalCloud services will also be proposed for consideration.

Renegotiation of California Department of Technology Contracts

Cost avoidances have been and will be achieved in FY 2013/14 through the renegotiation and renewal of contracts:

- Vendor discounting for maintenance renewals
- Discounting as a result of multi-year contracting
- Discounting as a result of bulk purchasing or bundling of software licensing agreements

Data Center Energy Efficiency Improvements

The Office of Technology Services continues to aggressively pursue implementation of energy efficient measures at its Gold Camp Data Center. The 2013/14 fiscal year initiatives include the replacement of all 4 Uninterruptable Power Supply systems (UPS) with more energy efficient models. This project will reduce energy consumption by 1,707,000 kilowatt hours per year. Additionally the department has fully implemented a Vigilant real-time thermal management system, which automatically controls the 36 computer room air handlers to provide efficient on-demand cooling to computing equipment in our data center. This project reduces energy consumption by 406,000 kilowatt hours per year. Combined, these two projects save the department nearly \$180,000 per year in utility bills and reduce Co2 levels by 848 metric tons.