

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

January 2023

Program ID/Title: 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) were consolidated within the new Office of Enterprise Technology Services (OETS) as led by the Chief Information Officer, effective July 2, 2016.*

Since FY22, the OETS budget was consolidated under AGS131, which included activities, positions, and funds from AGS130.

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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 programming and administration, database management and operational support for the enterprise shared services computing platforms such as the mainframe system, power system, backup and restore system and managed file transfer system as well as maintaining compliance to audit standards for these platforms set by the IRS, SSA and State Auditor.

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

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

Enterprise Systems Branch — Provide ongoing operational maintenance, business process management support, technical support, and enhancement and applications development for the following enterprise systems – HIP Enterprise Payroll, Human Resources, and Time and Leave applications.

Network Branch — Provide statewide telecommunication services (e.g., data network, radio network, and telephone systems) for daily business operations of the State of Hawai‘i’s executive, legislative, and judicial branches, including telecommunications interfaces to county and federal governments; provide land mobile radio communications for public safety entities and radio microwave network connection interfaces to 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 support the State’s strategic plan and investments and improve the ability to deliver responsive, cost-effective government functions and services.

Program Management Branch — Provide project management, project consulting services, and training 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.

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 — Implemented the Mainframe Managed Hosting Services project by setting up the required infrastructure, i.e., compute, storage, network, and software at the off-premised and off-island location in the mainland. The Mainframe Host Systems are successfully migrated, running major departmental applications such as welfare administration, unemployment and disability compensation, child support and financial and asset management. Data replication is now being done at the disaster recovery site in the mainland. Deployed a multi-site implementation of compute (Power System), storage, network, and software systems hosting departmental applications that include public safety, business registration and professional certifications, digital archiving, and enterprise backup and restore with the complementary disaster recovery infrastructure at the secondary data center.

Technology Support Services Branch — Provided application and development support for the State of Hawai'i Safe Travels program and Attorney General's Quarantine Exemption program. Facilitated the archival efforts of the Hawai'i Safe Travels application and data after the end of program in March 2022. Supported the Office of Elections' cloud and web infrastructure for the 2022 Primary and General election. Implemented a language access bar within the statewide web template to assist agencies with presenting multi-language access information to the public. Continued enhancements to the statewide website theme and the securing and maintenance of the web infrastructure. Performed a major upgrade for the state's electronic signature platform, which allowed for automated onboarding and offboarding of users, and proper license management. Began servicing two additional applications through the Azure AD Business-to-Consumer (B2C) platform for the Department of Human Services and Department of Labor. Designed and implemented Dynamics Fraud Protection (DFP) to further secure B2C sign-ins. Migrated all Salesforce orgs across the Executive Branch (five in total) to leverage Azure AD (AAD) Single Sign-On (SSO). Performed O365 Security Assessment to address configuration gaps in SOH O365 tenant. Configured nearly 20 additional AAD SSO connections to department managed services – notably DHRD Learning Management System; bringing the total of SSO connected services to over 200. Coordinated Microsoft Azure training and certifications across the Executive Branch.

Client Services Branch — The branch assisted the Department of Labor and Industrial Relations (DLIR), Unemployment Insurance (UI) Division with the implementation of the following programs: 1) Federal Pandemic Unemployment Compensation (FPUC), 2) Pandemic Emergency Unemployment Compensation

(PEUC), 3) Low Earnings Act (LWA), 4) Multi Earner Unemployment Compensation (MEUC), 5) Pandemic Unemployment Act (PUA extension), 6) Extended Benefits (EB20) and 7) American Rescue Plan Act (ARPA). In addition, for DLIR UI, the branch aided with data and business analysis, and data conversion for the new Hawai'i Unemployment Modernization (HUIMod) System. For the Campaign Spending Commission (CSC), the branch implemented a re-write of the Candidate Filing System (CFS), Candidate Filing Public System (CFSPublic) and the CSC Mass Email System (CSCEmail). The applications were re-written using an updated platform that will provide better support and security going forward. The branch also provided support for the new Salesforce application of the Department of Commerce and Consumer Affairs (DCCA), Professional and Vocational Licensing Division (PVL). Support included assistance with preparations for the June 2021 renewal of nurses, private detectives, guards, and plumbers.

Enterprise Systems Branch — Ongoing maintenance and support of the Enterprise Human Resources Management System (HRMS) and Payroll systems, also known as Hawai'i Information Portal (HIP). Built, maintained, and supported interfaces to all agency HR, Payroll, and financial data sources. Successfully implemented Time & Leave applications for the Executive and non-Executive branches. Implemented HR in HIP for the State Legislature, Office of Hawaiian Affairs, and the Stadium Authority.

Network Branch — Migrated primary internet connection off old provider infrastructure to reduce costs and enhance capacity. Increased on island network peering to content providers to improve performance and reduce reliance on commercial internet connections. Increased the reliability of the State's radio systems by performing network topology changes. Added Hawai'i Wireless Interoperability Network (HIWIN) Land Mobile Radio (LMR) coverage/connectivity to Kona Judiciary. Project doubling HIWIN LMR system capacity nearly complete. Executed Memorandum of Agreement (MOA) with DOT Airports to serve their radio communication needs using the HIWIN system. Maintained radio facilities and infrastructure. Upgraded radio microwave backhaul to Ethernet standard format, which will facilitate increased connectivity and redundant routes.

Security Branch — In collaboration with the State Office of Homeland Security, published the enterprise wide Cyber Incident Response Plan and statewide Cyber Disruption Response Plan. Coordinated a Risk and Vulnerability Assessment with the U.S. Coast Guard. Began quarterly cyber security reviews of Executive Branch departments. Continued to disseminate standards, guidance, and security awareness training to increase department capabilities to be more resilient against cybersecurity attacks.

Enterprise Architect Branch — Initiated a program for structuring the statutory requirement for all departments to establish their multi-year information technology strategic and tactical plans. Started IT planning effort with some of the departments. Continued refinement of the statewide IT portfolio data model by enhancing the data model for budget programs, business capabilities, data objects, and IT projects. Continued data collection for the statewide IT portfolio in the monthly IT roadmap meetings. Acquired a module for the state IT portfolio management tool for business transformation and started the effort of modeling the statewide digital transformation. Established a guidance matrix for the state's executive branch enterprise IT projects, structured by readiness reviews by each phase in this process. Established specific guidance for large IT procurement solicitations in the form an IT RFP checklist. Provided solution architecture and technical architecture guidance for multiple departments in their large-scale IT procurements. As part of this wide technology consultation, particular emphasis was put on the state's IT strategic priority for implementing dynamic and sustainable IT operations. Continued refining the state's IT portfolio strategy refinement by coordinating the activities of the IT Portfolio Working Group. Continued refining the state's IT portfolio strategy refinement by coordinating the activities of the Data Governance Working Group.

Program Management Branch — On-time and on-budget completion of DAGS Accounting Division's Enterprise Payroll (Phase I) and Time and Attendance Modernization (Phase II) projects. The Hawai'i Information Portal (HIP) includes payroll services for 60,000 State employees and electronic time and leave features for 14,000 Executive Branch, Legislative Branch, and Office of Hawaiian Affairs employees.

Signed a contract with a systems integrator for RFP-ERP-2020, the Enterprise Financial System (EFS) project. The original equipment manufacturer (OEM) software vendor is SAP. The system integrator is invenioLSI. The project was started in November 2021 and is progressing towards a production implementation in late 2023/early 2024 with annual upgrades planned thereafter.

The statewide project management office, called Office of Program Transformation, was established, and hiring is under way. The Office of Program Transformation will provide leadership to the executive branch project teams with the goal to establish consistent practices for IT project management and project expertise throughout the Executive Branch.

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 — Implement various projects such as business continuity plan, systems programming and batch processing tools upgrade, workload management, process management and documentation that will sustain and improve uptime availability, operational capability, security and regulatory compliance of the enterprise shared services computing platforms.

Technology Support Services Branch — Increase adoption amongst departments of O365 (particularly Teams, license management, Unified Security Risk and Quality Assessments). Continue hardening the State's Active Directory infrastructure. Assist other departments and offices with their requests to implement Teams Calling and build additional resilience into the calling infrastructure. Build out the mobile device management platform across several departments. Research hybrid solutions and managed service options for ETS-managed local private Cloud service (Hawai'i Government Private Cloud). Begin hardware refresh planning for the Hawai'i Government Private Cloud. Continue working with the departments to expand a citizen and B2C identity solution and evaluate fraud protection and identity-proofing services. Implement a state web site template redesign and full HTTPS for all hosted websites. Publish statewide accessibility standards for electronic information technology. Improve IT service management processes and tooling for the ETS service desk.

Client Services Branch — Continue to reprogram the Non-candidate portion of the Campaign Spending Commission's systems and assist the DLIR-UI in the replacement of their mainframe systems. 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 — Maintain and support the Enterprise HR, Payroll, and Time and Leave systems including interfaces, reporting, security, and transaction processing. Improve on current processes to improve transaction efficiency and data use. Assist with integrations to/from HIP with the new Enterprise Financial System.

Network Branch — Increase the number of sites with broadband connectivity, provide network redundancy between agencies and the State's network, assist with the deployment of enterprise Wi-Fi, and expand the use of network peering at the on island internet exchange. Begin hardware replacements of end of support network and security equipment on the State network. Expand radio microwave and LMR networks by adding new sites at no additional site development costs

through the use of MOAs. Assist DOT Airports and other users with transitioning to HIWIN for interoperable communications. Maintain radio facilities and infrastructure.

Security Branch — Prioritize asset visibility and vulnerability detection of State assets. Expand solutions to effectively recommend and validate secure configurations and operations. Provide broad and effective security software to protect information systems against compromise and misuse.

Enterprise Architect Branch — Publish initial statewide IT enterprise architecture framework. Maintain and manage statewide IT enterprise applications portfolio and roadmaps; demonstrate effectiveness of IT planning, review, approval, procurement, and implementation processes. Provide enterprise architecture assistance to Departmental initiatives such as the DHS technology modernization, DLIR UI Modernization, DCD eCMS Modernization, and AGS KEIKI modernization. Continue planning and strategy refinement for procurement of new contract for the Statewide Internet Portal provider.

Program Management Branch — Plan for permanent support of the Hawai'i Information Portal (HIP) with a proposal for an ERP Service Center. Conduct continuous user-driven system enhancements. Procure a hosting and maintenance and operations services contract to ensure business continuity for HR and payroll services.

Execute design, development and implement activities for an Enterprise Financial System.

Staff the Office of Program Transformation with experts in project management, create an on-line directory of project best practices, and launch training and project consultant services for the Executive Branch.

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 — Provide technical assistance to the departments in executing transition plans to move off applications from the Mainframe Systems. Implement the creation and update of policies and procedures for the mainframe environment in compliance with regulatory requirements. Prepare action plan for staff re-tooling and functional reassignments

Technology Support Services Branch — Implement the next phase including the standing up of a hybrid cloud environment and begin planning for potential

datacenter relocation of the Hawai'i Government Private Cloud. Maintain and further enhance the State's Active Directory infrastructure and citizen identity platform. Assist executive branch departments in maximizing and securing O365 and other Microsoft products used across the state. Continue digitalization efforts, and further implement the new web platform for the State.

Client Services Branch — Expedite the development of quality application systems by utilizing new/improved application development platforms and tools.

Enterprise Systems Branch — Ongoing maintenance and operations including system and application upgrades for HIP Enterprise Payroll, Human Resources, and Time and Leave applications for all departments and agencies.

Network Branch — Continue to increase the number of sites with broadband connectivity, increase network redundancy between agencies and the State network, and continue with assisting with the deployment of enterprise Wi-Fi. Continue with the critical hardware upgrades of the network and security equipment on the State network. For the radio microwave and LMR networks, revise existing partnership agreements or develop new partnerships for mutual benefit with entities such as the County of Hawai'i, County of Maui, University of Hawai'i, and the U.S. Marine Corps. Transition DOT Highways onto HIWIN to provide their first responders with improved response times during natural disasters utilizing HIWIN's ubiquitous coverage on Oahu and interoperable communications between various first responder agencies. Establish microwave radio data connectivity to State Office Buildings to utilize during emergency situations when terrestrial connections or other communication links may become inoperable.

Security Branch — Prioritize cybersecurity initiatives based on risk and impact. Increase collaboration with federal, local, and state infrastructure partners to provide whole of community approach to cybersecurity. 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. Refine statewide IT enterprise applications portfolio and roadmaps; continue to demonstrate effectiveness of IT planning, review, approval, procurement, and implementation processes. Continue to provide enterprise architecture assistance to Departmental initiatives such as the DHS technology modernization, DLIR UI Modernization, DCD eCMS Modernization, and AGS KEIKI modernization. Prepare for release of Request for Proposal for new contract for the Statewide Internet Portal provider.

Program Management Branch — Establish a first for the Executive Branch ERP Service Center for the Hawai‘i Information Portal (HIP) system and plan for the expansion of services for the future Enterprise Financial System implementation.

Complete the first two phases of the Enterprise Financial System – Core and Expansion.

Grow the portfolio of statewide projects that receive professional consulting and training. Demonstrate a decrease in risk and increase in successful outcomes.

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 — Continue to sustain the operation of the Mainframe System shared services and gradually decrease the costs of operation until all the applications are migrated to new computing platforms. Develop and implement a plan for the Enterprise Power System and Backup and Restore infrastructure in anticipation of the completion of current lease agreement.

Technology Support Services Branch — Assist executive branch departments in maximizing Office 365, electronic signatures, and the new State web platform, and maintain and further enhance the State’s Active Directory and citizen identity infrastructure. Continue implementing enhancements to the Hawai‘i Government Private Cloud.

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

Enterprise Systems Branch — Ongoing maintenance and operations for HIP Enterprise Payroll, Human Resources, and Time and Leave applications for all departments and agencies. Implement successful system integrations in support of DAGS Accounting Division’s HawaiiPay project and the Enterprise Financial System 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 the entire State with interoperable radio coverage.

Security Branch — Reduce risk to the State’s infrastructure and data through modernization efforts to enable safe and secure digital services and managing the decline of legacy systems.

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. Provide oversight and management over the new contract for the Statewide Internet Portal provider.

Program Management Branch — Explore the state’s needs for additional ERP systems, assess the maturity of existing ERP systems, and stabilize the costs for support and on-going operations and maintenance. Fully integrate project and program management methodologies with the State’s IT roadmaps and strategic plans. Assess the need for on-going professional consulting services contracts with the goal of in-sourcing consulting using staff expertise.

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 road mapping processes.