

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
ANNUAL REPORT ON GOALS, OBJECTIVES AND POLICIES
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Program ID/Title: AGS-130
 Information Management & Technology Services (OIMT)

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I. Goals

The Office of Information Management and Technology (OIMT) has prepared The State of Hawai‘i Business and Information Technology / Information Resource Management (IT/IRM) Transformation Strategic Plan to ensure that the necessary information services are appropriately planned, invested, and implemented, based on mission requirements identified in the plan.

OIMT’s charge is to design (architectural level), invest, and implement services and solutions that achieve the objectives in the plan.

II. Objectives and Policies

A. Establish governance processes, policies, and methodologies that guide the management and oversight of the state’s IT/IRM investments, acquisitions, and projects.

B. Identify opportunities for business process re-engineering (BPR) and initiate projects that will directly benefit the public and state employees through the modernization of lines of business (LOBs).

C. Institute enterprise shared services and a consolidated IT/IRM infrastructure to address internal-facing, shared support services, data management services, infrastructure and systems on an enterprise-wide basis as the technology foundation for future work.

III. Action Plan with Timetable

A. Establish governance processes, policies, and methodologies that guide the management and oversight of the state’s IT/IRM investments, acquisitions, and projects.

1. Past Year Accomplishments (FY2014)

a. Enterprise Architecture development in progress: Phase 1 (Portfolio Management Development) conducted with assistance of experienced vendor.

- b. The processes for approval of technology projects and purchases have been documented and are being vetted through the Enterprise Architecture working groups.
 - c. The Program Management Information System (PMIS), consisting of Collaboration and Content Management, and Project Management have been deployed successfully. First consumers of the PMIS are OIMT/ICSD and a handful of departments, which are helping improve the governance process for a subsequent rollout to the entire state.
 - d. Launched the Hawaii StateStat Dashboard which is intended to report progress on key state initiatives and provide for transparency with constituents, <https://dashboard.hawaii.gov/> with 15 goals. Continuing to work with the agencies to define additional measurable goals.
 - e. Soft launched the OHA dashboard: <https://dashboard.hawaii.gov/oha> which is intended to report progress on key OHA initiatives.
 - f. Working with Public Safety to develop a management dashboard which is intended to report progress on key Public Safety initiatives.
 - g. Working with OIP to publish the Open Data Policy. A policy on Open Data will ensure that the Federal Directive on Government Transparency is properly followed via practices and procedures of reporting and archiving data.
 - h. Working with the Sustainability group to develop the Aloha+ Challenge dashboard which is intended to report progress on key initiatives.
2. One Year (FY2015)
- a. Ensure that governance projects, working groups and initiatives continue.
 - b. Approve and implement all policies and procedures related to governance.
 - c. Develop SharePoint site for tracking Policy documents.
 - d. Initiate Executive Branch Agencies participation on all GOV, EA, PFM related initiatives via CIO/EA Working Group (EAWG).
 - e. Establish Charter for GOV, EA and PFM, roles, responsibilities, engagement rules and objectives, and deliverables for FY15.
 - f. Establish priority GOV, EA and PFM policies, standards and procedures for statewide adoption.

- and centralizing the information for streamlined, web-based access by State and community stakeholders): Project plan development
- viii. Department of Agriculture Quality Assurance Information Management System (an integrated quality assurance management system that allows for the capture, management and sharing of information in order to protect consumers, businesses, and manufacturers from unfair practices) – Status: Project plan development
 - ix. Department of Agriculture Contracts Management System – Status (a system for simplifying and expediting the contract management and approval process): Project plan development
 - x. Attorney General Advice Management System – Status: Project complete.
 - xi. Department of Defense File Conversion to Electronic Format (Youth Challenge Academy – Conversion of paper files to electronic format, freeing up space for a study hall for students) – Status: Project complete
 - xii. Department of Health Contract Genie (Completion of Phase 2 of DOH’s contract administration system, which will streamline the process of awarding contracts and expediting payments under 103(F) & 103(D)) – Status: Project underway
 - xiii. Department of Health Vital Records Ordering and Tracking System – Status (a system that will serve as a central repository of all vital record - death, marriage, and birth - orders to ensure streamlined service and more satisfied customers) : Project complete.
 - xiv. Department of Human Services Benefit, Employment & Support Services (BESSD) Investigations Office (INVO) Database Consolidation – Status: Project complete (In connection with the Supplemental Nutrition Assistance Program, integrating multiple systems to allow for elimination of duplicative work, streamlining operations and validating data)
 - xv. Department of the Attorney General Advice Memo Automation- Conversion of paper index cards to electronic system allowing attorneys easier access to AG legal memos
 - xvi. Department of Public Safety Dashboard for Decision-making – Status (a performance management system that will allow for

tracking key indicators and targets, and better decision-making at corrections facilities): Project underway

- xvii. Department of Labor and Industrial Relations Hawaii Inspection and Permitting System (a system to develop a unified application for applying for, logging, scheduling and issuing inspections and permits) – Status: Project plan development
 - xviii. Uniform Chart of Accounts — The State has awarded a contract to a vendor to assist with establishing a new Uniform Chart of Accounts.
 - xix. Interim Grants (iFAMS) —The interim Federal Award Management System (iFAMS) will provide an immediate solution to improve the State’s ability to manage and consistently report on federal awards. Phase 1 of the project has been completed. Phase 2 of the project is in the final stage of the procurement process.
 - xx. Interim Budget — Department of Budget and Finance, Department of Human Services, and OIMT have partnered to develop an Interim Budget Solution. The project consisting of budget/actual variance reporting is complete.
 - xxi. Interim Assets — This project requires the Department of Accounting and General Services to coordinate an inventory of public buildings, facilities, and sites on public trust lands. The solution went live in October 2014.
 - xxii. Enterprise Resource Planning (ERP) —
Program activities – e.g. business process alignment sessions and organizational change management – continue. Interim ERP Solutions have been launched and placed into production. The ERP procurement is in process and project transition binders containing all the information relevant to the ERP project have been created for use by the next administration.
- b. Enterprise Program Management Office
- i. Project management related training sessions have been created and delivered to increase awareness and build expertise across the enterprise.
 - ii. An enterprise PMIS was designed, developed, tested and piloted. The new system is based on an industry leading technology platform that incorporates processes and procedures are aligned with Project Management Institute® (PMI)

standards, but with flexibility to accommodate varying project and departmental requirements.

- iii. Established a comprehensive set of templates that will provide consistency to projects and project managers across the State.
- iv. Transformation Internship Program (TIP) is a partnership with the Department of Human Resources Development (DHRD) where the program is promoted at all major universities and colleges within the State. Currently in its sixth session, TIP has provided internship opportunities to more than 200 students participating in a wide range of projects in across several departments.

2. One Year (FY2015)

- a. Deliver the ERP elements that bring the most operational stability and efficiency to the State.
- b. Continue to support the Tax System Modernization project.

3. Two Years

- a. Deliver the ERP elements that bring the most operational stability and efficiency to the State.
- b. Implement IT customer service excellence.

4. Five Years

- a. The program will continue to refine objectives that were previously identified and follow-up on unfinished objectives and any new initiatives that may have been identified.

C. Institute enterprise shared services and a consolidated IT/IRM infrastructure to address internal-facing, shared support services, data management services, infrastructure and systems on an enterprise-wide basis as the technology foundation for future work.**

**Refer to AGS-131 Information Processing & Communication Services (ICSD) Annual Report on Goals, Objectives, and Policies for additional information.

1. Past Year Accomplishments (FY2014)

a. ENTERPRISE SHARED SERVICES ACCOMPLISHMENTS

- Shared Services Center

- i. For the future state vision the goal will be to have redundant meshed shared services centers (SSC) distributed across the islands to provide high availability, fault tolerance, data

- backup and replication, disaster recovery, and always-on services to the State of Hawai‘i. Connections between shared services centers will be provided with dedicated high-speed fiber optic lines with service providers and state wireless connections acting as redundant and backup links respectively.
- ii. Over the past year, OIMT has entered into lease agreements for disaster recovery and overflow capacity with a co-location provider on Oahu 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.
 - iii. Signed lease with an Oahu co-location facility to provide data center overflow capacity and disaster recovery capability
 - iv. Drafted and implemented Hawaii’s Disaster Recovery Plan for all applications residing on the Government Private Cloud
 - v. The Cloud - Virtualization of servers in our primary data center has enabled us to embark on an internal private cloud offering which offers a capacity of up to 3000 virtual hosts.
 - vi. We are currently utilizing Software as a service for our Collaboration (SharePoint) pilot, and for our Open data initiative at <http://data.hawaii.gov>.
 - vii. Entered into agreements with local co-location providers that have Platform, Infrastructure and Storage services that provide supplemental resources to our primary data center.
 - viii. State of Hawaii Recognized Amongst Six States as #1 Best in Class for Open Data (August 18, 2014) received a perfect score (8 out of 8 points) for the open data program based on four factors: “presence of open data policy, quality of open data policy, presence of an open data portal and quality of an open data portal.”
 - ix. State of Hawaii Awarded “Best Government Website” in the Web Marketing Association 2014 Web Award – September 15, 2014 The State of Hawaii’s main web portal (Hawaii.gov) was named “Best Government Website” on September 15, 2014 as part of the Web Marketing Association’s 2014 WebAwards. The update was part of the OIMT’s award-winning Business IT/IRM Transformation Plan unveiled in 2012. This is the 23rd

national award for the transformation program launched by OIMT and State of Hawaii since 2011

- x. 2014 Award of Excellence for Leadership in Government Transformation Using EA - Government Project, Civilian. The OIMT team continued the Government transformation with implementation from 2012-2014 through three strategies (Business, Technology and Transparency/Accountability) and Top 10 Enterprise Programs.

- Government Private Cloud

- i. Significant effort and priority was given this past year to the Government Private Cloud 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 Government Private Cloud is to take the many disparate servers spread out among the departments and converts them to virtual servers that reside in the state's centralized data center in the Kalanimoku Building. Additionally, during the next fiscal year, the Government Private Cloud Project will implement self-service and provisioning capability, so that departmental customers that 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 our 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 our Kalanimoku data center, which is rapidly reaching its limits on power and physical space. Towards achieving these ends, the following specific accomplishments this past year include:
 - ii. Implemented a fully virtualized computing infrastructure in the Kalanimoku 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.
 - iii. Established a fully redundant infrastructure at a data center co-location facility on Oahu, providing full backup and disaster recovery capability for the Government Private

- Cloud. This is the first time in Hawaii's history that any kind of disaster recovery capability has been implemented.
- iv. Created over 300 virtualized servers to host Hawaii 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.
 - v. OIMT has begun the process of acquiring a new enterprise class data center on Oahu 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 48 months. Eventually this data center will be part of a meshed data center network across all islands.
 - vi. Begin migrating critical department workloads over to the virtual environment and alleviate risk of failures
 - vii. Developed Service Management processes and SLA's
 - viii. Developed process for physical-to-virtual (P2V) and virtual-to-virtual (V2V) migrations
 - ix. Developed applications prioritization and Migration Plan
- Network Hardening
 - i. The State of Hawaii'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 in the current state 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 (100 x increases in bandwidth over the next 5-7 years).

- ii. Documented the current WAN architecture, defined and documented the future state vision and completed a gap analysis between the current state and future state
 - iii. Defined a Program Plan for future backbone upgrade and improvement projects
 - iv. Defined a Program Plan for future backbone upgrade and improvement projects. Began execution of the plan, which includes:
 - v. Added critical sites to the fiber optic backbone
 - vi. Upgraded data center network infrastructure at Kalanimoku Building
 - vii. Began installing and testing network infrastructure at DR Fortress
 - viii. Assessed strengths and weaknesses of network nodes and began detailed planning for future site upgrades
 - ix. Began supporting the departments in monitoring the network devices within the departmental LANs
 - x. Established a fully operational network/security operations center
 - xi. Defined network services and drafted service levels for a showback/funding mechanism
 - xii. Added diversity to the WAN backbone, including fully diverse routes (across physically separate inter-island cables) on a new “southern loop” connecting Oahu, Maui and the Big Island
- Enterprise Resource Planning (ERP)
 - i. The State is moving forward with implementation of an enterprise-wide ERP system that will replace the large majority of the current “central” systems within the Enterprise Support Services band.
 - ii. The conceptual solutions architecture has established a notional set of current systems that should be replaced by the ERP system.
 - iii. Developed finalized Data Conversion and Data Cleansing Strategy for ERP.
 - Tax Modernization
 - i. Built and staffed internal DoTAX project management office to manage the TSM Program in accordance with best practice project management methodologies.
 - ii. Developed project initiation documentation for the TSM Program and the four projects managed under the TSM Program.

- iii. Engaged DoTAX employees in organizational change management activities including the validation of TSM Program RFP requirements.
- iv. Collaborated with the DoTAX and SPO to release the TSM Program RFP and prepare for the evaluation of proposals.
- v. 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
 - i. The Health IT initiatives in OIMT incorporate aspects of technology planning and implementation across agencies including the Department of Health, Department of Human Services, Department of Commerce and Consumer Affairs, Governor's Office of Healthcare Transformation, and others, towards coordination of projects, information systems, and information management in these areas.
 - ii. OIMT Health IT has concluded all work in an official capacity coordinating multi-agency planning and implementation around the Hawaii Health Connector.
 - iii. Successful launch of the Medicaid KOLEA eligibility system and State Data Services Hub on October 1, 2014 (led by DHS)
 - iv. One continuing project of significant importance is coordinating state agencies (via the Hawaii Health IT Committee and other actions) for the planning, building, and advancing the non-profit state-designated Hawaii Health Information Exchange (HHIE).
 - v. Other continuing efforts include coordination of telehealth planning among agencies and stakeholders.
- Information Assurance and Privacy
 - i. The State has a fully integrated Security Operations Center (SOC) and Computer Security Incident Response Center (CSIRC) to:
 - ii. Provide uninterrupted security services while improving security incident response times,
 - iii. Reduce security threats to the State, and
 - iv. Enable quicker, well-coordinated notification to all State Departments regarding security threats or issues.
 - v. The SOC applies ITIL practices and processes including incident, problem, change, configuration management, release management, and security management. Data

mining and digital dashboard capabilities provide instant visibility into the security of the State enterprise. Security incident data mining capability enables the State to analyze and prevent future security incidents. Proactive monitoring of email and data services precludes the release of Personally Identifiable Information (PII) or the loss/leakage of other sensitive data sets which may compromise the State or an individual Department.

- vi. Successfully completed a Cybersecurity proposal through Gartner Consulting (under the authorized SPO Price List Contract) entitled “Assessment of State of Hawaii cyber security readiness against the National Cyber security Framework”.
 - vii. State of Hawaii CyberSecurity Report – The State of Hawaii Cybersecurity Report was completed on August 18, 2014 and was correctly marked Unclassified//For Official Use Only (U//FOUO) due to its sensitive nature with full portion marking of the document (in full compliance with Federal Standards).
 - viii. Conducted a Cyber Hygiene Assessment for the State of Hawaii by the US DHS Cybersecurity Assessment and Technical Services Team (NCATS)
 - ix. Worked with the Federal Government on FirstNet and partnering with the State CIO and with the State Adjutant General in integrating the technical/security elements of public safety with all applicable Hawaii Government, Industry, and Academia members.
- Email, Collaboration and Geospatial
 - i. 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, facsimiles). Online convergence services provide integrated services in a single environment including:
 - ii. 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 as e-mail.

- iii. Developed SharePoint sites to provide Intranet Collaboration and Communication
- iv. Office 365 LYNC which is incorporated into Office 365 provides an integrated solution providing voice, video, and Web collaboration services via robust IP solutions.
- v. Entered into an Enterprise License Agreement with ESRI for Geographical information Systems deployment to an unlimited number of users statewide.

2. One Year (FY2015)

- a. Continue to revitalize critical infrastructure (network, data centers, user computing, security).
- b. Deploy VOIP and CAT6 cable upgrades in all DAGS buildings.
- c. Continue migration to Microsoft Office 365 for Department and Agencies.
- d. Execute acquisition/planning for a primary Data Center facility in Mililani Tech park
- e. Establish true Cloud services with self-service, service catalog and departmental chargebacks
- f. Continue to train staff on new technologies.

3. Two Years

- Consolidated Infrastructure
 - a. Fortify and extend core backbone networks
 - b. Upgrade building cabling to support higher bandwidth workloads
 - c. Provide integrated Voice-over-IP and unified communications services
 - d. Enhance interoperability of microwave, wireless and critical communications systems
 - e. Increase centralized capacity for systems, storage, databases and disaster recovery
 - f. Virtualize servers into the State's Government Private Cloud
 - g. Improve facilities that host our operational environments and mesh our data centers across all islands into a cohesive and centrally manageable resource
- Security and Privacy
 - h. Harden the State's network and data assets against cyber-threats

- i. Continuously monitor and improve the State's security and privacy policies and posture
- j. Expand the reach of the State's Security Operations Center (SOC)
 - i. Provide uninterrupted security services while improving security incident response times
 - ii. Reduce security risks to the State
 - iii. Enable quick, well-coordinated notification to all State departments regarding security threats and issues
 - iv. Provide proactive monitoring of email and data services
- Enterprise Shared Services
 - k. Negotiate enterprise software licensing agreements
 - l. Improve broadband critical infrastructure including plans and designs for landing new transpacific fiber optic cables and deploying gigabit services through the state.
 - m. Implement Centers of Excellence in core areas of importance related to the State's managed IT services portfolio including Email, Directory Services, Geographic Information Systems (GIS), Office Productivity, and Middleware
 - n. Construct primary Data Center facility in Millilani Tech park
- 4. Five Years
 - a. The program will continue to refine objectives that were previously identified and follow-up on unfinished objectives and any new initiatives that may have been identified.

IV. Performance Measures

- A. Customer Satisfaction Measure – Implemented software to facilitate customer feedback, such as web site visitor interactive surveys and analysis on selected web sites. The results will be evaluated and significant areas of concern identified by customers will be addressed.
- B. Program Standard Measure – Monitor and evaluate OIMT's Measures of Effectiveness for delivery of service.
- C. Cost Effectiveness Measure – Annual costs will be monitored and any significant variance in expenditures will be evaluated and corrective measures implemented, as needed.