

STATE OF HAWAII

CHIEF INFORMATION OFFICER
AND
OFFICE OF INFORMATION MANAGEMENT AND TECHNOLOGY

REPORT ON

STATUS OF THE BUSINESS AND INFORMATION TECHNOLOGY /
INFORMATION RESOURCE MANAGEMENT TRANSFORMATION STRATEGIC PLAN
(IMPLEMENTATION PHASE)

DECEMBER 2014

SUBMITTED TO
THE TWENTY-EIGHTH STATE LEGISLATURE

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CHIEF INFORMATION OFFICER AND OFFICE OF INFORMATION MANAGEMENT
AND TECHNOLOGY REPORT ON STATUS OF THE BUSINESS AND INFORMATION
TECHNOLOGY / INFORMATION RESOURCE MANAGEMENT TRANSFORMATION
STRATEGIC PLAN

BACKGROUND

Pursuant to Act 84, Session Laws of Hawai‘i (SLH) 2011, the State of Hawai‘i Chief Information Officer (CIO) is required to submit a report to the Hawai‘i State Legislature prior to the convening of the regular session of 2015.

In October 2012, the state unveiled its multi-year plan to create an environment in Hawai‘i for innovative industries to thrive and simultaneously apply technology to all sectors, transforming and modernizing this previously under-invested environment. This roadmap, which also reflected initiatives already in progress since the appointment of Hawai‘i’s first full-time Chief Information Officer (CIO), is described in the “Business and Information Technology (IT) / Information Resource Management (IRM) Transformation Strategic Plan.” (The plan earned the 2013 Federal 100 Award from Federal Computer Week Magazine; Hawai‘i was the only state government in the nation to receive such an award that year.)

Now in year four of the 12-year plan, the Office of Information Management and Technology (OIMT), under the leadership of the state CIO, is embarking on the implementation phase following years of planning and foundational work to upgrade infrastructure and policies necessary to ensure capacity, security, reliability and governance as initiatives move forward. As such, the people of Hawai‘i can expect accelerated activity in the coming years with improvements to public services, enhanced efficiency for state employees, and benefits to our state’s bottom line.

OPPORTUNITIES FOR EXCELLENCE

Overcoming the realities of institutional and budgetary limitations, OIMT together with the state Department of Accounting and General Services (DAGS) Information and Communication Services Division (ICSD) have worked in partnership with other state departments and attached agencies to achieve progress toward making Hawai‘i one of the top digital states in the United States within the next decade.

Building on the planning phase and the implementation of urgent and essential improvements completed during the first three years of the plan, milestones and deliverables over the last year are detailed in this report.

MAJOR MILESTONES AND DELIVERABLES

The Business & IT/IRM Transformation Strategic Plan identified three key strategies to which all program and projects are aligned.

1. Transform Business
2. Modernize IT Infrastructure
3. Establish Governance

During the fiscal year (FY) ending in 2014 and since, the following major milestones and deliverables were completed under these key strategies:

STRATEGY 1: Transform Business – Re-engineering state government business processes and applications for a new way of doing business in Hawai‘i.

Enterprise Resource Planning (ERP)

The state is accelerating implementation of an enterprise-wide ERP system that will replace the large majority of the current “central” systems within the Enterprise Support Services band, such as payroll; time and attendance; budget and finance; and acquisition, asset and grants management. In some cases, these legacy systems have been in use for decades and have been identified as no longer sustainable.

Accomplishments:

- Conceptual solutions architecture established a notional set of current systems that should be replaced by the ERP system.
- Developed finalized Data Conversion and Data Cleansing Strategy for ERP.
- ERP Request for Proposal, No. RFP-13-016-SW, was released on Sept. 16, 2013. Since then, RFP questions for clarification have been initiated with the offerors.
- Initiated Phase 1 and 2 of the Interim Asset Management (IAM) Project, enlisting departments’ assistance in collecting departmental inventory of building, facility and site assets to populate an integrated, comprehensive system for asset management of public assets.

Interim Asset Management (IAM) Project – Phase 1 and 2

On Nov. 1, 2014, Phase 1 of the Interim Asset Management (IAM) Project was deployed in accordance with Act 110, SLH 2013, which requires DAGS to coordinate efforts to establish a complete and accurate inventory of public buildings, facilities and sites on the lands of the public land trust to which state agencies hold title or over which they maintain management control. Therefore, state agencies are required to report on their inventory of public buildings owned or operated by each agency, and DAGS is required to incorporate the total inventory together with the public land trust inventory and the public land trust information system in an integrated, comprehensive system for asset management.

The scope of Phase 1 includes implementation of a solution with statewide inventory reporting and asset management functionality using data from the DAGS Public Works

Division (PWD). Also, asset valuation information as contained in the Fixed Asset Inventory System (FAIS) was analyzed and prototyped to confirm the ability for the IAM system to eventually be a source of fixed asset data for the state's Comprehensive Annual Financial Report (CAFR).

In Phase 2, departments are being incrementally invited to load their building, facility and site inventory into the IAM system. Asset valuation information contained in the Fixed Asset Inventory System (FAIS) will also be loaded into the integrated asset management system so that fixed asset data needed for the state CAFR can be obtained from the system.

Additional Progress:

- Interim Grants Project – The initial phase of the Federal Award Management System (FAMS), one of several interim projects, was successfully deployed in August 2014 and is being used by state staff to track federal awards. This interim project is supporting day-to-day operations, while laying the foundation for the “State Unified Resource Framework” (SURF) solution.
- Interim Budget Variance Reporting Project – The implementation of an electronic “budget to actual” variance reporting tool will enhance the state’s financial reporting capabilities. A prototype has been developed and the data is currently being validated.
- Human Resource Management System (HRMS) Upgrade Project – The first phase of this interim stabilization project includes the completion of a testing system so that end-user testing can begin by the end of this calendar year. This project mitigates the risk of continuing to use current aging hardware and out-of-support software.
- Interim Payroll Modernization Project – The current Time and Leave System (TLS) for OIMT and ICSD is being replaced. Scope considerations include deployment of the following to additional departments: timekeeping, G1 leave form processing, D55 Fringe Benefits/Overtime, and Form 7 Leave Accounting.
- Interim Department of Education (DOE) Payroll Automation Project – The planning phase of this project has started to examine DOE’s existing HR/payroll processes to determine how they can be modified by streamlining workflows and enabling existing technologies that are not currently being leveraged to their fullest potential.
- Uniform Chart of Accounts (UCOA) Project – Following a successful procurement for consulting services, a contractor began working with the state to develop a UCOA for the State of Hawai‘i. This UCOA will provide one of the basic foundational components for the state’s new ERP system, and provide the state with an accurate and comparable set of records, reports, and statements of all financial data.
- Payroll Calculations and Time and Attendance Assessment Project – The SURF team, DAGS Central Payroll and department subject matter experts have begun to identify all

the different types of payroll calculations and how departments currently keep and manage time based on department operational needs.

Tax Modernization

Tax System Modernization (TSM) involves streamlining and upgrading the state's tax system to include expansion of the overall use of electronic tax filing and electronic payment, enhanced analytics, and improved case management processing to shorten cycle times for the citizens of Hawai'i. Past year's successes with re-engineered business processes have succeeded in reducing the average time to receive a refund from 5-8 weeks to 1-2 weeks. OIMT also assisted DoTAX in identifying uncollected revenue using tax analytics and helped prepare tax system modernization SERVICE Plan and RFP.

While DoTAX is actively seeking a new system, the department has also prioritized integration with the DAGS and the Department of Budget and Finance (B&F) on an ERP system. Therefore, the initiative presents an opportunity for partnership and positions the enterprise for broader financial management improvements.

Accomplishments:

- Built and staffed internal DoTAX project management office to facilitate the TSM program in accordance with best practice project management methodologies.
- Developed project initiation documentation for the TSM program and the four projects managed under the TSM program.
- Engaged DoTAX employees in organizational change management activities including the validation of TSM program RFP requirements.
- Collaborated with the DoTAX and State Procurement Officer (SPO) to release the TSM program RFP and prepare for the evaluation of proposals.
- Began meeting with DoTAX subject matter experts to create "as is" business process maps to document business requirements and guide implementation of a new integrated tax system.

Health IT

The Health IT initiatives in OIMT incorporate aspects of technology planning and implementation across agencies including the Departments of Health (DOH), Human Services (DHS), and Commerce & Consumer Affairs (DCCA), as well as the Executive Office on Healthcare Transformation and others, toward coordination of projects, information systems, and information management in these areas.

Past year's successes include coordination of various stakeholders through the OIMT-facilitated Hawai'i Health IT Committee (HHITC). OIMT has continued far beyond this starting point to further health information exchanges and modernize health information architecture across agencies and programs.

Accomplishments:

- OIMT Health IT has concluded all work in an official capacity coordinating multi-agency planning and implementation around the Hawai'i Health Connector.

- Successful launch of the Medicaid KOLEA eligibility system and State Data Services Hub on Oct. 1, 2013 (led by DHS).
- Continuing phases of the Hub are in progress for communicating information to DHS from other agencies.
- The State CIO and Business Transformation Officer also helped the Hawai‘i Health Connector get the Hawai‘i Health Insurance Exchange (HHIX) fully up and running by Oct. 15, 2013, after bringing up partial capability on Oct. 1, 2013.
- One continuing project of significant importance is coordinating state agencies (via the Hawai‘i Health IT Committee and other actions) for the planning, building and advancing the non-profit state-designated Hawai‘i Health Information Exchange (HHIE).
- Other continuing efforts include coordination of telehealth planning among agencies and stakeholders.

Business Process Re-engineering

As part of Business Process Re-engineering (BPR), OIMT established the Business Transformation Representative program in July 2013 with participation from more than 75 percent of state departments. The purpose of the program is to support departments in BPR efforts and innovation statewide. Each department has designated a Business Transformation Representative to work with OIMT to support this program. Business Case Documentation was submitted by the departments to secure funding for BPR projects.

The following projects were initiated and are being supported by OIMT to assist the departments in their transformation efforts:

- Department of Health Contract Genie – Status: Project execution
- Department of Defense File Conversion to Electronic Format – Status: Project complete
- Department of Health Vital Records Ordering and Tracking System – Status: Project execution
- Attorney General – Advice memo automation
- Department of Labor and Industrial Relations – Decision: Management dashboard
- Department of Accounting and General Services Public Works Web-based Document Access – Status: Project plan development
- Department of Agriculture Quality Assurance Information Management System – Status: Project plan development
- Department of Agriculture Contracts Management System – Status: Project plan development
- Attorney General Advice Management System – Status: Project closeout
- Department of Human Services Benefit, Employment and Support Services (BESSD) Investigations Office (INVO) Database Consolidation – Status: Project complete
- Department of Public Safety Dashboard for decision-making – Status: Project execution
- Department of Labor and Industrial Relations Hawai‘i Inspection and Permitting System – Status: Project plan development

In its second year, the BTR program has expanded in scope and scale, with participation from more than 75 percent of state departments. With training opportunities in project management, public speaking and organizational change management, BTR participants are now being

leveraged in expanding their communication and change networks to promote IT transformation initiatives such as the Statewide Unified Resource Framework program.

Enterprise Email, Collaboration and Geospatial

Efficient communications and information access between the state and citizens is critical to the success of any program or service. Convergence technologies associated with collaboration and messaging play a pivotal role in bringing about a powerful and revolutionary change and render many devices obsolete (e.g., traditional telephone handset and facsimiles). Online convergence services provide integrated services in a single environment.

Having completed several successful pilot projects, OIMT is moving into full implementation to migrate Executive Branch departments from Lotus Notes to Microsoft Office 365, based on an aggressive schedule over the next two years.

Accomplishments:

- Entered into an enterprise license agreement with Microsoft for the Office 365 suite of products for up to 12,000 state employees to facilitate the migration from IBM Lotus Notes or any other current solution or product utilized as email. (As part of the Office 365 product suite, LYNC provides an integrated solution providing voice, video and Web collaboration services via robust IP solutions.)
- Successfully initiated Active Directory Federation Services (AD FS) for the Office 365 project. AD FS is a feature of the Windows Server operating system that extends end users' single sign-on access to applications and systems outside the state firewall. AD FS will be deployed to state users as the migration to Office 365 continues over the next two years.
- Developed SharePoint sites to provide Intranet Collaboration and Communication.
- Entered into an Enterprise License Agreement with ESRI for Geographical information Systems deployment to an unlimited number of users statewide.

Enterprise Program Management Office

The purpose of the Enterprise Program Management Office (EPMO) was to help standardize and support program and project management across the State of Hawai'i. Its mission focused on industry best practice methodology and tools for program and project management for the State of Hawai'i. Through improved use of resources, consistent methods and greater transparency, the EPMO aimed to increase rates of successful project completion from the department level through enterprise IT transformation initiatives.

Accomplishments:

- Project management related training sessions have been created and delivered to increase awareness and build expertise across the enterprise.
- An enterprise Project Management Information Systems (PMIS) was designed, developed, tested and piloted. The new system is based on an industry leading technology platform that incorporates processes and procedures aligned with Project Management Institute® (PMI) standards, but with flexibility to accommodate varying project and departmental requirements.

- Established a comprehensive set of templates that will provide consistency to projects and project managers across the state.
- Transformation Internship Program (TIP), a partnership with the Department of Human Resources Development (DHRD), completed its sixth session and has provided internship opportunities to more than 200 students participating in a wide range of projects in across several departments.

Additionally, based on a foundation of openness, collaboration and communication, the EPMO strived to promote a state culture that embraces IT and business transformation.

Implemented initially as a pilot with programs and projects under OIMT or part of the Business Process Re-engineering (BPR) program, EPMO provided project management-related training sessions to increase awareness and expertise. These trainings included:

- Introduction to Project Management
- Creating Project Plans and Schedules
- Identifying and Managing Project Risks
- Project Management Information System (PMIS) for Administrators, Project Managers and Team Members
- PMP Certification Preparation
- Design Thinking
- Public Speaking
- Portfolio Management

As we head into the implementation phase of the technology transformation plan, OIMT is repurposing positions to meet future skill sets and functions. Repurposed positions will be posted on the DHRD website.

STRATEGY 2: Modernize Technology – Consolidate and modernize the infrastructure into more secure and reliable backbone with common enterprise shared services for all departments.

The state’s investment over the last four years to upgrade its network and communications backbone has increased uptime from below 80 percent in 2011 to 95 percent in 2012 and 99.8 percent in 2013. Capacity has increased from 100Mbps to 10Gbps (a improvement of 1,000 percent!).

Hawai‘i Government Private Cloud

Significant effort and priority was given this past year to the secure Hawai‘i Government Private Cloud (GPC) project, one of the key OIMT initiatives supporting the strategy to consolidate and modernize our technology infrastructure. One of the near-term goals of the Hawai‘i GPC is to take the many disparate servers spread out among the departments and convert them to virtual servers that reside in the state’s centralized data center in the Kalanimoku Building.

Additionally, during the next fiscal year, the Hawai‘i GPC project will implement self-service and provisioning capability, so that departmental customers who want to request and implement a server will be able to do so without any human intervention and have the server provisioned

immediately. The result of this consolidation and modernization in data center resources will be reduced spending on infrastructure (buy once, use many times), reduced demand on personnel to establish and maintain the infrastructure, increased reliability, and enhanced security.

Lastly, as more servers become virtualized, it will reduce the overall risk at the Kalanimoku Building data center, which is rapidly reaching its limits on power and physical space.

Accomplishments:

- Implemented a fully virtualized computing infrastructure in the Kalanimoku Building data center, which is incrementally reducing the power demands on that data center as each physical server is decommissioned and converted to a virtual server.
- Established a fully redundant infrastructure at a data center co-location facility on O‘ahu, providing full backup and disaster recovery capability for the Hawai‘i GPC. This is the first time in the state’s history that any kind of disaster recovery capability has been implemented.
- Created 250 virtualized servers to host Hawai‘i department applications and partnered with over a dozen departments/agencies in identifying infrastructure requirements and began migrating applications over to the cloud. According to the Uptime Institute, decommissioning a single physical rack server can annually save \$500 in energy, \$500 in operating system licenses, and \$1,500 in hardware maintenance costs.
- Began the process of acquiring a new enterprise class data center on O‘ahu which will be designed for high availability and disaster survivability. OIMT plans to partner with the private sector to accelerate the acquisition of a Tier 3 data center and hopes to have it ready for occupancy within 36-40 months. Eventually this data center will be part of a five data center network (two on O‘ahu and one on each of the major islands).
- Began migrating critical department workloads over to the virtual environment and alleviate risk of failures
- Developed service management processes and service-level agreements (SLAs).
- Developed process for physical-to-virtual (P2V) and virtual-to-virtual (V2V) migrations.
- Developed applications prioritization and migration plan.

Cloud-First Policy

To fully realize the efficiencies associated with consolidation and cloud computing, the state has established a “cloud-first policy” across state departments to begin leveraging the Hawai‘i GPC for all new IT projects as well as migrate existing applications, wherever feasible. Hawai‘i is among the first states in the nation to implement a cloud first policy for IT projects. This sets a clear preference for departments’ use of the Hawai‘i GPC over existing and often outdated legacy systems for which further investment of taxpayer dollars cannot be justified.

Departments have also been asked to develop a formal plan by March 2015 to leverage Hawai‘i GPC services for their existing and future applications, while engaging the OIMT Hawai‘i GPC Project Team to support planning efforts and begin documentation requirements. The Hawai‘i GPC will continue to expand and improve functionality through fiscal year 2015.

Data Center

Over the past year, OIMT has entered into lease agreements for disaster recovery and overflow capacity with a co-location provider on O‘ahu and an additional facility on Maui, providing significant opportunity to re-claim power and cooling capacity in the state’s primary data center, as well as prepare the state for the increased demand for computing services, which will come as a result of enterprise projects such as ERP and tax modernization.

Accomplishments include:

- Signed lease with an O‘ahu co-location facility to provide data center overflow capacity and disaster recovery capability.
- Drafted and implemented Hawai‘i’s Disaster Recovery Plan for all applications residing on the Hawai‘i GBC.
- The cloud-virtualization of servers in our primary data center has enabled us to embark on an internal private cloud offering.
- Entered into agreements with local co-lo providers that have platform, infrastructure and storage services that provide supplemental resources to the primary data center.

These tactical moves provide some capacity and disaster recovery capabilities, affording minor risk mitigation until the permanent strategy can be implemented:

- Building the virtualized environment at the Kalanimoku Building with disaster recovery capability at DRFortress.
- Contracting with the two island co-location facilities to provide overflow capacity in light of future system needs.
- Refurbishing Maui Research Technology Center to use for rudimentary disaster recovery.
- Enhancing network connectivity with co-location providers and MRTC.

Existing State:	The state IT assets spread across 27+ departmental and ICSD data centers on O‘ahu.
Tactical Enhancements:	High Speed connectivity between University of Hawai‘i, DR Fortress, Systemmetrics, MRTC and the Kalanimoku Building.
Goal:	Most state system housed in highly robust Tier 3 data center located away from likely disaster zones.

Network Hardening

The State of Hawai‘i’s institutional WAN backbone network is a key enabler of the state’s IT transformation program. Successful implementation of projects like ERP and Tax Modernization will depend on a stable, secure, high-speed network. Therefore, OIMT has dedicated substantial effort over the past year to understanding future requirements and identifying weaknesses that must be addressed in order to reach the future state vision.

While the current WAN backbone can meet short-term needs, a modernization program is required to increase coverage, capacity, reliability and security. The state’s IT transformation coupled with the need to mitigate security and reliability risks is driving the need to add diversity

to the backbone and increase speed (an increase of 100 times in bandwidth over the next 5-7 years).

Accomplishments:

- Documented the current WAN architecture, defined and documented the future state vision, and completed a gap analysis between the current state and future state.
- Defined a Program Plan for future backbone upgrade and improvement projects.
- Began execution of the plan, which includes:
 - Added critical sites to the fiber optic backbone.
 - Upgraded data center network infrastructure at Kalanimoku Building.
- Began installing and testing network infrastructure at DRFortress.
- Assessed strengths and weaknesses of network nodes and began detailed planning for future site upgrades
- Began supporting the departments in monitoring the network devices within the departmental LANs.
- Established a network/security operations center.
- Defined network services and drafted service levels for a showback/funding mechanism.
- Added diversity to the WAN backbone, including fully diverse routes (across physically separate inter-island cables) on a new “southern loop” connecting O‘ahu, Maui and Hawai‘i Island.

Southeast Asia – United States Consortium

In 2014, Hawaiian Telcom Holdco, Inc. joined other international telecommunications companies to form the Southeast Asia – United States (SEA-US) consortium to build and operate a new trans-Pacific submarine cable system, connecting Indonesia, Philippines, Guam, Hawai‘i and California by the end of 2016.

By building critical infrastructure necessary to Hawai‘i’s technological future, this collaboration extending across international waters will help provide the bandwidth necessary to keep pace with growing internet demand in Hawai‘i from consumers, businesses and academic institutions, while supporting the Aloha State’s place as the anchor of the Pacific.

The SEA-US submarine cable system is projected to deliver a state-of-the-art 100 Gigabytes per second (Gbps) ultra-long haul system that will provide an initial 20 Terabytes per second (Tbps) of capacity over approximately 15,000 kilometers of fiber. As part of the consortium, Hawaiian Telcom will invest approximately \$25 million over the multi-year construction period for a fractional ownership in the system.

The SEA-US system is strategically located along an underserved trans-Pacific route and will be the first submarine cable directly connecting Indonesia and the United States. With a high concentration of existing trans-Pacific fiber cables on the Japan-United States route, this system will provide critical route diversity options allowing customers to reduce risk due to natural disasters from typhoons, earthquakes and tsunamis thereby helping to ensure stable connectivity.

Broadband

OIMT is working with network and cable providers to establish more infrastructure and faster speeds at affordable prices. OIMT is also partnering with DCCA to negotiate more available infrastructure on Neighbor Islands through Cable Franchise Agreements.

Additional action includes negotiation for new optic cables to be established in Hawai'i, upgrading the state's network to accommodate faster broadband speeds, securing new funding for broadband upgrades, and planning for future increased broadband needs and studying the availability of wireline and wireless broadband services statewide.

Accomplishments:

- Assisted DCCA in conducting a mapping study for broadband connectivity to show where there were connectivity capabilities and where there were not, and identify areas that have been underserved with unreliable connectivity. (The study also analyzed interisland connections. It was the first time that such extensive broadband information had been gathered together, documented, and compiled into one place.)
- Connections are now faster, more reliable, and more affordable for resident and businesses, and interisland connections have improved as a result of improvements to infrastructure for broadband. Provider upgrades to broadband have also improved capacity, with the state moving from 3G access to 4G LTE access.

Enterprise Security and Privacy

The ability to analyze, model and baseline network traffic is key to strengthening the core of the state's network. Identifying data leaving to suspect nations, playing back network traffic, and drilling in on specific events is critical for overall understanding and targeted analysis. Historic progress has been made over the last year to improve the state's cyber-security posture to ensure protection of valuable information and data assets.

Accomplishments:

- Established the state's first Security Operations Center (SOC) in February 2014 to conduct continuous monitoring and response to cyber threats to departments and agencies.
- Aligned of the state cyber security approach with the National Cyber Security Framework.
- Implemented an enterprise-wide Incident Response (IR) program capturing numerous critical components needed for proper IR response. This initiative has placed processes, procedures, reporting and a highly structured workflow around this critical component. IR is the first line of response to the cyber threat and having a proven and organized approach is necessary.
- Formed a partnership with the U.S. Department of Homeland Security's Cyber Hygiene program. This program provides network vulnerability scanning of external facing public IP addresses to help the state understand how it appears to attackers on the Internet. It is being used by the Executive Branch and other agencies like the Judiciary, Legislature, OHA and the Ethics Commission.
- Began proactively monitoring the state's network for potential security breaches and notifying departments of potential threats found. OIMT also publishes regular security

announcements to inform departments of recent occurrences and provide security policy updates.

- Began implementation of upgrades to the state’s security infrastructure to prevent breaches of personal data.
- Procured a four-part assessment over a three-month performance period to identify known and prioritized security and privacy threats, preliminarily assess Hawai‘i’s preparedness against threats, and develop a roadmap to address security gaps identified in the assessment. (To do so, OIMT and ICSD implemented software that provides the state this capability).
- Deployed security tools in front of departmental networks to provide additional protections against network based attacks. This provides additional layers of security not previously available to departments.

U.S. Department Of Homeland Security Risk and Vulnerability Assessments

To augment the ongoing cyber security efforts, the state Security Operations Center (SOC) is currently coordinating with the U.S. Department of Homeland Security to conduct risk and vulnerability assessments (RVAs) available to two departments within the state. OIMT will select two departments based on greatest need. RVA scans will be performed in first quarter 2015.

STRATEGY 3: Establish Governance – Improve management and oversight through transparency and accountability is the overarching strategy that will define tools, portfolio, policies, process, architecture, organization, and “trust but verify” performance through dashboards and periodic management reviews.

IT Governance

Reduced risk, cost savings or avoidance in the millions of dollars, and transparency as never before seen in Hawai‘i are the benefits IT Governance. The first steps included the development, publishing and adoption of the award-winning Business and IT/IRM Transformation Strategic Plan, now transitioning in its third year from planning to implementation.

As part of that plan, the State CIO and the OIMT team this past year have focused on building from the ground up three foundational programs to allow the state to consistently deliver increased government services through improved efficiencies and more cost effective IT. The three key programs that will directly benefit all Executive Branch and attached agencies are IT Governance, Enterprise Architecture, and Enterprise IT Portfolio Management. These programs are the foundation leading to significant return on investment (ROI) in IT across the entire state.

Foundational Element 1 – IT Governance

IT Governance is simply putting a structure around how Hawai‘i’s IT strategy is aligned with department business strategy, ensuring that the state stays on track to fulfill the IT strategy and goals outlined in the technology transformation plan. Benefits to the state include unambiguous ways to measure IT performance and a common knowledge of the strategy and agreement by all departments on the path to implement the plan.

It is also the mechanism for coordination of activities, where all the departments across the Executive Branch have a “voice” in the execution of the IT strategy. Governance is where transparency of actions to all departments occurs, establishing accountability to each other for execution of the IT strategy for the good of the state.

IT Governance was established by OIMT with the participation of department CIOs and state personnel Subject Matter Experts (SMEs) who collaboratively developed scope, content, and IT best-practices to use for the entire state. The OIMT team (through over 100 working group sessions) developed 84 first-ever charters, policies and standards that apply to all state departments. These will guide fact-based IT investment decisions.

Foundational Element 2 – Enterprise Architecture

The OIMT team has begun building the entire State Enterprise Architecture; allowing the state, for the first-time ever, to model and analyze state business processes, information exchange, IT solutions and systems, and technical support of business processes in one holistic view. This will now permit making fact-based decisions in planning future IT investments and enable the Governor, Legislature, and all departments to visually see changes in IT and estimate the total impact of these changes to the state. The State Enterprise Architecture also allows the state to have a single point of contact for state IT information, simplifying where individuals go for information on IT spending across the islands.

Foundational Element 3 – Enterprise IT Portfolio Management

Continued development of IT Governance and Enterprise Architecture is the foundation for IT Portfolio Management for the State of Hawai‘i. OIMT is building a set of investment analysis reports, providing transparent reporting of risks and spending for all department and statewide IT projects, to the Governor, Legislature, and citizens of Hawai‘i. IT Portfolio Management is the mechanism for fact-based analysis to reduce the risk of poor IT project execution, whether cost, schedule or scope, through accountability. When matured, IT Portfolio Management will enable the state, for the first time ever, to reduce duplication of IT, identify IT project performance, and effectively reduce cost throughout the enterprise.

Accomplishments include:

- Developed 84 first-ever charters, policies and standards that apply to all state departments (These will guide fact-based IT investment decisions).
- Secured consultant support to develop enterprise architecture.
- The processes for approval of technology projects and purchases have been documented and are being vetted through the Enterprise Architecture working groups.
- Secured consultant support to design and develop portfolio management system.
- The Program Management Information System (PMIS) “Alpha” version of the online web system has been created and will launch next quarter.

In addition, OIMT initiated collaborative work with the Office of Information Practices to publish the Open Data Policy (applicable to the following section).

Open Government

The state has made clear progress in meeting several Open Government objectives and is proceeding rapidly with expanding significantly enhanced Open Government capability. This builds on previous year's accomplishments, including the upgrading of all 18 department websites and the launch of my.hawaii.gov, a single, "user-friendly-intelligent" Web portal with a service catalog of 101 online services and 63 mobile apps.

Recent improvements were recognized at the national level. Hawai'i was one of six states to receive a "Perfect Score" in the 2014 State Open Data Policies and Portals Report by the Center for Data Innovation.

Accomplishments:

- Data sets publicly available through the state portal (Hawaii.gov) has more than doubled over the last two years, increasing to 649 data sets today compared to 542 in 2013 and 239 in 2012 – providing residents, analysts, and civic developers with unprecedented access to state data.
- Launched the Hawai'i Open Performance Dashboard (dashboard.hawaii.gov) with 15 goals. OIMT is continuing to work with the agencies to define additional goals.
- Soft-launched the OHA dashboard (dashboard.hawaii.gov/oha).
- New Intranet Quorum (IQ) system implemented in the Governor's office and is continuing into the new administration with potential use across the Executive Branch of the State of Hawai'i (The system is a Citizen Relationship Management tool that includes workflow for Executive Office and department's constituent activities, as well as request tracking, legislative monitoring and dashboard reporting).
- Redesigned and relaunched Hawai'i's Open Data portal, bringing new features and tools to open data (New charting libraries and new mapping tools allow for the creation of dynamic visualizations, and datasets are larger and faster).
- Seventeen performance dashboards were developed to openly report on departmental activity, funding and spending.
- Initiated collaborative work with environmental sustainability partners to develop the Aloha+ Challenge dashboard.
- Initiated work with the Department of Public Safety to develop a management dashboard.

ORGANIZATION

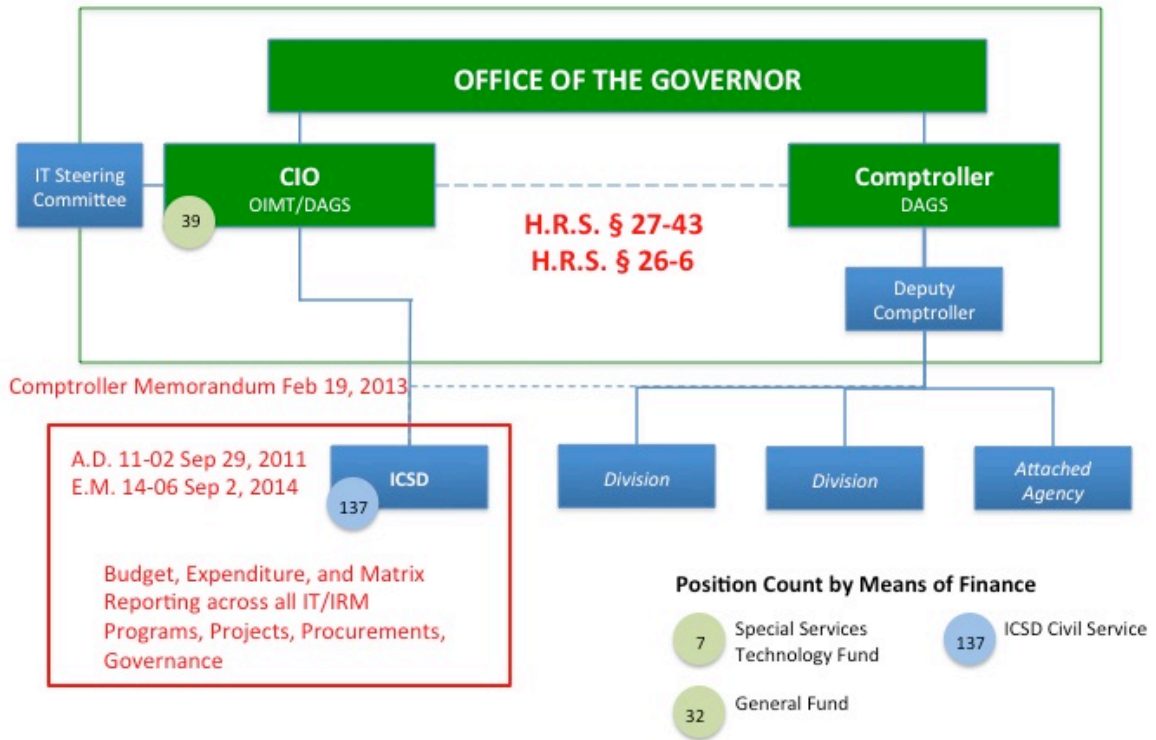
OIMT, with functional oversight over ICSD, is advancing the planning stage for the reorganization and integration of the two organizations. The agencies are working with the new Administration and the Departments of Accounting and General Services (DAGS), Human Resources Development (DHRD), and Budget and Finance (B&F) to formalize the reorganization and identify legislative requirements.

OIMT has developed a draft organizational chart in the DAGS format (previously presented) that aligns the administrative reporting of OIMT and ICSD and incorporates all exempt and civil service positions within the agencies. The draft organizational chart has been reviewed internally by ICSD management and, following the consent of DAGS, it will be distributed to DHRD. Initial union consultation has begun.

OIMT is reviewing civil service job classifications for IT positions in ICSD and considering the “broad-banding” of salary ranges for the classes.

Current and proposed organizational structures follow:

STATE ORGANIZATIONAL STRUCTURE



MAJOR EVENT – 2014 HAWAI‘I DIGITAL GOVERNMENT SUMMIT

To highlight industry best practices and spur innovation in the public sector, OIMT hosted the third consecutive Hawai‘i Digital Government Summit free and open to government employees on Dec. 16, 2014, at the Hilton Hawaiian Village.

Under the theme “Transformation in Action,” the summit’s advisory board, chaired by the State CIO, brought together public- and private-sector leaders to create an agenda designed to make the use of technology in government relevant and actionable to state and other local personnel. Informative sessions aligned with the state technology transformation plan’s guiding strategies to transform IT and deliver increased IT value to all branches of government, touching on transforming business, modernizing IT Infrastructure, and increasing transparency and accountability by establishing governance.

The summit was a unique opportunity for government employees to see the latest in digital government solutions, keep current with policy issues and the state’s progress, and network with key government executives and industry specialists. This year’s summit was attended by more than 700 registrants, of which 655 were public-sector employees.

AWARDS

Hawai‘i’s advancement toward becoming a top-tier digital state has earned recent national recognition. Recent accolades include:

- 2014 Best of the Web State Portal from the Center for Digital Government
- 2014 Best Government Website from the Web Marketing Association
- 2014 Government Innovator of the Year Award from the Government Technology Research Alliance
- A “Perfect Score” in the 2014 State Open Data Policies and Portals Report by the Center for Data Innovation (Hawai‘i was one of six states to receive a perfect score)
- B+ Grade in the Center for Digital Government’s biennial Digital States Survey (Hawai‘i’s best score to date and an improvement over a B- in 2012)

Best of the Web State Portal

The Best of the Web award-winning Hawaii.gov portal landing page launched in 2013, significantly enhancing the consistency and searchability of Hawai‘i government websites. As just one part of OIMT’s larger effort to improve state government services, this enhanced landing page provides more than a portal destination; it is government as a platform.

Featuring responsive design, the new portal landing page adapts to mobile devices and numerous web browsers without losing functionality. Its “touch-first” design makes it compatible with mobile and tablet devices.

OIMT collaborated with the state’s Internet portal provider, Hawai‘i Information Consortium LLC, to redesign Hawaii.gov and modernize the department websites as part of the state’s larger web modernization initiative, which launched in 2013. Like the

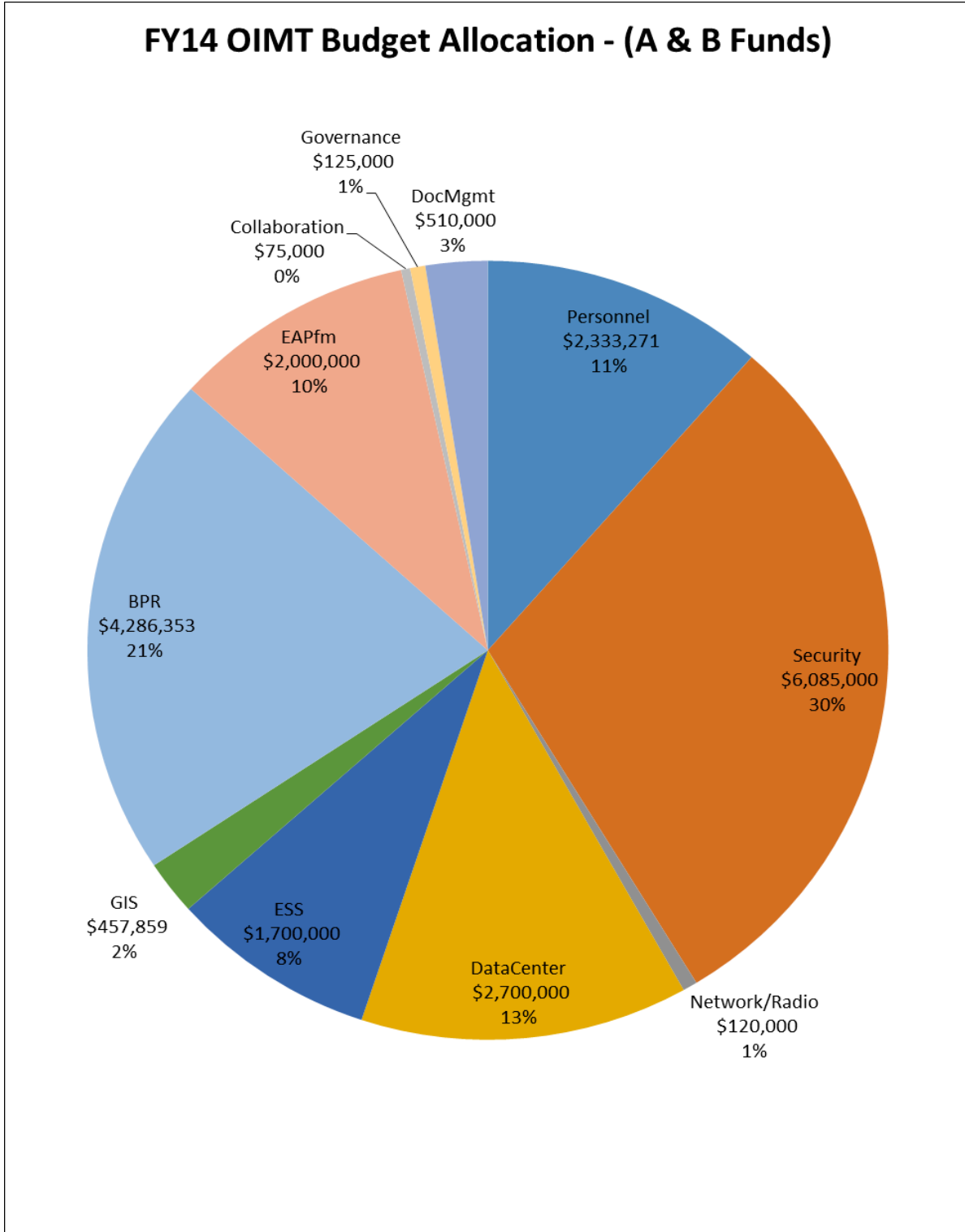
portal, departments' websites were revamped and standardized using open source technology, and showcase the cultural heritage of Hawai'i.

The redesigned portal in conjunction with the modernized department websites provides visitors with easy access to state agencies' content on desktop computers, laptops, tablets and mobile devices, connects them quickly to the information or services for which they are searching, and conveys Hawai'i's unique sense of place and aloha spirit.

Citizens are able to search without refreshing or reloading the page, and an auto-complete helper allows for suggestions based on real search results to appear as the user types in the input field. The search function uses USA Search, an open-source search service provided and managed by the U.S. General Services Administration's Office of Citizen Services and Innovative Technologies.

FY 2014 BUDGET AND EXPENDITURE

Below is a breakdown of OIMT budget compared to breakdown of OIMT actual expenditures for FY 2014.



FY14 OIMT Expenditures - (A & B Funds)

