

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
ANNUAL REPORT ON GOALS, OBJECTIVES AND POLICIES

January 2018

Program ID/Title: AGS-130 / Enterprise Technology Services – Governance and Innovation*

AGS-131 / Enterprise Technology Services – Operations and Infrastructure Maintenance*

**Pursuant to Act 58, SLH 2016, all functions of the programs formerly associated with AGS-130 (ex-Office of Information Management and Technology) and AGS-131 (ex-Information and Communication Services Division) are consolidated within the new Office of Enterprise Technology Services as led by the Chief Information Officer, effective July 2, 2016.*

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I. Goals

Identify, prioritize and advance programs and projects with the greatest potential to increase efficiency, reduce waste, and improve transparency and accountability in State of Hawai‘i government.

Provide efficient, effective and available information technology (IT) enterprise services and support in the areas of data center, cybersecurity, computing (mainframe and open systems), telecommunications, application development, and web-based services for the purpose of assisting State government agencies in fulfilling their current and future business mission and objectives.

II. Objectives and Policies

Program objectives are arranged by branch under proposed organizational structure:

Production Services Branch — Schedule, execute and monitor production jobs for State departments and agencies, as well as monitor the State networks and maintain the operation of the State data center.

Systems Services Branch — Provide systems administration support of the IBM Mainframe, enterprise UNIX, enterprise backup and restore, and disaster recovery.

Technology Support Services Branch — Provide support, maintenance and development of hardware, software and infrastructure for on-premise and Cloud applications.

Client Services Branch — Provide systems development, enhancement, maintenance, technical support, and consultant services for State departments and agencies to meet their business objectives.

Enterprise Systems Branch — Provide ongoing operational management support for enterprise systems (e.g., enterprise payroll and human resources systems).

Network Branch — Provide statewide telecommunication services (e.g., network, radio and telephone) to the executive, legislative, and judicial branches of State government, as well as telecommunications interfaces to the county governments.

Security Branch — Manage the statewide cybersecurity program to secure and protect electronic assets and data stored on State computer systems or transported through the State's networks.

Enterprise Architect Branch — Develop, implement and manage statewide IT governance; develop, implement and manage the State IT strategic plans; and develop and implement statewide technology standards as part of the IT Governance Office.

Program Management Branch — Provide program management development support for enterprise technology programs and projects (e.g., enterprise payroll).

III. Action Plan with Timetable

Past Year Accomplishments

Production Services Branch — Effectively managed production jobs for State departments and agencies, monitored the State networks, and maintained the operation of the State data center.

Systems Services Branch — Maintained IBM Mainframe availability at 99.908 percent, and rolled out of a Production Data Sharing System.

Technology Support Services Branch — Completed rollout of Microsoft Office 365 for most executive branch departments, hardened the State's Active Directory infrastructure, researched and implemented the new web platform for the State, increased adoption of Adobe Sign (electronic signature), and developed and supported the secure infrastructure of the Office of Elections.

Client Services Branch — Worked with the Department of Accounting and General Services (DAGS), Department of Human Resources Development (DHRD), and partner Hawai‘i Information Consortium (HIC) to collect, process, and transmit 2016 Affordable Care Act information for 16,702 employees to the Internal Revenue Service; successful completion of this federal requirement prevented the State from incurring a maximum penalty of \$3 million. Also actively supported the inaugural Hawai‘i Annual Code Challenge in partnership with the Hawai‘i Technology Development Corporation, nonprofit Hawai‘i Open Data, and DevLeague to engage the local tech community in government modernization and expose individuals within Hawai‘i’s IT workforce to State career opportunities.

Enterprise Systems Branch — Migrated the existing executive branch Human Resource Management System (HRMS), maintained and operated by DHRD, to primary and secondary Cloud-enabled data centers hosted by project partner CherryRoad Technologies.

Network Branch — Added network redundancy to Hawai‘i Emergency Management Agency (HI-EMA) statewide network to support both HI-EMA and O‘ahu INET users, performed network topology changes to increase the reliability of the State’s network, established a dedicated connection (express route) to the Microsoft Azure Cloud, and provided a high-speed fiber optic connection to the ‘Ewa District Court. Also, established new statewide price list through the State Procurement Office for Centrex Telephone and Cabling Services, and consolidated and significantly increased network bandwidth (200-fold) for tenants of the Kona State Office Building and the Molokai State Office Building.

Security Branch — Performed a proactive incident response engagement to search for signs of advanced malware not typically found by commodity anti-virus or intrusion detection system technologies.

Enterprise Architect Branch — Refined mandatory governance process to ensure success for state executive branch IT programs and projects, and (in accordance with new authority provided by Act 58 of 2016) initiated work with departments to establish multi-year IT “roadmaps.”

Program Management Branch — As part of DAGS Accounting Division’s Enterprise Payroll and Time & Attendance Modernization (HawaiiPay) project, accomplished successful Go-Live transition for the new executive branch HRMS to the CherryRoad Technologies-managed, Cloud-enabled services environment.

One Year

Production Services Branch — Maintain effective and efficient day-to-day operations of production job execution and monitoring of the State network and data center.

Systems Services Branch — Conduct disaster recovery testing for the IBM Mainframe and reduce legacy equipment (non-mainframe).

Technology Support Services Branch — Implement the next phase of ETS-managed local private Cloud service (Hawai'i Government Private Cloud), increase adoption of the State's new web platform, integrate artificial intelligence (AI) technology into existing and new applications, and further increase adoption of Office 365 and Adobe Sign.

Client Services Branch — Improve the efficiency of State government by converting hard-copy paper reports to electronic documents, which will reduce storage requirements, facilitate sharing of information, and reduce paper use. Also create or participate in pilot projects and proof of concepts to gain experience in new technologies and determine potential applicability within the State.

Enterprise Systems Branch — Implement successful PeopleSoft Payroll Go-Live for Group 1 (DAGS and DHRD), as part of the Payroll Phase of DAGS Accounting Division's HawaiiPay project.

Network Branch — Improve the State's telecommunications networks, including: improving network speeds; adding new network locations; replacing legacy network equipment to maintain hardware and software support and to retain security protections; maintaining aging radio facilities and infrastructure; and improving network design for availability and reliability purposes.

Security Branch — Develop, issue and review statewide cybersecurity policies and standards, and add new cybersecurity staff.

Enterprise Architect Branch — Achieve full participation among executive branch departments in the IT roadmapping process as part of development of the state's overall IT strategic plans. Also support successful implementation of the Department of Taxation's Tax System Modernization (TSM) program, in accordance with the naming of the CIO as executive sponsor of TSM in July 2017.

Program Management Branch — Complete payroll Go-Live deployment for Group 1 of DAGS Accounting Division's HawaiiPay project, and promote

enterprise standardization of policies, processes and functionality in support of all jurisdictions.

Two Years

Production Services Branch — Maintain effective and efficient day-to-day operations of production job execution and monitoring of the State network.

Systems Services Branch — Achieve full operating capability of disaster recovery site, and replace legacy equipment (non-mainframe) and applications.

Technology Support Services Branch — Complete Department of Taxation migration to Office 365, maintain and further enhance the State's Active Directory infrastructure, further implement the new web platform for the State, and further increased adoption of Adobe Sign.

Client Services Branch — Expedite the development of quality application systems by utilizing new/improved application development platforms and tools. Also support Hawai'i Annual Code Challenge program, which results in a number of proofs-of-concept proceeding beyond development to implementation and launch.

Enterprise Systems Branch — Implement successful PeopleSoft Payroll Go-Lives for remaining jurisdictions, departments and agencies, and initiate the Time & Attendance Phase of DAGS Accounting Division's HawaiiPay project.

Network Branch — Plan and begin the deployment of an enterprise Wi-Fi network and continuously improve the State's telecommunications networks.

Security Branch — Modernize aging cybersecurity infrastructure to better defend against an advanced adversary.

Enterprise Architect Branch — Publish statewide IT roadmaps to inform approval of spending requests and implement process for such approvals. Also support successful implementation of the Department of Taxation's Tax System Modernization (TSM) program, specifically "Rollout 3," which enhances online services for Corporate Income, Franchise, Public Service Company, and Withholding taxpayers, and "Rollout 4," which will begin to address individual income filing and other areas.

Program Management Branch — Complete payroll Go-Live deployments for all groups and launch phase two of the HawaiiPay project: time & attendance.

Five Years

Production Services Branch — Maintain effective and efficient day-to-day operations of production job execution and monitoring of the State network.

Systems Services Branch — Leverage mainframe Integrated Facility for Linux (IFL) engines and new technologies such as OpenStack, Hadoop and Containers, and modernize the Z/OS (legacy) applications for re-platform.

Technology Support Services Branch — Assist executive branch departments in maximizing Office 365, Adobe Sign, and the new State web platform, and maintain and further enhance the State’s Active Directory infrastructure.

Client Services Branch — Evaluate and refine technologies, processes, and services. Evaluate, refine and support the Hawai‘i Annual Code Challenge program toward taking resulting proofs-of-concept beyond development to implementation and launch.

Enterprise Systems Branch — Implement successful systems in support of phase two deployment of DAGS Accounting Division’s HawaiiPay project.

Network Branch — Unify statewide Wi-Fi deployment and improve the State’s telecommunications networks.

Security Branch — Develop and expand expertise of in-house cybersecurity team.

Enterprise Architect Branch — Maintain statewide IT roadmaps and demonstrate effectiveness of IT review and approval process.

Program Management Branch — Complete phase two deployment of DAGS Accounting Division’s HawaiiPay project and formalize enterprise support operations for enterprise payroll and time and attendance.

IV. Performance Measures

Customer Satisfaction measure (if applicable)

Production jobs executing as scheduled.

Number of new and/or improved application services implemented, adopted and used.

Number of requests completed within timeframe.

Time to respond to help desk and assistance center inquiries.

Average incident response time for system and network outages.

Average time to review and approve IT spending request.

Program Standard measure

Timely reporting of network outages to the appropriate staff, ensuring the State data center is operational.

Ease of use and delivery of modern flexibility.

Number of connections completed and number of sites supported by enterprise Wi-Fi.

Collection of IT roadmaps from all applicable departments and continuous refinement.

Cost Effectiveness measure

Return on value and total cost of ownership.

Alignment to IT roadmap and Operational Expenditure Plan.

Cost-efficiencies achieved through IT governance and roadmapping processes.