

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

January 2019

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

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

**Pursuant to HRS 27-43, 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 administrative and operational support for the IBM Mainframe (Z) System, Enterprise backup and restore, Enterprise UNIX (P), mainframe (Z) user access, FTI compliance, 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., data network, radio network, and telephone systems) for daily business operations of the State of Hawaii’s executive, legislative, and judicial branches, including telecommunications interfaces to federal and county governments; provide land mobile radio communications for public safety entities and radio microwave network connection interfaces to other county and federal agencies for first responder and emergency communications; provide technical support on voice and telephone systems to State government entities.

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 and implement statewide technology policies, guidance, and standards; provide Departmental guidance for Business and IT decisions that supports the State’s strategic plan and investments and improves the ability to deliver responsive, cost-effective government functions and services.

Program Management Branch — Provide management, business consulting services, and business applications support to agencies to effectively develop and maintain new technology applications and improve service delivery through effective integration of technology solutions; 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 — Continued to provide high availability to the IBM Mainframe (Z System), enterprise UNIX, and enterprise backup and restore environments. Continued to upgrade operating system and middleware to come into compliance with the IRS Publication 1075. For disaster recovery, the mainframe “D” copy services are fully functional, a prerequisite for non-disruptive testing of the mainframe (Z) production environment. Forensic analysis of the chargeback process was conducted with consultants alongside members of our Systems personnel and ETS fiscal with new procedures to make the process more efficient and streamlined.

Technology Support Services Branch — Continued support for rollout and adoption of Microsoft Office 365 for the executive branch departments, hardened the State’s Active Directory infrastructure, researched and implemented the new web platform for the State, support of Hawaii Payroll project, procurement and delivery of new ETS-managed local private Cloud service (Hawai‘i Government Private Cloud) infrastructure and alternate storage solutions, increased adoption of Adobe Sign (electronic signature), researched and tested web security services and Content Delivery Network features, and developed and supported the secure infrastructure of the Office of Elections. Provided technical support to Hawaii County in their volcano eruption relief efforts.

Client Services Branch — Actively supported the Hawai‘i Annual Code Challenge in partnership with the Hawai‘i Technology Development Corporation, and Hawai‘i Pacific University to engage the local tech community in government modernization and expose individuals within Hawai‘i’s IT workforce to State career opportunities. Completed the Paper Reduction Project (PRP) which resulted in substantial paper savings by computer applications on the State’s IBM mainframe computer. Implemented Software AG’s N2O change management software and procedures for the Department of Labor and Industrial Relations, Unemployment Insurance Division’s computer applications.

Enterprise Systems Branch — Ongoing maintenance and support of the Executive Branch Human Resources Management System (HRMS). Migrated the state mainframe payroll to Hawaii Information Portal (HIP) Payroll system for over 60,000 state employees. Enrolled thousands of state employees for direct deposit through online employee self-service. Built and maintained interfaces to all agency HR and Payroll data sources.

Network Branch — Added fourteen new connections onto the State’s Institutional NETwork (INET) providing high speed connectivity to sites on the Big Island, Kauai, Lanai, and Oahu. Established additional redundancy between the State’s data centers to support higher availability, expanded data center network infrastructure to support new compute and storage systems, and completed redundant host circuit configurations to support redundancy for remote sites back to Oahu. Performed network topology changes to increase the reliability of the State’s radio systems. Added Hawaii Wireless Interoperability Network (HIWIN) Land Mobile Radio (LMR) coverage/connectivity to Kona Airport, West side Oahu, North shore Oahu, and West side Kauai. Added access to HIWIN LMR through cell phone for administrators. Established new statewide price list through the State Procurement Office for long distance telephone services (inter-island, mainland and international).

Security Branch — Issued initial statewide cybersecurity policies and standards and hired additional cybersecurity staff.

Enterprise Architect Branch — Achieved full participation among executive branch departments in the IT road mapping process as part of development of the state’s overall IT strategic plans. Supported 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 — As part of DAGS Accounting Division’s Enterprise Payroll and Time & Attendance Modernization (HawaiiPay) project, accomplished successful payroll Go-Live implementation for Groups 1 (DAGS and DHRD) and 2 (all other remaining jurisdictions, departments, and agencies – except UH and DOE) to the new 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 — With D-Copy Services now operational at the disaster recovery site, we can now commence non-disruptive testing of the production volumes. A new test logical partition is being put up using the latest versions of COBOL, CICS, Software AG ADABAS/Natural, and DB2. This is being done to move these upgrade projects faster. Implementation of a PC based interface into the chargeback system to allow non-technical personnel to be able to retrieve their own reports and create invoices. The enterprise backup and restore system to introduce a new storage pool structure called container pools and the use of Cloud Object Storage to eliminate the need for tape and the ability to vault archive information to a S3 provider.

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. Initiate Department of Taxation migration to Office 365. Implement additional security and performance features for the Office of Elections web infrastructure. Setup and deploy a web accessibility tool to provide monitoring and reporting capabilities for our state website's accessibility compliance. Research and implement a social media management and listening tool and a multi-channel communication and emergency notification suite.

Client Services Branch — Continue to 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. Create or participate in pilot projects and proof of concepts to gain experience in new technologies and determine potential applicability within the State. Support the 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-Live for Group 3 (UH and DOE), as part of the Payroll Phase of DAGS Accounting Division's HawaiiPay project.

Network Branch — Improve the State’s telecommunications networks by adding high speed network connectivity to locations on all islands, increase network redundancy to provide maximum availability for customers, assist departments with increasing visibility of departmental networks, establish a public cloud exchange for supporting public cloud services, and improve network design for availability and reliability purposes. Double HIWIN LMR system capacity, upgrade radio microwave backhaul to Ethernet standard format which will facilitate increased connectivity and redundant routes, and maintain aging radio facilities and infrastructure.

Security Branch — Refine statewide cybersecurity policies and standards, increase cybersecurity awareness and education, and assess department capabilities to be resilient against cybersecurity attacks.

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. Publish RFP and execute new contract the Statewide Internet Portal (web applications) provider.

Program Management Branch — Complete payroll Go-Live deployments for all groups (to include UH and DOE) and launch phase two of the HawaiiPay project, time & attendance. Identify opportunities for statewide enterprise licensing and shared products and services.

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 — Continue to strive for a fully operational disaster recovery process with departmental testing. Although I wanted this done this fiscal year, a change to the overall architecture of the Mainframe Logical Partitions need to be done to implement “best practices.” Consolidation of those current logical partitions need to be done in order for the State to take advantage of the Cloud Offerings available for the IBM Mainframe (Z) environment. A good roadmap for Mainframe (Z) application modernization needs to be done.

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 increase 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 proof of concept proceeding beyond development to implementation and launch.

Enterprise Systems Branch — Ongoing updates for post go-live deployment of HIP Payroll for all departments and agencies and initiate the Time & Attendance Phase of DAGS Accounting Division's HawaiiPay project.

Network Branch — Continue to install new high-speed network connections, improve network redundancy, and provide guidance for the deployment of an enterprise Wi-Fi network. For the radio microwave and LMR networks, enact new documented partnerships with Hawaii County, Maui County, US Marine Corps, and UH.

Security Branch — Prioritize cybersecurity initiatives based on risk and impact. Increase collaboration with federal and local infrastructure partners to provide whole of community approach to cybersecurity.

Enterprise Architect Branch — Publish initial statewide IT enterprise architecture framework. Maintain statewide IT roadmaps and demonstrate effectiveness of IT review and approval process. Provide enterprise architecture assistance to Departmental initiatives such as the DHS technology modernization and AGS KEIKI modernization. Provide oversight and management over the new contract for the Statewide Internet Portal provider.

Program Management Branch — Complete phase two time and attendance deployment of DAGS Accounting Division's HawaiiPay project and formalize enterprise support operations for enterprise payroll and time and attendance. Implement statewide licensing agreements and require procurement and adoption of shared products and services.

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 — Continuation of the Mainframe Application Modernization either using the “rip and replace” or redirection technique. The

goal is to get things off of Z/OS (MVS), use more open technologies, and utilize technologies that are being taught in the community colleges and universities so staffing would not be an issue moving forward. Start collapsing the multiple platforms we administer in favor of a single platform type to handle the enterprise applications. Looking more toward Cloud and shifting the financial burden from a CAPEX model toward OPEX.

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. Continue implementing enhancements to the ETS-managed local private Cloud service (Hawai‘i Government Private Cloud).

Client Services Branch — Evaluate and refine technologies, processes, and services.

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

Network Branch — Improve the State’s telecommunications networks through the addition of high-speed connectivity and network redundancy. For radio microwave and LMR networks, enact projects to affordably provide entire State with radio coverage.

Security Branch — Develop pipeline to onboard workforce earlier in their career and expand expertise of in-house cybersecurity team.

Enterprise Architect Branch — Refine statewide IT enterprise architecture framework. Maintain statewide IT roadmaps and demonstrate effectiveness of IT review and approval process. Provide enterprise architecture assistance to Departmental initiatives such as the DHS technology modernization and AGS KEIKI modernization. Provide oversight and management over the new contract for the Statewide Internet Portal provider.

Program Management Branch — Formalize enterprise support operations for enterprise payroll and time and attendance. Identify other opportunities for enterprise application support for the Departments; initiate program management support for such opportunities. Continue to implement statewide licensing agreements and require procurement and adoption of shared products and services.

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.