Information Technology Steering Committee (ITSC) Meeting
December 11, 2025, 1:00 p.m. to 2:00 p.m.
1151 Punchbowl Street, Conference Room 410, Honolulu, Hawaii 96813

This meeting will be conducted remotely. Members of the public may participate via interactive conference technology (ICT) or in person at the physical meeting location indicated above.

Click here to join the meeting
Meeting ID: 293 684 388 957
Passcode: WasJQQ

Or call in (audio only) +1 808-829-4853,,113551988#
Phone Conference ID: 113 551 988#

AGENDA

I. Call to Order; Roll Call

II. Review and Approval of the November 20, 2025, Meeting Minutes

III. Public Testimony

Individuals who are unable to provide testimony at this time will be allowed an opportunity to testify when specific agenda items are called.

In accordance with Hawaii Revised Statutes, Section 92-3, and the Committee's prior vote on August 28, 2025, testimony will be limited to three minutes per speaker per agenda item, at the discretion of the Chair to modify this limit at any given meeting.

Individuals may provide oral testimony at the meeting or may submit written testimony in advance of the meeting via e-mail to ets@hawaii.gov, or via mail addressed to 1151 Punchbowl Street, B-10, Honolulu, HI, 96813, Subject: *ITSC Testimony.*

IV. ETS CIO Annual Report Update

a. In accordance with Hawaii Revised Statutes, Section 27-43, the Office of Enterprise Technology Services (ETS) and the Chief Information Officer (CIO), an annual report must be presented to the IT Steering Committee (ITSC), and to the Legislature no later than twenty days prior to the start of each regular legislative session. This report shall comprise of updates on ETS activities and programs, progress of ITSC, status of the hawaii.gov mobile application, and detailed expenditures.

V. Good of the Order

a. Announcements

b. Next Meeting: February 26, 2025.

VI. Adjournment

This interactive conference technology meeting will allow participants to enable live closed captioning during the meeting.

The ITSC meeting packet will be available at https://ets.hawaii.gov/it-steering-committee/.

Auxiliary Aid or Accommodation Due to a Disability
If you require an auxiliary aid/service or other accommodation due to a disability, contact Joanna Lee at (808) 586-6000 or email ets@hawaii.gov as soon as possible. Requests made as early as possible have a greater likelihood of being fulfilled. Upon request, this notice is available in alternate/accessible formats.

Information Technology Steering Committee (ITSC)
November 20, 2025, Meeting minutes
Remote Meeting via Interactive Conference Technology
1151 Punchbowl Street, Conference Rm. 410, Honolulu, HI

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Members Present
Christine Sakuda, Chair, CIO, Office of Enterprise Technology Services (ETS)
Miki Hardisty, ʻŌlelo
Bill Kumagai, Transform Hawaii Government (THG)
Benson Choo, Finance Factors
Joel Kumabe, Ohana Pacific Health
Arnold Kishi, Center for Internet Security, MS-ISAC
Mai Nguyen Van, Judiciary
Amy Peckinpaugh, Hawaii State Department of Education
Eugene Chang, IEEE Computer Society, Hawaii Chapter
Senator Sharon Moriwaki, State Legislature

Members Excused
Representative Greggor Ilagan, State Legislature
Marcus Yano, CBTS Hawaiian Telcom
Garret Yoshimi, University of Hawaii

Staff
ETS: Joanna Lee, Javzandulam Azuma, Lisa Huang, Catherine Arellano-Alcotas, Jussi Sipola, Juha Kauhanen, Tom Ku, Vincent Hoang, Lenora Fisher, Joseph Lee, Glenn Dela Cruz, Kelli Wang
Candace Park, Deputy Attorney General
CSEA: Brandon Flores, Lynette Lau, Garrett Murayama, Arthur Minagawa
Allen Nguyen
Tricia Harris
Rylee Chapman
Kumar Ajith Puthan
Venus Delos Santos

I. Call to Order; Roll Call

The meeting was called to order at 3:03 p.m. Roll call was taken, and quorum was established.

II. IT Steering Committee Members

Chair Sakuda announced the two new committee members: Miki Hardisty and Representative Greggor Ilagan.

Member Hardisty, appointed by the Speaker of the House of Representatives, recently returned to Hawaii. Member Hardisty brings to the committee a background in AI and data science along with thirty years in technology leadership roles.

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Member Ilagan was appointed by the Speaker of the House of Representatives and was the former chair of the House IT Committee. Member Ilagan is recognized for his legislative collaboration with the Office of Enterprise Technology Services.

III. Review and Approval the August 28, 2025, Meeting Minutes

Motion to approve the meeting minutes by member Choo. Members Kumagai and Kumabe seconded the motion. A vote was taken and the motion passed unanimously.

IV. Public Testimony

None.

V. State Enterprise Projects Updates

a. Department of the Attorney General (ATG) Childhood Support Enforcement Agency (CSEA) KEIKI Re-platform Off Mainframe (KROM) Project. This project will modernize the State's automated child support software and systems.

Lynette Lau, CSEA administrator, explained that the KEIKI project is a legacy system that was implemented in 1998. It is the first step to realizing a fully modernized statewide system.

Brandon Flores, CSEA assistant manager, provided an overview of the project:

i. Modernization of the 25-year-old KEIKI child support system;

ii. Migration from mainframe to AWS GovCloud;

iii. Refactoring from Natural to C# and SQL;

iv. UAT began in August 2025; go-live planned for March 2026;

v. Monthly IV&V reports reviewed by federal OCSE;

vi. Strong collaboration with vendors (ProTech, IBM) and internal staff;

vii. Security compliance with IRS Pub 1075 and NIST 800-53;

viii. Cost savings expected post-migration; and

ix. Staff training completed for AWS and new technologies.

Member Hardisty inquired whether penetration testing and threat vector analysis were part of the overall testing strategy, especially given the presence of personally identifiable and financial data. She emphasized the importance of these tests during the migration phase, not just in preparation for the IRS audit. Member Hardisty also

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clarified her concern about real-time security validation during infrastructure migration, not just post-launch or audit preparation.

Garret Murayama, CSEA IT Supervisor, responded to the audit context and compliance question. Child support systems are subject to rigorous IRS audits every three years under IRS Publication 1075, which governs handling of Federal Tax Information (FTI). The system is being built to meet FedRAMP High standards and hosted in AWS GovCloud to comply with IRS requirements (e.g., no offshore support). All systems (mobile app, portals, analytics) are designed for NIST 800-53 compliance, which underpins 1075.

In response to penetration testing and continuous monitoring, guest Moriyama explained that independent third-party penetration testing has been scheduled. The team uses Tenable Nessus, a security scanning tool that continuously monitors AWS environments. Each UAT stack is scanned monthly, and findings are reviewed and remediated with the vendor. Security is treated as an ongoing process, not just a one-time audit prep. After each audit, a Corrective Action Plan (CAP) is implemented and maintained until the next audit.

Chair Sakuda asked for advice that can be given to other departments that are implementing big modernization projects and what do they attribute this study success of the project to.

The CSEA team replied that there are five major attributes:

i. Strong communication and collaboration: daily meetings and open communication channels (e.g., Teams chat) with vendors and internal teams allow for real-time issue resolution along with close coordination with the IV&V vendor helps identify and address potential issues early.

ii. Dedicated and skilled team: the internal team, including developers and line staff, is highly engaged and technically strong. Staff are involved in both their regular duties and user acceptance testing (UAT), demonstrating commitment and adaptability.

iii. Leadership and consistency: leadership plays a key role in maintaining momentum and morale throughout the long project lifecycle while consistent presence and active participation from the state team are essential—projects can't be handed off entirely to vendors.

iv. Proactive problem solving: the team proactively identifies inefficiencies (e.g., costly data extracts) and implements solutions to reduce costs and keep the project on track.

v. Institutional knowledge and ownership: deep understanding of the legacy system and business logic enables the team to guide the modernization effectively and the project is treated as a shared responsibility, not just a vendor-led effort.

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Member Kumagai inquired about the IV&V program and where it has been helpful, where could it be improved to provide more value? Also, what is the status of ETS's efforts to standardize the program.

Guest Murayama shared insights into the program. IV&V has evolved significantly over the years—from just observing and reporting to becoming a true partner in project success. Guest Murayama praised Acuity's approach, noting they proactively help identify and resolve issues rather than just flagging problems. IV&V consultants bring deep project management expertise and serve as an extra set of eyes, which is valuable even if sometimes overwhelming. Guest Murayama continues that there are a few inconsistencies where different IV&V consultants use different methods and criteria. Some evaluate detailed line items; others use broader categories. This inconsistency can make it harder for evaluators to interpret reports.

Both member Kumagai and guest Murayama agreed that standardization—like clearer definitions of "red/yellow/green" status—could improve the program's effectiveness.

Continuing the conversation, member Chang expressed concerns about the need for clearer insight into the effort required to resolve red/yellow issues—how much time and cost is involved.

Guest Murayama explained that the details are in the fine print—specifically, a spreadsheet at the end of the report that lists observations and multiple recommendations per observation. His team actively works to close recommendations as they come in. Currently, there are twelve recommendations, with about five already closed. Some recommendations may remain open until the end of the project, depending on the situation. While the project is fixed-price, resource hours still matter—having enough staff to resolve issues is key.

Chair Sakuda and guest Todd Omura, ETS IT Governance Officer, gave a little background regarding IV&V. ETS is reviewing and evaluating the IV&V process to ensure its meaningful, effective, and how it can be improved not only for internal teams and vendors but also for the public and legislature, since reports are posted online. The goal is to improve consistency across reports; clarity, especially around red and yellow ratings; and guidance for vendors to make reports more actionable and standardized. The challenge is to create a framework that improves consistency without stifling the value and flexibility of the IV&V service.

Member Kishi asked about the federal funders' involvement with the IV&V; are they reviewing the reports and if they identify any issues, what kind of feedback or response have they provided. Guest Flores, responded that the federal funders do review the IV&V reports and actively look for them on the website each month. His team meets quarterly with their OCSC federal counterparts to discuss any questions or concerns such as any issues that have been raised, what actions are being taken, and what progress has been made.

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VI. IT Consolidation Plan Update

a. Provide an update on the progress of the IT Consolidation Plan development and discuss ITSC Participation. The plan is being developed by the IT Consolidation Working Group and will include recommendations on continuing and developing shared services that meet the needs of the executive branch, including any resourcing requirements needed to provide these services.

Chair Sakuda gave an overview of the plan's structure, goals, and shared service portfolio.

The IT Consolidation Plan is mandated by legislation passed in 2022 and updated in 2024. It must be finalized and submitted twenty calendar days before the 2026 legislative session. The plan aligns with the State IT Strategic Plan and encourages each department to develop its own IT strategy that supports both state-level and department-specific goals.

Core objectives of the plan:

i. Optimize Limited Resources: Address underinvestment in IT and a 20% vacancy rate across departments;

ii. Modernize Infrastructure: Transition from legacy systems to cloud-based platforms;

iii. Enhance Cybersecurity: Implement enterprise-level governance and security operations; and

iv. Improve Interdepartmental Collaboration: Harmonize constituent services and promote shared solutions.

Structure of the plan:

i. Foundational Infrastructure: Shared hosting, networking, identity management;

ii. Shared Solutions: Microsoft 365, Adobe eSign, financial and HR systems;

iii. Professional Services: Project management, data migration, help desk support; and

iv. End-User Services: Tools and support tailored to departmental needs.

A multi-level governance model is being developed, including the CIO, IT Coordinating Council, and department leadership. The final IT Consolidation Working Group vote is scheduled for December 15, 2025. ETS is actively seeking feedback and refining the plan based on department-specific needs and concerns

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Member Choo asked what the plan is to fill the 20% vacant rate as well as retain employees as systems are consolidated. Chair Sakuda responded that ETS is working closely with departments to help fill positions. Some job descriptions may be outdated and need revision to reflect modernized systems. As legacy systems are replaced, ETS is committed to supporting departments in updating roles, retaining and upskilling current employees, and bringing in new talents where needed. Chair Sakuda also acknowledged the need for more detailed plans and assured that workforce strategy will be a major component as the plan is finalized.

Member Moriwaki questioned how the plan will be implemented across departments and will the departments request more positions, or is the plan conceptual and expected tow ork within existing frameworks. Are there and funding or staffing requests tied to the plan for the upcoming legislative session? Also, how is the plan ensuring participation from department directors, not just IT staff and how will the plan address departments' reluctance to share resources?

Chair Sakuda explained the plan outlines a broad vision but will be broken into actionable steps over the next one to three years. ETS is focused on setting realistic, phased goals to avoid overextension and ensure measurable progress. There are no new fiscal requests being made this session specifically for the consolidation plan. However, ETS is mindful of the tight budget and is focusing on what can be achieved with current resources, while preparing for future funding requests. The IT Consolidation Plan Working Group—comprised mainly of department directors and deputies—will vote on the plan on December 15. This structure ensures executive-level accountability and buy-in, addressing past challenges with interdepartmental collaboration.

VII. Good of the Order

a. Announcements

i. Introduce ETS' new Senior Communications Manager, Glenn Dela Cruz. Glenn will provide a brief update on the ETS CIO Annual Report.

Chair Sakuda announced ETS' new Senior Communications Manager, Glenn Dela Cruz, who also acts as ETS' public information officer. Glenn is currently working diligently on the ETS CIO Annual Report. We deferred the update on the report till the next meeting.

b. Next Meeting: February 26, 2026.

The Committee will invite another major modernization project team to present at the next meeting.

VIII. Adjournment

Chair Sakuda called for adjournment. The meeting was adjourned with a motion by Member Senator Moriwaki and a second by Member Nishida at 4:30 p.m.

State of Hawai‘i

Enterprise Technology Services

Ke‘ena Ho‘olana ‘Enehana

2025 Annual Report

TABLE OF CONTENTS

1. CIO'S MESSAGE

Aloha Governor Green, State Senators, and Representatives,

It has been a profound honor to serve as the State of Hawai'i's Chief Information Officer throughout 2025. I am grateful for the trust placed in me by Governor Josh Green and I thank the Legislature for their collaboration and continued support as we work together to strengthen and modernize our state's technology landscape.

This year has been one of meaningful progress, renewed alignment, and strengthened partnership across state government. I am proud to share the accomplishments of the Office of Enterprise Technology Services (ETS), made possible by the dedication and expertise of our exceptional team. Their work continues to be recognized at the state and national levels, cementing Hawai'i's reputation as a leader in digital innovation, cybersecurity resilience, and public service modernization.

In 2025, we advanced several major initiatives that reinforce our commitment to statewide technology transformation. We submitted the IT Consolidation Plan and continued implementation of the updated State IT Strategic Plan, achieving improved system reliability, and increased standardization across departments. Our Public Digital Service Vision has begun taking shape, guiding a more cohesive and user-centered approach to digital service delivery. Significant strides were also made toward completing statewide service taxonomy and catalog implementation, helping ensure clarity, consistency, and accessibility across government services.

Cybersecurity remained a top priority this year. With data classification standards now adopted by the majority of departments, we focused on strengthening statewide defense capabilities. As a result, we continued to see reductions in security incidents and improved response coordination—critical milestones in safeguarding our residents' information.

These achievements reflect the collective expertise and collaboration of partners across government. I extend my sincere appreciation to Governor Green, the Comptroller, the Department of Accounting and General Services, the Legislature, and all executive departments for their continued guidance and partnership. Our progress is a shared success, built on transparent communication and a commitment to serving the people of Hawai'i.

Looking ahead to 2026, we recognize that challenges remain—particularly in maximizing limited IT resources and meeting the growing demand for secure, reliable, and modern digital services. Yet we remain optimistic. Working in alignment with the Comptroller and the Department of Accounting and

General Services (DAGS) leadership, ETS will continue strengthening statewide governance, optimizing resources, and advancing a unified technology ecosystem that supports efficient operations and equitable access for all residents.

With transparency, accountability, and collaboration as our foundation, ETS enters the coming year with renewed purpose. Together, we will continue building a future where technology empowers our workforce, supports our communities, and elevates the quality of life across Hawai‘i.

Mahalo,

Christine Maii Sakuda

Chief Information Officer

The Kalanimoku Building in the Capitol District

2. ABOUT ETS

2.1. Background

2.1.1. Story

Keʻena Hoʻolana ʻEnehana is a Hawaiian phrase used to describe the role of Enterprise Technology Services (ETS). A rough translation of this phrase might be "Technical Support Office," but the symbolism of the words evoke much more.

Lana means buoyant. Lanalana means one kind of lashing, especially tying the ʻama (floater) to the ʻiako (booms) of a canoe. Hoʻolana relates to the concepts of buoyancy, and in particular lashing parts of the canoe together—figuratively, offering a point of launch or inspiration. Taken together, these concepts evoke how ETS uses technology to connect and uplift the government and the people of Hawai'i through digital transformation and innovation.

2.1.2. Vision

Our vision is for a state government that effectively serves the people of Hawaiʻi through efficient business processes and technology innovation, while embracing the spirit of ALOHA.

2.1.3. Mission

With the spirit of ALOHA, our mission is to advance operational excellence of government through trusted partnerships, shared resources, and technology leadership:

- Ensuring critical IT infrastructure and services are reliable and secure and
- Promoting innovative use of technology and data across the executive branch.

2.1.4. Values

Aligning with HRS §5-7.5, ETS embraces the ALOHA Spirit:

- A is for Akahai, meaning kindness to be expressed with tenderness
- L is for Lokahi, meaning unity, to be expressed with harmony
- O is for Oluolu, meaning agreeable, to be expressed with pleasantness
- H is for Haahaa, meaning humility, to be expressed with modesty
- A is for Ahonui, meaning patience, to be expressed with perseverance

In 1970, the definition of the "Aloha Spirit" was articulated by poet and philosopher Pilahi Paki at a Governor's Conference attended by Hawaiian elders and non-Hawaiian civic leaders to address issues in Hawaiʻi. Pilahi Paki described the Aloha Spirit as the alignment of mind and heart within individuals, embodying traits of charm, warmth, and sincerity found among Hawaiʻi's residents. This definition was officially included in Hawaiʻi State law in 1986. It is believed that to genuinely practice any of the principles of the Aloha Spirit, one must practice all of them collectively. Therefore, living ALOHA means adhering to all of these principles.

2.1.5. History and Mandate

In 2016, ETS was established via Hawaiʻi Revised Statutes (HRS) §27-43, which effectively brought together two existing departments related to information technology (IT) – one focused on core IT infrastructure and operations for the State (ICSD), and the other focused on enterprise

IT strategy and governance (OIMT). Today, ETS maintains those dual responsibilities, while evolving to provide additional services that enable continuous transformation for the departments that ETS serves.

ETS is composed of nine branches: Production Services, System Services, Technology Support Services, Client Services, Enterprise Systems, Network, Security, Enterprise Architecture, and Program Management. Collectively, these branches provide governance for executive branch IT projects and seek to identify, prioritize, and advance innovative initiatives with the greatest potential to increase efficiency, reduce waste, and improve transparency and accountability in state government. The branches also provide critical support to state agencies through effective, efficient, coordinated, and cost-beneficial computer and telecommunication services.

ETS is headed by a full-time chief information officer (CIO) to organize, manage, and oversee statewide information technology. The chief information officer is appointed by the governor, and the statute was amended in 2024 via Act 140 to have the CIO report directly to the Comptroller.

In June, Governor Josh Green, M.D., appointed Christine M. Sakuda as State of Hawai‘i Chief Information Officer, replacing Doug Murdock who retired the previous month. Sakuda, a graduate of ‘Iolani School, received her Bachelor of Science degree from Santa Clara University in 1991 and later received her MBA from the University of Hawai‘i Mānoa College of Business Administration in 1997. She has nearly 20 years of experience leading IT transformation initiatives in healthcare and government, on top of 15 years of experience leading nonprofit organizations. For the past seven years, she has been the Executive Director of Transform Hawai‘i Government (THG), a nonprofit organization established to catalyze the transformation of digital government services through people, process and technology to help Hawai‘i thrive. She is the State’s first female CIO of Native Hawaiian ancestry.

2.2. Executive Summary

This 2025 Annual Report provides updated information about the programs and services provided by ETS. The Annual Report also summarizes several reports that are crucial to understanding our current levels of technology investment and data collection, with links to the full reports provided in the appendix.

2.3. Expenditures and Staffing

Pursuant to HRS §27-43(e), the Annual Report shall provide information regarding the expenditures of all moneys received from all sources and deposited into the IT Trust Account and the Shared Services Technology Special Fund. These key financial figures for FY 2025 are as follows:

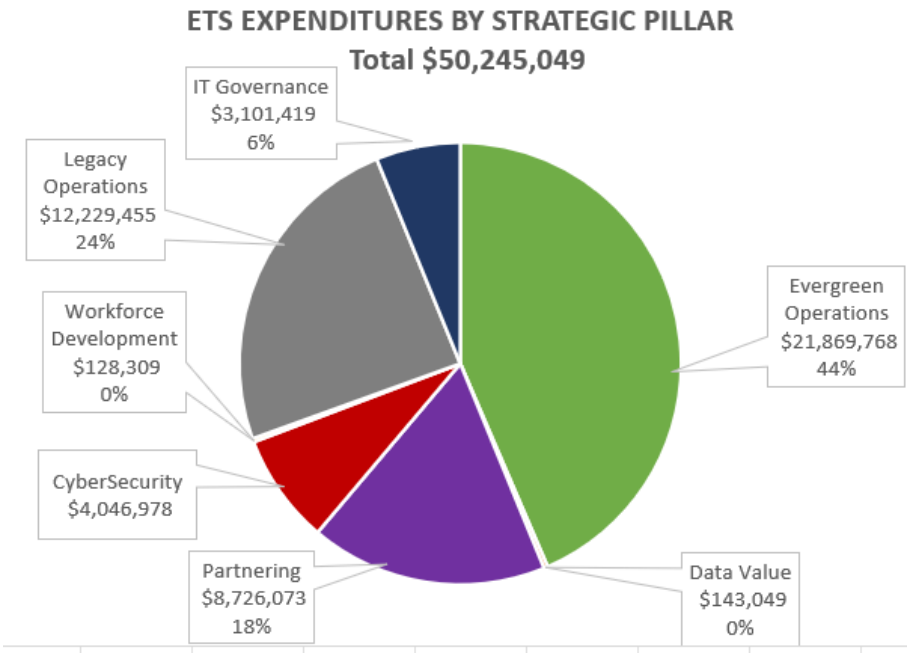
The Access Hawaii Committee Special Fund (S-25-388)

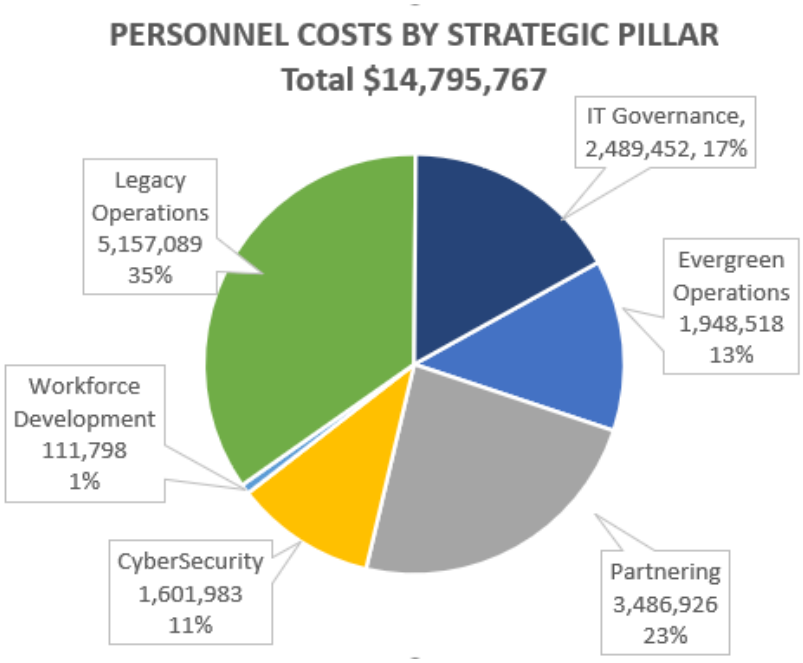
- Expenditures: $167,540.44
- Revenues: $121,581.70
- Cash Transfer: $172,523.50
- Ending Cash: $126,564.76

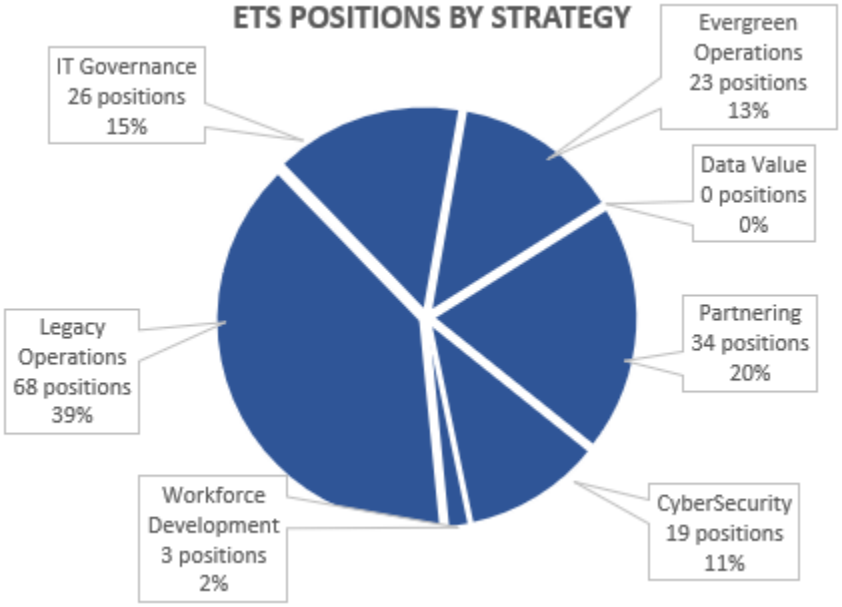
The Shared Services Technology Special Funds (S-25-333)

- Expenditures: $2,231,806.48
- Revenues: $90,101.95
- Cash Transfer: $3,367,257.84
- Ending Cash: $1,225,553.31

In addition to the required information provided above, the following charts are also provided to show ETS expenditures and ETS staffing by strategic pillar. The strategic pillars are described further in Section 3 of this report.




PERSONNEL COSTS BY STRATEGIC PILLAR
Total $14,795,767
IT Governance, 2,489,452, 17%
Evergreen Operations 1,948,518 13%
Partnering 3,486,926 23%
CyberSecurity 1,601,983 11%
Workforce Development 111,798 1%
Legacy Operations 5,157,089 35%


ETS POSITIONS BY STRATEGY
Evergreen Operations 23 positions 13%
Data Value 0 positions 0%
Partnering 34 positions 20%
CyberSecurity 19 positions 11%
Workforce Development 3 positions 2%
Legacy Operations 68 positions 39%
IT Governance 26 positions 15%

2.4. CIO Committees

HRS §27-43 established an Information Technology Steering Committee (ITSC) to work with the CIO in developing the State's information technology standards and policies, including the strategic plan. The ITSC held six meetings in 2025.

IT Steering Committee Members

Name	Affiliation	Appointed By
Christine Sakuda (Chair)	Office of Enterprise Technology Services, State of Hawai‘i	*Ex Officio Member and Chair*
Garret Yoshimi (Vice Chair *)	University of Hawai‘i	UH President
Benson Choo	Finance Factors	Senate President
Eugene Chang	IEEE Computer Society – Hawai‘i Chapter	Senate President
Sharon Moriwaki	Hawai‘i State Senate	Senate President
Arnold Kishi	Center for Internet Security, MS-ISAC	Governor
Joel Kumabe	Ohana Pacific Health	Senate President
Miki Hardisty	‘Ōlelo	House Speaker
Amy Peckingpaugh	Hawai‘i State Department of Education	DOE Superintendent
Mai Nguyen Van	Hawai‘i State Judiciary	Chief Justice
Greggor Ilagan	House of Representatives	House Speaker
Marcus Yano	CBTS Hawaiian Telcom	House Speaker

** Garret Yoshimi became Vice Chair as of 12/19/2024; previously the position was vacant.*

The CIO or designee also serves on the following state committees:

- Access Hawai‘i Committee (ex officio Chair)
- Information Privacy and Security Council (ex officio Chair)
- Enhanced 911 Board (ex officio)
- Broadband Assistance Advisory Council (appointed)
- IT Consolidation Working Group (ex officio Chair)
- Data Sharing and Governance Working Group (ex officio Chair)

Deputy Comptroller Meoh-Leng Silliman (from left), CIO Christine Sakuda, Comptroller Keith Regan, and Brooke Wilson, Chief of Staff for Governor Josh Green, M.D. at the DAGS 2023 Incentive and Services Awards Ceremony.

3. GOALS AND ACCOMPLISHMENTS

3.1. Overview of Goals and Accomplishments

The State of Hawai‘i’s current IT Strategic Plan, adopted in 2025, sets forth seven strategic priorities:

- Optimize Process Efficiency
- Improve System Modernization
- Maximize the Value of Shared Services
- Provide Business Continuity & Resiliency
- Build a Modern IT Workforce
- Enhance Cybersecurity Protection
- Optimize the Responsible Use of Data & AI

Each of these strategic priorities is discussed in more detail in this report, along with updates on key initiatives that serve to advance the strategic pillars.

3.2. Optimize Process Efficiency

This strategic priority focuses on investing time and resources to optimizing the state's overall business processes both by strategic planning and by judicious application of information technology. Target outcomes include integrating departmental IT planning & IT budgeting, investing in business process improvement, improving digital services for constituents, and digitizing towards paperless processes.

3.2.1. Departmental IT Strategies

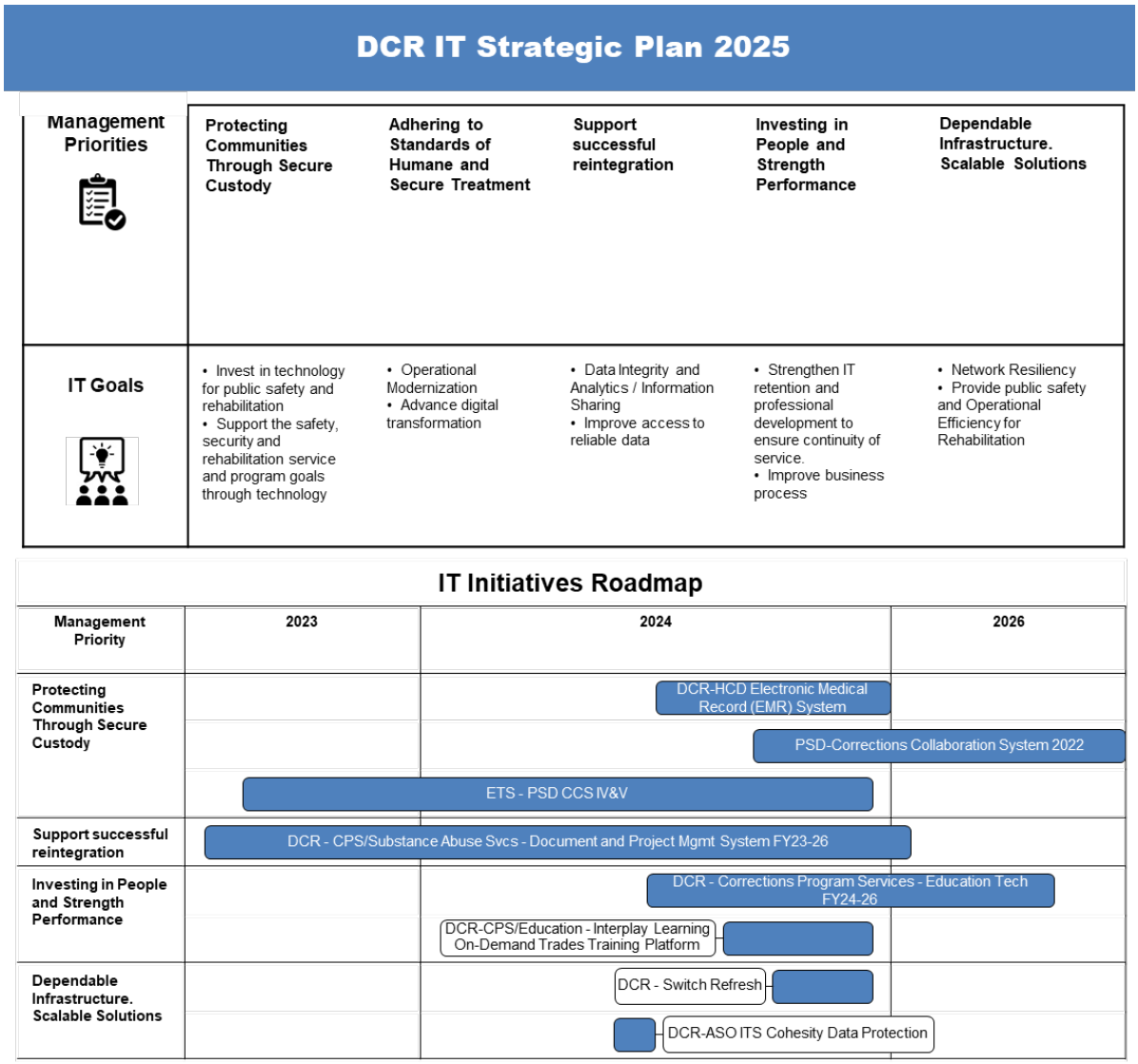
During 2025, as required in Section (4) of HRS§27-43, ETS coordinated a systematic effort to assist each State of Hawai'i Executive Branch department in creating their respective departmental IT strategic plans.

After establishing a charter and a project plan for the departmental TI strategies formulation, ETS proceeded to researching and collecting extensive background information packages for each department in preparation for a "One-Page IT Strategy" workshop in May, led by Gartner. Practically all departments participated in the workshop and were able to establish a draft version of their Ine-Page IT Strategy and these draft plans formed a solid start for each department for more extensive strategic planning throughout the year.

Finally, all departments established their more comprehensive IT Strategic Plans using the state's IT portfolio management tool (LeanIX). Utilizing the standards established for IT portfolio management, these department IT Strategic Plans now function as "living IT strategies" by virtue of both Form A budget request and IT Spend Requests both connecting with departmental IT goals, which in turn connect to both departmental management priorities (business goals) and also to specific strategic IT goals in the State of Hawai'i 2025 IT Strategic Plan.

These living departmental IT strategies now guide departmental IT budgeting and IT spending and they can be at any time automatically rendered as with One-Page IT Strategy PowerPoint presentations or as more comprehensive Department IT Strategic Plan Microsoft Word documents.

As and example, here is the Department of Corrections and Rehabilitation One-Page IT Strategy, rendered on December 3, 2025.



3.2.2. IT Portfolio Management with LeanIX

LeanIX serves as the State Executive Branch overall IT portfolio management tool. Portfolio management is the disciplined process of selecting, prioritizing, and overseeing investments as a whole so that limited public resources are used that best advance the State's strategic goals and deliver the greatest value for Hawai'i's residents. LeanIX enables a proactive, strategic approach to IT portfolio management, helping state government increase efficiency, reduce costs, and enhance service delivery across the board.

All significant information systems are inventoried in the LeanIX Application Portfolio, enabling enhanced visibility and transparency into the technical soundness of the state's systems – and identification of the most urgent systems for replacement, modernization, and migration.

Every department must enter all IT Spend Requests over $100,000 in the LeanIX IT Demand Portfolio, thus enabling rationalization and centralization of IT demand and project prioritization,

alignment of IT spending to strategic goals, more transparency across agencies, and an enhanced level of IT project risk management.

In 2024, ETS Information Technology Governance (ITG) continued the ongoing data collection into LeanIX on the state's Executive Branch overall IT portfolio by establishing standard data collection views for both departmental Application portfolios and departmental Project/Spend Request portfolios.

ETS ITG extended the data model of LeanIX to accommodate service design and planning. Starting with ETS services, service fact sheets can be connected to service customers service providers, information systems supporting the service, and IT spending related to the service.

ETS ITG developed a custom extension to LeanIX for expressing departmental IT Strategic Plans that can be related to rest of the LeanIX managed executive branch IT portfolio data – Business Goals, Business Capabilities, IT Goals, Applications, and Projects (IT Spend Requests).

ETS ITG developed a custom extension to LeanIX for streamlined IT Spend Requests.

To view year-over-year IT portfolio governance metrics, refer to Table 3 in the appendix.

3.2.3. Online Services for Constituents

The state legislature established the Access Hawai‘i Committee (AHC) in 2000 to manage the state digital government portal with the assistance of ETS. The state contracted Tyler Hawaii as the Internet Portal Provider.

The portal, online at eHawaii.gov, provides information and online services to state citizens. Today, the portal includes 161 online services for state and county agencies.

ETS has a Portal Program Manager who provides guidance to the AHC relating to strategies for online payment and processing, internet initiatives, electronic document filing, paperless initiatives, and web application development. The Portal Program Manager also monitors the portal provider's activities to ensure compliance with terms and conditions of the portal provider contract, reviews the portal provider's financial reports, evaluates new and existing Statements of Work, fee agreements, priorities, and Service Level Agreements being negotiated between government agencies and portal provider. The Portal Program Manager collaborates with the portal provider and government agencies to promote e-government and increased on-line services that can be easily, conveniently, and securely accessed by the public.

ACTIVITIES AND ACCOMPLISHMENTS

The portal program launched fifteen (15) new services and major upgrades in fiscal year 2025. These services include:

- Unemployment Insurance Overpayment Collection Payments – Department of Labor and Industrial Relations
- Judicial District Court Judge Evaluation – Judiciary
- Attorney General Online Auction – Department of the Attorney General
- Hawaii Police Department Website Redesign – County of Hawaii
- Kauai Commercial Refuse Payments – County of Kauai

- Transient Accommodations Tax Payments – County of Hawaii
- Kauai Department of Water Website Redesign – County of Kauai
- Judicial Family Court Judge Evaluation – Judiciary
- Hunter Education and Records Management System (2x) – Department of Land and Natural Resources
- Department of Transportation Online Auction – Department of Transportation
- State Procurement Office Online Auction – Department of Accounting and General Services
- Invest Hawaii Website Redesign – Department of Business, Economic Development and Tourism
- myHawaii Single Sign-On Support – Office of Enterprise Technology Services
- Honolulu Legislative Document Access – City and County of Honolulu

In 2025, Tyler Hawaii worked on two (2) no-cost projects. The Judicial District Court Judge Evaluation and Family Court Judge Evaluation which provides attorneys with convenient and easy methods to complete the evaluation of ten (10) district court judges and fourteen (14) family court judges.

The State portal program earned four awards this fiscal year:

- Hawaii Technology Development Corporation (HTDC) Website Redesign– Department of Business, Economic Development and Tourism, HTDC
    - Communicator Award – Award Distinction
    - Horizon Interactive Award – GOLD Award
- Hawaii Police Department Website Redesign – County of Hawaii, Police Department
    - Hermes Award – GOLD Award
    - Global Excellence Award – GOLD Award

On April 6, 2025, ETS and Tyler Hawaii successfully integrated and launched ninety-six (96) portal services using myHawaii, the ETS Citizen Identity solution for single sign-on. The myHawaii platform provides citizens with a secure and streamlined single sign-on experience for accessing Hawaii's government services online, thereby enhancing efficiency and user experience.

BY THE NUMBERS

The eHawaii.gov portal program provides 161 online services. In fiscal year 2025, the portal collected $722,370,356 and disbursed $709,011,154 (98% of funds) to the state and county agencies. Portal revenue was $13,359,203 and expenses were $10,078,159, resulting in an operating income of $3,281,044.

3.3. Improve System Modernization

This strategic priority focuses on improving the statewide IT service lifecycle management, managing IT architecture in each department, improving IT vendor delivery, and defining better architecture & technology standards.

3.3.1. Partnership and Governance of Major Information Systems

As part of Partnering for Successful Outcomes and IT Governance, ETS monitors progress on a state-wide portfolio of major systems from ideation to recently operational to help departments ensure that systems are properly engineered and ready to meet business requirements. Below is the list of major systems ETS is monitoring and assisting with as of October of 2023. Details including timelines for all State of Hawaii active IT projects related to major information systems can be found on our ETS website at https://ets.hawaii.gov/state-of-hawaii-it-portfolio-management/.

COMPLETED - Operational	**Department**
Tax Modernization	DOTAX
KOLEA Medicaid System	DHS
HiMod Human Resources & Payroll	DAGS/DHRD
HiMod Time & Leave Management	DAGS-Statewide
ERS Financials	B&F-ERS
ERS Benefits Replacement	B&F-ERS
OHA Financials	OHA
PVL Ho'ala License Management System	DCCA
Health Benefits Administration System (IV&V)	B&F-EUTF
Behavioral Health Inspire (IV&V)	DOH
DOE Financial Management System	DOE
RECENTLY COMPLETED - Operational / Developing Additional Phases	**Department**
Harbor Master Information System	DOT-HAR
Disability Compensation (IV&V)	DLIR
Case & Document Management System (CDMS) (IV&V)	DCCA-PUC
IN PROGRESS - Developing	**Department**
Statewide Enterprise Financial System (IV&V)	DAGS-Statewide
Benefits Eligibility System (IV&V)	DHS
DOT-HWY Financial Management System (IV&V)	DOT-HWY
BRIMS Business Registration Modernization (IV&V)	DCCA
E-Procurement System	DAGS-SPO
KEIKI Child Support Enforcement Re-platform (IV&V)	ATG
Immunization Registry	DOH
Medicaid Health Analytics Program (IV&V)	DHS

Vital Records Management Information System	DOH
STARTING FY 2024	**Department**
Unemployment Insurance Re-procurement (IV&V)	DLIR
Child & Adult Welfare (IV&V)	DHS
Corrections Management (IV&V)	PSD
Other Major Modernizations Completed Since 2015	
Microsoft Office365 - Including Office, SharePoint, OneNote, Teams	ETS, Executive Branch Wide
Adobe eSign	ETS, Executive Branch Wide
Microsoft Azure Active Directory	ETS, Executive Branch Wide
MainFrame as a Service (MFaaS)	ETS, DLIR, DHS, DAGS, DOT, DAGS
Access Hawaii Committee Portal Infrastructure	ETS, Executive Branch Wide
Cybersecurity Endpoint Detection and Response	ETS, Executive Branch Wide

3.3.2. Independent Verification and Validation Reports (IV&V)

In accordance with §27-43.6, HRS, and §93-16, HRS, Independent Verification and Validation (IV&V) reports for designated major information technology (IT) projects are submitted to the Legislature and made publicly available on the ETS website.

IV&V is a nationally recognized best practice that provides an objective, third-party assessment of a project's performance, risks, and alignment with contractual and statutory requirements. The IV&V process evaluates whether a system is being developed in accordance with customer needs, industry standards, and sound engineering principles.

Key IV&V activities include:

- Monitoring project scope, schedule, budget, and quality
- Identifying and escalating risks and issues early
- Assessing vendor performance and deliverable quality
- Recommending corrective actions to improve outcomes
- Verifying that the system meets both functional and non-functional requirements

These reports are submitted monthly and serve as a critical tool for promoting transparency, accountability, and successful delivery of high-impact IT initiatives across the State of Hawai‘i.

In 2025, ETS provided IV&V oversight over the following projects:

- Department of the Attorney General Child Support Enforcement Agency's KEIKI Replatform Off Mainframe Project
- Department of Commerce and Consumer Affairs Business Registration Modernization Project

- Department of Health's Behavioral Health Administration Alcohol and Drug Abuse Division Inspire-Plus Case Management Solution Project
- Department of Health's Behavioral Health Administration Integrated Case Management System
- Department of Human Services' Child Welfare Services Branch HI-THRIVE Modernization ProjectDepartment of Human Services' HANA Modernization Project
- Department of Human Services' Systems Modernization Project
- Department of Labor and Industrial Relations, Unemployment Insurance Division's Modernization Project
- Department of Transportation's Financial Management Systems Project

3.4. Maximize the Value of Shared Services

This strategic pillar focuses on optimizing and investing in the state's shared IT services and solutions deliver the essential statewide shared business capabilities. Target outcomes include improving statewide IT services, establishing a collaborative statewide shared service strategy, developing a cost-sharing approach for shared IT services, and enabling an optimized ERP system.

3.4.1. IT Consolidation

IT Consolidation under Act 179, Session Laws of Hawai`i 2022 (SLH), and its amendment Act 173, SLH 2024, represents a critical initiative to improve efficiency, security, and effectiveness of the State's IT operations. The consolidation aims to gain economies of scale, enhance service delivery, and ensure compliance with growing regulatory requirements for accessibility, information storage, data sharing, and security.

This initiative directly supports the State IT Strategic Plan's goals of optimizing IT resources, standardizing processes, and improving service delivery while reducing costs. The effort focuses on phased consolidation of selected executive branch IT services to create a more coordinated and efficient IT environment.

In 2025, progress was made across several areas including:

- Completed State IT Strategy refresh
- Drafted new Public Digital Service Vision
- Advanced state-wide service taxonomy and catalog implementation
- Made progress on selected departments' IT strategies development
- Established the State Data Task Force and adopted a state data governance framework
- Advanced IV&V vendor governance including standardized reporting, and vendor evaluation and procurement
- Further refined polices and guidance for key IT processes, such as large-scale enterprise systems procurement

- Progressed on shared services implementation (e.g. IT security services) and infrastructure consolidation (e.g. procurement of a new state cloud hosting environment)
- Conducted in-depth evaluation of integrated enterprise IT governance and management tools for ETS and for the departments to share, in anticipation of piloting and wider implementation at the state level

The IT consolidation effort continues to evolve with emerging technologies and changing needs. The addition of Act 173 requirements has expanded the scope to include critical systems analysis and data center resiliency. New funding will be analyzed in FY 2027 to support essential infrastructure modernization, enhancement of citizen-facing digital services, implementation of robust security measures, and development of our IT workforce. These investments aim to generate substantial annual savings when fully implemented, while reducing the need for increasing state IT employee headcount.

3.4.2. Enterprise Financial System (EFS)

The state's existing financial management system (FMS), which has been in use for more than 50-years, needs modernization to keep pace with the evolving demands of state governance and public accountability. In addition to a modernized financial management system, the state will be investing significant resources into reengineering its business processes in order to improve efficiency and reduce waste. As part of this project, the state is conducting a comprehensive solicitation process to procure an offeror capable of delivering a robust, cloud-first Enterprise Financial System (EFS) that will support the state's complex financial operations, improve the efficiency of financial processes, and enable data-driven decision-making across all departments.

The successful EFS solution will:

- Standardize Financial Practices
- Leverage Modern, Cloud-First Technology
- Enhance Transparency and Accountability
- Support Strategic Objectives
- Ensure Compliance and Risk Management

The state's initiative to replace its existing FMS is strategically aligned with a broader vision of improving operational efficiency, enhancing service delivery, and ensuring robust financial governance.

The goals of this modernization effort include:

- Modernized Business Practices
- Optimized Financial Operations
- Enhanced Accuracy in Financial Reporting
- Improved Regulatory Compliance
- Increased Operational Transparency
- Advanced Analytics and Forecasting
- User-Friendly Interface
- Scalable and Flexible System
- Cost-Effectiveness and Value
- Enhanced Stakeholder Service
- Proactive Financial Risk Management
- Uniform Chart of Accounts (UCOA) Implementation
- Preparation of the Annual Comprehensive Financial Report (ACFR)

With the support of the Office of Enterprise Technology Services (ETS), the Department of Accounting and General Services (DAGS) developed a comprehensive new Request for Proposals (RFP) for the EFS.

The state hired the consulting firm Gartner to assist in the development of this new RFP. Spire Hawaii LLP was also engaged to ensure the requirements specifically related to contemporary accounting practices were accurately documented and incorporated into the solicitation.

Taking a more functionally led approach than previous FMS modernization attempts, the team held more than 125 meetings with various executive branch departments and agencies to ensure the range of organizational business needs would be addressed by the new financial system. This outreach and involvement of functional leads in the development of an enterprise-wide system is a marked improvement on earlier efforts and the feedback from participants has been overwhelmingly positive.

In addition to these functional meetings, the updated RFP underwent vetting by more than 120 state employees with direct knowledge of our accounting and financial business requirements.

At the time of writing this report, the RFP was published and multiple offers were provided by software and system implementation vendors. The EFS evaluation committee is in the process of reviewing the offers and are preparing for a series of in-person demonstrations from the priority-listed offers. These demonstrations are expected to be held in early Q3 FY 2026. The EFS project team anticipates making an award to the responsible offeror whose proposal is determined to be the most advantageous to the State no later than Q4 FY 2026. An executed contract and project kickoff is anticipated to be in place before the end of Q2 FY2027.

3.4.3. Providing Technical Support for ERP Systems

ETS provides both technical and functional support for the Hawai‘i Information Portal (HIP) Enterprise System which includes support for Central Payroll (CP), Human Resources (DHRD and all non-executive branches), and Time & Leave applications (T&L).

ETS also provides data application security support for all department users and applications within HIP which includes department level security, custom security maintenance, and single sign on support linking multiple Active Directory environments.

ESB, in partnership with DAGS and DHRD, started upgrading HIP to the latest application and tools release which is slated to be released in Q1 FY 2026. This will deliver strategic and operational benefits that directly support long-term efficiency and regulatory compliance.

3.4.4. Enterprise Agreement with Microsoft for Productivity and Collaboration Tools

ETS manages the Microsoft Office 365 Enterprise Agreement Subscription (EAS) and provides its features and functions to Executive Branch departments. The ETS-managed contract for state government provides access to a suite of cloud-based productivity and collaboration tools. This includes Microsoft Office components, Outlook Email, Microsoft Teams, SharePoint, the Power Platform, and other mission critical functions.

In September 2024, the state executed year one of the Microsoft G5 licensing implementation. The G5 license level is Microsoft’s most enhanced product offering, providing enterprise-level tooling for Data Compliance Management, Cyber Security, Telephony, and Data Analytics.

The state's investment in the Microsoft G5 licenses supports the State IT Strategic plan in the following areas:

- **Optimize Enterprise Systems**. G5 includes Microsoft Teams Phone, enabling a comprehensive telephony solution that can either replace or integrate with existing communication systems. Teams Phone, also referred to as Teams Calling, provides digital telephony services and basic call center capabilities. Its flexible calling capabilities support emergency communications and business continuity, remote and hybrid work, and provides potential cost savings upwards of 50% per user.

  With G5, agencies gain access to Power BI, a robust business intelligence tool that allows for the creation of real-time dashboards and deep data insights. This capability supports data-driven decision-making, which ultimately enhances the effectiveness of public services.

- **Implement Dynamic and Sustainable IT Operations**. Leveraging Microsoft 365 provides our organization with a modern, flexible platform that ensures our business systems are always up to date, secure, and capable of meeting both current and future needs. With regular automatic updates, we benefit from the latest productivity tools, enhanced security features, and improved functionalities with little disruption to our services. This approach enables our systems to remain aligned with the evolving technology standards and allows staff to focus on core business objectives rather than maintenance tasks.

  The suite's cloud-based architecture supports seamless collaboration and access across devices, allowing business users and remote employees to connect, share, and collaborate in real-time – enhancing productivity and responsiveness. Features like Microsoft Teams, SharePoint, and OneDrive for Business facilitate team collaboration and information sharing, fostering a more connected and agile workforce

  The much-anticipated release of Microsoft 365 Copilot set for late 2024 will generate a surge of use of the various Copilot products. Microsoft G5 gives the state enhanced capabilities to govern and manage Artificial Intelligence (AI) services and to protect and secure the state's data.

  Microsoft 365 helps us deliver better digital services by maintaining secure, reliable, and user-friendly systems. Robust compliance capabilities ensure we meet regulatory requirements for handling sensitive information, and scalable resources enable us to expand services as citizen needs grow. By integrating Microsoft 365 into our operations, we create a foundation that supports innovation and flexibility, preparing us to adapt to the needs of both our employees and our community now and in the future.

- **Expand Statewide Cybersecurity Strategy**. With Microsoft 365 G5, we can now better protect citizen data and critical government information, ensuring compliance with local, state, and federal regulations. These enhanced tools allow us to mitigate risks, maintain a strong cybersecurity posture, and uphold the public's trust in our ability to secure their data.
    - Transitioned more than 13,700 state users from the Microsoft O365 G3 licensing level to the M365 G5 licensing level.
    - Assisted multiple agencies on their transition from traditional phone systems to the cloud-based telephony solution using Microsoft Teams Calling.

- Made available an enterprise solution for mobile device management of company cell phones, which will help enforce company policies and protect sensitive data.
- Assisted additional departments with the migration of their traditional network file servers to cloud-based storage solutions.
- Released statewide guidance and tooling for implementing a passwordless login solution for endpoints, leveraging Windows Hello for Business.
- Hosted the following Microsoft training workshops - Microsoft Azure Security Best Practices, M365 Copilot and Azure Copilot, and Microsoft AI Governance Fundamentals.

Challenges: The state's Microsoft Enterprise Agreement Subscription (EAS) contract was due for renewal on July 1, 2024. However, due to the lobbying efforts of Microsoft with the State Legislature to secure a budget for the upgrade to G5, ETS received funding in fiscal year 2025 to execute the transition. This impacted the timely renewal of the EAS and ETS entered a 90-day grace period on July 1 to update the contract with the enhanced G5 functionality. Furthermore, due to budget constraints, the Governor reduced the G5 budget line item by half. In order to avoid mass disruption or possible loss of access to the Microsoft services, ETS leveraged funding across other ETS programs to cover the cost of the Microsoft license renewal in fiscal year 2025 quarter one as the state entered into the 90-day grace period to complete negotiations and executed the revised annual renewal before September 30, 2024.

3.4.5. Enterprise Agreement with Adobe for Electronic Signature and Digital Document Workflow

ETS provides management and administration of a statewide electronic signature (eSign) software using the Adobe Acrobat Sign platform. The eSign service is available to the vast majority of state employees across the executive, legislative, and judicial branches of government. ETS manages the Adobe Enterprise Term License Agreement (ETLA), which includes the eSign platform as well as software licensing for Adobe Acrobat, the Adobe Document Cloud, and all Creative Cloud software.

Adobe Sign enables increased government efficiency and enhances productivity for employees and constituents by transforming traditional paper-based workflows into fast and efficient digital processes. Teams can quickly send, sign, and manage documents electronically, eliminating the time-consuming steps of printing, scanning, and physically handling paperwork.

The state's investment in the Adobe electronic signature platform supports the State IT Strategic plan in the following areas:

- **Optimize Enterprise Systems**. ETS continues to invest efforts in assisting departments with the further digitalization of processes requiring signatures.
- **Implement Dynamic and Sustainable IT Operations**. Keeping government functions operational in hybrid work environments or during a disaster or emergency is a key objective of the State of Hawai'i preparedness plan. Technology services that enable employees to work remotely and through the web is critically important during these situations. Cloud computing and hosted applications or Software as a Service (SaaS) allow workers to remotely access the software and data they need from outside of the office.

Adobe Sign allows workers to facilitate the signing of documents securely and legally through the web. Workers can continue to process documents that require signatures without the need to print, manually route, or wet sign, keeping essential business processes timely and flowing. Workers have access to the Adobe Sign service from any web browser with an internet connection whether they are working in or away from the office.

- Performed an upgrade and migration of the Legislature and Department of Education Adobe Sign accounts from a legacy Adobe Sign platform to an updated version.
- Implemented a reimbursement system for ETS to recoup costs from departments utilizing the various Adobe software licenses available through the ETS Adobe ETLA.
- Continued to enhance the functionality of the eSign platform, enabling additional features and providing training to users and IT staff across the departments.

Challenges: Due to the restructure and price increase enforced by Adobe on the renewal of the state's multi-year Adobe ETLA in 2022, ETS could no longer afford to cover all costs centrally. Out of necessity, ETS implemented cost reimbursements with each department and departments were required to cover the cost for their individual Acrobat and Creative Cloud licenses. With the budget ETS had to work with, ETS could continue covering the cost of the Adobe Sign platform and a portion of the department Acrobat usage as a centrally cost-covered shared service.

3.4.6. Enterprise Agreement with ESRI for Geographic Information System (GIS)

ETS manages and oversees the ESRI Enterprise Agreement (EA) for GIS software and applications. GIS software usage has evolved to become incorporated into core business function for the State. GIS has also become a key aspect of how data is organized and shared, as more and more state departments realize the benefits and value of managing their data through configurations of our software. During the span of the last EA, we have seen continued growth in the adoption of ArcGIS Desktop and Enterprise deployments, in addition to state agencies needing access to ArcGIS Online named users and other Software-as-a-Service (SaaS) offerings.

Currently, over twenty (20) departments, agencies, and divisions use the EA to access ESRI 'sArcGIS platform products, including:

- Hundreds of cloud applications and software use cases, both internal and public facing
- 300+ specific instances of desktop software installed
- 20+ specific instance of enterprise server software installed
- Deployment of critical citizen services apps for emergency management, health and housing, and data dashboards for HIEMA, DOH, Office of the Governor, and HCDA.

There has been growth in user adoption and organizational use of the EA throughout the Executive Branch every year since its inception.

We anticipate this growth to continue as departments such as DOT Harbors and Highways, DLE, DOH, and DBEDT turn to ESRI technology in order to streamline business functions, share critical data, and collaborate with other users both internal and external to their organizations.

During the pandemic, ESRI technology enabled state staff to be agile, respond, and adapt. As the state is faced with continued environmental and economic challenges, the many capabilities included in this offer will continue to support state planning, decision making, and response efforts. Lessons

learned following the fires on Maui have called for establishing methods for agencies to get access to critical data and share information more effectively with the public. Agencies like HIEMA and MEMA are making bigger investments in GIS to help predict, better respond to, and mitigate future hazards and disasters.

Providing residents with affordable housing options is another significant challenge that the state is currently facing, and state leaders are turning to ArcGIS Solutions in order to tackle Governor Green's priorities. These are complex problems that will require unique ways to process and visualize data, key metrics, and demographic information. The Governor's Office and HCDA are looking to expand their use of GIS and develop solutions which utilize 3D building model data layers that were developed by the City and County of Honolulu.

By leveraging SaaS capabilities that are available in the EA, the State continues to collaborate around data in unprecedented ways, opening up state-hosted platforms using Esri technology to enable public/private partnerships, and sustainability priorities such as the Aloha+ Challenge, which have become a model of technology adoption for sub-national Sustainability Development Goals. Additionally, the Office of Homeland Security has established a robust data sharing environment around critical infrastructure data. This system will support data sharing between state, county, private, and public entities, to help plan and protect against hazards and threats. The Office of Planning GIS Program facilitates the hosting and management of data for state agencies which are required to share geographic information with the public. Open data services provide access to data for countless projects and initiatives, which have benefits that are economic, educational, policy focused, and help to make Hawai'i relevant to the rest of the world.

The state EA has also helped to facilitate access to software which has become central to agency operations. DOT Highways, Harbors, and Airports all use GIS to manage assets, report, and perform inspections. The State Historic Preservation Division provides access to historic and cultural data and records using an interactive GIS Portal. DOFAW manages and approves collections permit requests from the public, in addition to coordinating with volunteers for forest reserve conservation efforts, while DOA uses GIS to monitor and inspect traps preventing Brown Tree Snakes and the Coconut Rhinoceros Beetle from invading our islands. DOCARE uses GIS to collect critical data in the field and to execute their mission of protecting Hawai'i's precious resources. GIS is even the foundational element to help manage geoprocessing of addresses for state Online Voter Registration, and the development of a future NextGen 911 system.

Challenges: To continually keep pace with growing GIS software and applications demand, how to properly fund and manage at an enterprise level, and how to equitably apportion licenses for the entire executive branch.

3.5. Provide Business Continuity & Resiliency

This strategic pillar focuses on identifying & mitigating risks related to end-of-life legacy applications, continuity risks to paper/non-digital processes, resiliency risks related to Internet connectivity, risks to recovery efforts.

3.5.1. Kalanimoku Data Center Migration Efforts

ETS has been working with executive branch departments over the past several years to incrementally transition computer systems and services from the State Data Center in the basement of the Kalanimoku Building to commercial data centers to achieve a higher level of security, electricity cost savings, and more reliable and flexible services.

In 2022, legacy mainframe computer applications transferred from physical equipment to a cloud-based "Mainframe as a Service" provider using state-of-the-art data centers in Omaha, Nebraska. With that change, the state no longer owns mainframe computer hardware.

Concerns in the aging data center include power failures, cooling equipment, and flooding in the basement location. The few remaining computer systems, communication networks, and high-volume printing services will similarly migrate out of the Kalanimoku data center with complete decommissioning expected by 2026.

An assessment of the major services found three critical systems remain: The IBM AIX servers, the NCIC room housing servers and circuits for CJIS, and the mass printing services we provide to the state in printing checks and reports.

Three departments, DCCA, DAGS Archives and ATG Hawaii Criminal Justice Datacenter, continue to use the IBM AIX Power system and we are working on retiring the leased equipment by the end of June 2026. The NCIC room continues to house critical connections to law enforcement agencies. The Attorney General's IT department expects to complete upgrading the server migration to DR Fortress r by the end of 2025.

For the printers, ETS is working to migrate the print services to a non-flood on island location.

See Table 2 in the appendix to see the declining amount of paper used for print services.

3.5.2. Proof of Concept (POC) to Build Out AWS Landing Zone (Public Cloud)

The Government Private Cloud (GPC) provides virtual servers for hosting departmental applications in a secure, government-owned and maintained private cloud environment, supporting both Windows and Linux environments. Currently, the GPC is hosted across three strategic sites across on Oahu: the Kalanimoku Building, the University of Hawai‘i, and DRFortress.

As part of our strategic vision, ETS continues to expand the GPC by transitioning from state-maintained physical hardware to a public cloud infrastructure. This initiative addresses the end-of-support for the existing hardware and eliminates the need for costly hardware refreshes. Instead, ETS is committed to leveraging cloud-based infrastructure-as-a-service (IaaS) subscriptions, ensuring a modern, flexible, and efficient platform to meet the state's evolving needs.

To sustain this critical migration, ongoing funding will be required to transition servers and workloads seamlessly from physical hardware to the cloud-based datacenter. The future GPC will no longer rely on physical infrastructure, instead integrating on-island capabilities with public cloud resources to achieve a scalable and resilient hybrid cloud environment.

This transition will enable ETS to further develop its hybrid cloud capabilities, delivering the following key benefits:

- Enhanced Disaster Recovery: Establishing off-island disaster recovery (DR) capabilities for core and critical virtual servers ensures operational continuity during emergencies, safeguarding vital systems hosted on-island.
- Reduced Physical Footprint: By migrating production and test virtual servers to a mainland-linked public cloud, ETS can significantly reduce the reliance on on-island physical servers while leveraging managed server solutions.
- Rapid Scalability: The public cloud environment allows for quick scaling to accommodate additional workloads or shifting workloads as organizational needs evolve.
- Seamless Workload Mobility: With the flexibility to move virtual servers effortlessly across cloud and on-premises environments, ETS can respond efficiently to DR events and optimize performance or cost metrics.
- Enhanced Compliance and Certification: The hybrid model facilitates onboarding of mission-critical and regulated application workloads. It supports data center certifications such as FedRAMP authorization, IRS 1075, CJIS, and CMS, expanding the GPC's capabilities for sensitive applications.

Additionally, the transition creates opportunities to upskill state IT staff, enabling them to focus on higher-value activities like automation, compliance, disaster recovery, and service-level agreement (SLA) management for critical workloads, while reducing the burden of administrating facilities, hardware, and operating systems. These advancements ensure that the GPC remains a cutting-edge, scalable, and efficient solution for Hawai‘i's IT infrastructure.

This expanded vision for the GPC represents a transformative shift, ensuring that Hawai‘i remains at the forefront of innovation, resilience, and operational efficiency in its IT infrastructure. By embracing this modernized hybrid approach, ETS positions itself to meet current demands while laying the groundwork for future technological advancements.

In 2024, ETS worked with a cloud partner to perform an assessment of the current GPC infrastructure and server environment. The goal was to optimize resource allocation, identify suitable cloud products and services, and develop a data-driven business case for cloud migration. This involved a detailed analysis of the existing infrastructure, right-sizing recommendations, cost savings identification, and licensing guidance, culminated into a final report and presentation of findings to the ETS cloud team.

ETS piloted a Proof of Concept (POC) with a cloud partner for the design, implementation, and migration of a few selected applications and workloads to a public cloud environment. The objective of the project was to determine whether the proposed public cloud environment would be able to sufficiently support the requirements of the state applications that are hosted in the current GPC infrastructure.

The project also looked to ensure that the target public cloud environment was scalable, secure, and compliant with necessary regulations. The project started with discovery and high-level planning, followed by migration design and facility build, detailed planning and event preparation, migration execution and testing, and concluded with support and handover to the ETS cloud team.

Additional phases of the POC were identified as a result of this project and further testing is still to be done to fully ensure that the environment will be production ready to host mission critical IT infrastructure and business critical department applications.

BY THE NUMBERS

The GPC assessment analyzed 525 total server instances in the current on-premises cloud environment.

The transition to re-architect the Government Private Cloud (GPC) introduced significant changes across multiple dimensions, including the underlying platform and technology, the structure of shared service offerings for departments, budgetary considerations, and the skillsets required to support the evolving solution. This ambitious initiative demanded extensive planning and adaptability from staff, who were stretched thin as they balanced the demands of this transformative project with the ongoing maintenance and support of the existing cloud infrastructure.

To tackle these challenges, ETS collaborated with a cloud integrator to provide strategic and technical guidance throughout the transition. The ETS cloud team committed to quickly learn the new technologies, actively participating in numerous cloud training opportunities to expand their expertise and support the initiative effectively. Significant work remains as this project continues to evolve and take form.

In 2025, ETS will continue its collaboration with a cloud partner to further refine and strengthen the new GPC cloud environment. Additional integration phases will focus on advancing the design and development of the infrastructure, ensuring the solution delivers robust resiliency, optimal performance, enhanced security, and comprehensive governance. The migration of critical workloads will undergo rigorous user acceptance and environmental testing to ensure the new environment meets performance and reliability standards before full implementation.

3.5.3. Hawai‘i Wireless Interoperability Network (HiWIN)

ETS manages the Hawai‘i Wireless Interoperability Network (HIWIN) supporting more than 6,000 radios and operates across 44 Land Mobile Radio (LMR) sites, with an additional eight sites dedicated to microwave backhaul, totaling 52 locations statewide. HIWIN is a critical communication network utilized by state agencies, federal partners, county responders, EMS, and all major airports. It ensures seamless coordination and interoperability for police, fire, EMS, lifeguards, and other first responders throughout Hawai‘i.

HIWIN’s primary focus is to enable seamless, reliable, and secure communications across various government and emergency response agencies, fostering rapid coordination in both daily operations and times of crisis. With Hawai‘i’s geographical isolation and unique vulnerability to natural disasters—such as hurricanes, tsunamis, and volcanic activity—effective and robust communication systems are indispensable.

For ETS, HIWIN aligns with the commitment to modernize Hawai‘i's IT infrastructure and ensure continuity in government operations through technology-enabled solutions.

Primary Goals, Objectives, and Key Outcomes:

- Ensure Communication Resilience: Establish resilient, secure, and interoperable communication systems that support mission-critical functions across state, county and federal public safety agencies.
- Enhance Interagency Coordination: Provide a shared platform for efficient communication between agencies such as law enforcement, fire, EMS, and other first responders, optimizing response times and enhancing public safety outcomes.
- Support Technological Advancement: Integrate emerging technologies to increase coverage, reliability, and ease of access for users, ensuring HIWIN remains adaptable to future needs.
- Alignment with the State IT Strategic Plan: HIWIN aligns closely with the State IT Strategic Plan by advancing the goals of infrastructure modernization, interoperability, and resilience. By facilitating a secure, unified communication network, HIWIN supports statewide initiatives that drive digital transformation in public safety and government operations, ensuring that Hawai‘i’s IT systems are both sustainable and prepared to meet the demands of modern public service.

  In 2024, HIWIN achieved major upgrades to increase capacity and resilience, including transitioning 10 sites from legacy Frequency Division Multiple Access (FDMA) to Time Division Multiple Access (TDMA) to better serve Hawai‘i’s public safety needs.

In 2024, significant advancements were made in upgrading and modernizing HIWIN to ensure its readiness for modern communication demands and its resilience in critical situations.

Multiple layers of redundancy were added to HIWIN to fortify the network's reliability. This included implementing both cellular and Starlink connectivity options across several sites, providing failover capabilities that ensure continuity even if primary communication pathways are disrupted.

Several HIWIN sites received upgraded IP data routers to enhance connectivity and integration with state IT systems.

3.5.4. Next Generation Network

Next Generation Network (NGN) began in the early 2000’s to support the use of multimedia agency applications, like video, by state agencies. Today, NGN is a fully connected and integrated statewide network.

NGN provides communications capacity to state agencies enabling them to deliver services to the public and on-demand communication between state agencies.

The key factor that enabled NGN to be implemented statewide is the Institutional Network (INET) provision division of the Department of Commerce and Consumer Affairs. Through the INET provision the State has been able to procure fiber optic connections from cable TV companies, at their cost, to create the desired bandwidth with state-provided communication (network) equipment at the ends of the fiber optic cabling and manage the bandwidth through state network management systems.

NGN is a necessary asset for ongoing state operations and can be thought of as the State’s “cloud.”

ETS has the responsibility of ensuring that the communication (network) equipment is updated and compliant with the manufacturers’ requirements. Much of the NGN’s communication (network)

equipment is reaching “end of life (EOL)” status. Once the equipment reached EOL status, the manufacturer drops support of it.

Accordingly, much of ETS’s activities related to NGN in 2024 has centered around the replacement of equipment that have reached EOL or soon will. Some replacements are done for upgrades to newer models with more capability.

Each replacement effort is a project in itself that requires considerable work and staff resources. Preparation of the replacement equipment includes configuration programming and testing. Equipment replacement often requires downtime for a portion of the network so scheduling with the staff where the equipment is located, and all other State agency offices that will be impacted by the downtime is critical. Often, replacement work is scheduled after hours, or on the weekend to minimize the impact.

3.5.5. Enterprise Notification System using Alert Media

ETS renewed the 10,000 licenses of the Alert Media services to create an Enterprise Notification System (ENS) for participating Executive Branch Agencies’ staff. The ENS gives the state mass notification capabilities using voice call, text message, email, or mobile app push notification. Outgoing notifications can target by organizational entities, specific geographic locations, as well as other kinds of categorizations. It is also possible for individuals to issue a request for assistance. The ENS is functionally deployed by 10 agencies now with 11 other agencies in various states of deployment. There has been continued growth of usage and cross training within the departments to ensure messages are sent and in a timely manner.

The Alert Media system is growing in popularity as the other departments hear about its services. It does take training and initial configuration and documentation to get agencies onboard.

3.5.6. Emergency Operations

ETS has continues to provide 24/7 IT and telecommunication staffing support for the State Emergency Operations Center at Diamond Head where they monitor operational status of statewide communications networks, assist with expanding state worker telework and teleconferencing capabilities, and provisioning Internet broadband and IT services.

3.5.7. Shared Services Help Desk

The ETS Service Desk serves as the central hub for IT support of ETS shared services across all executive branch departments. The Service Desk plays a critical role in streamlining IT administration across the state and provides comprehensive technical assistance to state agencies and users, ensuring efficient resolution of IT issues, continuity of operations, and improved governmental access to information systems.

The Service Desk provides support, service request fulfillment, and escalation for ETS shared services in the categories of Accounts and Access, Business Applications, Cyber Security Services, Data Management, Desktop and Mobile Devices, Document and File Management, Enterprise Applications, Network and Connectivity, Productivity and Collaboration, Service Hosting and Storage, and Website Services.

Its primary goals include improving customer satisfaction, reducing ticket resolution times, and expanding communication and awareness of available services.

The Service Desk is a critical component of IT service management, playing a key role in tracking incidents, managing problems, and ensuring the smooth operation of shared IT services.

In December 2023, ETS upgraded from a homegrown service desk system to a cloud-based, commercially available IT Service Management platform. The previous system faced performance limitations that impacted the productivity and efficiency of the ETS Service Desk staff, and it lacked the scalability required to meet the increasing demands of the Service Desk's service management processes. The new system has significant enhancements in usability, design, and performance, providing the necessary improvements to better support the Service Desk’s operations.

By the end of 2024, ETS will have completed its first full year using the new IT Service Management platform. Since the migration, ETS has handled approximately 6,000 service tickets, demonstrating the system's capacity to efficiently manage the increasing volume of requests. The transition has provided notable benefits, including faster ticket resolution times, improved user satisfaction, and greater scalability to meet future needs.

Optimizing IT Support for Government: Increased Service Desk Positions

As the state assessed its IT consolidation plan under Act 179, ETS recognized the need to increase staffing within its Service Desk to support and manage the expanding areas of service management and end-user IT support.

The ETS Service Desk plays a vital role in supporting all executive branch customers, primarily assisting IT Coordinators across departments, and delivering shared services to approximately 12,000 state employees statewide. However, the Service Desk has been staffed by only two full-time employees and is supervised by a section manager who also oversees the Public Information Access Section, which is primarily responsible for managing the state's public websites and other web services. This structure highlighted the need for a dedicated manager to focus specifically on IT Service Management and customer support. The addition of this role will improve operational efficiency, enhance service delivery, and ensure more effective management of the growing demands for IT support.

During the 2024 Legislative Session, ETS successfully secured approval for two additional Service Desk positions, which will greatly enhance its ability to support state operations and improve IT service delivery. A new Service Desk Manager role was created to oversee staff and operations, with a focus on strengthening IT Service Management capabilities and advancing ETS’s role as a provider of shared IT services. Additionally, a new Help Desk Specialist position was established to address the growing volume of service tickets and provide specialized expertise in managing endpoint and mobile device services across the state. These strategic additions will improve service efficiency, reduce ticket resolution times, and support the continued expansion of shared IT services. ETS anticipates filling these positions in 2025, which will further enhance the department’s ability to meet the increasing demands of state employees and agencies.

Optimizing IT Support for Government: Improved Service Desk Processes

In 2024, the ETS Service Desk implemented several key advancements to improve the delivery of IT support. Automated workflows were developed within the new IT ticketing system, allowing tickets to be routed efficiently to the appropriate teams across the organization. Additionally, ETS began building a technical service catalog to enhance customer interactions with shared services, increase awareness of ETS-provided services, and make access to these resources more intuitive and searchable. The Service Desk is also standardizing customer and internal documentation, creating a

centralized knowledge base within the new IT Service Management (ITSM) platform to support consistency and efficiency.

The ETS Service Desk continues to expand its adoption of IT Service Management (ITSM) and IT Operations Management (ITOM) practices to deliver reliable, efficient, and proactive IT support. These efforts include streamlining incident management, service requests, and change control processes through ITSM, as well as developing automated monitoring and alerts to track the performance and availability of shared services. Together, these initiatives are enhancing service quality, improving system reliability, and strengthening the overall IT support framework for the State of Hawai‘i.

In 2025, ETS will focus on enhancing the Service Desk ticketing platform by expanding the Service Catalog to include additional services and streamline the service request process. Efforts will also prioritize refining service level descriptions to clearly define offerings, exclusions, and shared responsibilities. Additional knowledge and solution articles will be developed and published to improve documentation, making information more accessible and searchable for customers. ETS will continue to automate and integrate other IT systems with the Service Desk platform, optimizing alerting and triaging processes for IT infrastructure issues. Lastly, ETS will develop a comprehensive onboarding and offboarding process and workflow for employees, seamlessly managed through the Service Desk platform.

3.6. Build a Modern IT Workforce

This strategic pillar focuses on identifying & mitigating risks related to end-of-life legacy applications, continuity risks to paper/non-digital processes, resiliency risks related to Internet connectivity, risks to recovery efforts.

3.6.1. Digital Government Summit

The 2024 Hawai‘i Digital Government Summit, organized by Government Technology Magazine, was held on December 4 and is a collaborative forum to share information technology best practices, to hear about emerging technology trends, and to reflect on our future challenges.

Attendees connected with peers from the government and industry sectors to share ideas, best practices, and technology trends.

Governor Josh Green, M.D. welcomed the attendees followed by CIO Christine Sakuda, keynote speaker Anton Gunn on Leading with Vision, and Teri Takai, the senior vice president of the Center for Digital Government.

Working sessions topics included Balancing Innovation and Trust Through AI Governance; Essential Cybersecurity Resources; The IT Workforce Evolution; Driving Transformation: Modernizing Hawai‘i’s Enterprise Systems; Powered by Purpose: Hawai‘i’s Digital Front Door; Those Who Collaborate Win; Roadmap to the Cloud: and The Evolving Role of Technology: Driving Civic Innovation.

This professional development and learning event drew more than 300 participants from all levels of government in Hawai‘i.

3.6.2. Hawai‘i Annual Code Challenge (HACC)

Nine technology-focused teams comprised of high school students, college students, and young professionals took home $18,000 in awards during the ninth Hawai‘i Annual Code Challenge (HACC) on Nov. 22 at the University of Hawai‘i West O‘ahu.

The HACC is an annual educational event that solicits challenges from state departments and community groups and asks student, amateur and professional coders to develop technology applications to help solve specific problems. This year’s challenges ranged from improving the state’s IV&V reporting system, using AI for Human Resource needs, to creating a tool that helps students identify education paths to their ideal jobs.

About 120 people including friends, family and supporters watched as 19 finalist teams presented their solutions to four different challenges before a panel of judges. Prizes were $3,000 for first place, $2,000 for second place, and $1,000 for third place in three categories (high/middle school, college and professional). Table 4 in the appendix shows the first, second, and third place winners for each category.

The HACC was created to encourage engagement between Hawai‘i residents and the local technology community to modernize state functions and services for a more effective, efficient, and open government. Another objective of the hackathon is to strengthen the pipeline of the IT workforce and expand the tech industry in our state.

By the Numbers:

- 98 participants
- 31 high school students
- 32 teams created
- 21 projects submitted
- 19 team finalists

Challenges:

- DHRD – AI Agent Screening of Potential Applicants
- ETS - Standardized IT Project Review Web Application
- UH - HR Navigator
- UH - UH Pathfinder AI

The HACC would not be possible without the financial and in-kind support from the University of Hawai‘i and local and national technology businesses and educational and non-profit partners.

Sponsors: Microsoft, Google for Government, Amazon Web Services (AWS), Salesforce, eWorld Enterprise Solutions, Hawaiian Electric, IBM, Oracle, Hawai‘i Data Collaborative, and SHI Public Sector.

Partners: IMAG Foundation, the Hawai‘i Department of Education Computer Science Team, UH Mānoa Information & Computer Sciences, Hawai‘i Pacific University, Hawaii Tech Days, Education Pathway National Center, TORCH and the Chamber of Commerce Hawai‘i.

3.6.3. Recruiting

It is a priority for ETS to recruit and retain employees to ensure continuity of operations and to be able to provide support and services for Executive Branch departments to operate effectively and efficiently.

ETS staff have participated in the quarterly job fairs at the Neal Blaisdell Center and the University of Hawai‘i. In addition, ETS staff held on site job interviews at the Hawaii Technology Development Corporation Holiday Tech Job Fair in December.

ETS also organized the 9th Hawai‘i Annual Code Challenge (HACC) to promote interest with high school and college students in working for the state in IT.

To retain employees and upgrade skills, $75,000 was spent on licenses to a wide range of fields to develop IT staff’s knowledge and abilities.

A challenge to hiring in 2024 was that ETS had vacancies in its two HR positions, the HR Manager and the HR Assistant. The positions have since been filled.

ETS is continually assessing the organizational structure and types of job requirements and classifications to align with the state IT strategic plan and looking at work schedules and telework to entice new applicants.

3.7. Enhance Cybersecurity Protection

This strategic pillar focuses on expanding the statewide cybersecurity strategy to protect the State’s IT infrastructure and constituent data through adoption of cybersecurity industry best practices across the State’s IT systems. Target outcomes include safeguarding state and constituent information, reducing vulnerability to external threats, immediate system-wide threat response, security efficiency through use of AI/Machine Learning, and minimizing the storage of sensitive data.

3.7.1. Citizen Identity

The State of Hawai‘i is advancing its digital transformation efforts through the modernization of its citizen identity services that allow residents to access multiple government online services using a single account. A part of this modernization initiative, currently being referred to as the Citizen Identity solution, aims to streamline interactions between citizens and the state agencies by offering a unified login experience that is both convenient and secure. By eliminating the need for multiple accounts and passwords, the Citizen Identity solution significantly simplifies access to essential government services.

A key goal of the project is to enhance security for both users and government systems. The platform will integrate advanced features like multifactor authentication and real-time fraud detection to protect sensitive information and ensure only legitimate access. Future plans to implement identity verification processes will provide critical benefits for services requiting a high level of identity proofing, reducing the risk of fraud, identity theft, and unauthorized access to citizen and state systems and data. This initiative also fosters operational efficiency by consolidating identity management processes across agencies, reducing redundancies.

The Citizen Identity solution service represents the state's commitment to innovation and excellence in public service delivery. By creating a secure, efficient, and accessible digital identity solution, the state enhances its ability to serve its citizens while safeguarding public resources and fostering trust.

In 2023, ETS, in collaboration with the state's portal vendor, Tyler Hawaii, successfully developed a prototype integrating one eHawaii.gov application with the identity management platform managed by ETS at the time. This milestone demonstrated the potential for modernizing and unifying identity management across state services.

In 2024, ETS transitioned to a more advanced and robust identity management platform to better meet the evolving needs of the state. Development efforts were rechanneled to align with the new system, reflecting ETS's commitment to providing a secure and scalable solution. ETS continued its partnership with Tyler Hawaii to migrate more than 80 eHawaii.gov agency portals to the upgraded platform, with the full launch anticipated in early 2025.

For a listing of the applications to be integrated with Citizen Identity login services, please refer to Table 1 in the appendix.

BY THE NUMBERS

Number of citizen accounts being migrated: Roughly 1,000,000 user accounts

Number of government portals/applications being integrated with the Citizen Identity solution: Roughly 80 apps.

CHALLENGES

In 2020, the team initially selected Azure B2C to serve as the citizen identity management platform. However, as the team worked deeper with the platform, we were faced with several challenges and limitations with Azure B2C that prompted the recommendation to transition to ForgeRock Identity Cloud. Now rebranded as PingOne Advanced Identity Cloud, the ForgeRock Identity Cloud, after careful evaluation, had been selected as the citizen identity management platform moving forward. The ETS team had to make a weighted decision and worked with the Tyler Hawaii team to mitigate the impact to the Citizen Identity solution project.

In 2025, ETS plans to complete the integration and launch of all Tyler Hawaii managed citizen portals with the ETS Citizen Identity solution for single sign-on. ETS will continue to work with the departments to expand the Citizen Identity solution and evaluate fraud protection and identity proofing services.

3.7.2. Cybersecurity Month

In October, Governor Josh Green, M.D. proclaimed Cybersecurity Awareness Month in Hawai‘i, in recognition of the state's important role in identifying cyber threats, protecting our citizens from any attacks and responding quickly when threats occur.

The proclamation supports the state's continuing work on several cybersecurity initiatives such as promoting educational opportunities like CyberStart America and developing a skilled cyber workforce by working within lower- and higher-education communities.

Cybersecurity Awareness Month in Hawai‘i coincides with the national observance recognized by the U.S. Department of Homeland Security, the Multi-State Information Sharing and Analysis Center, and industry partners, which collectively encourage all citizens to learn about cybersecurity to put that knowledge into practice in their homes, schools, workplaces and businesses.

ETS held a series of meeting in October for all executive branch employees to support the state's cybersecurity defense. Topics included cybersecurity basics such as safe digital habits for daily use, the importance of strong passwords, and strategies for secure password management to help guard against unauthorized access.

We also covered identifying threat actors, safeguarding yourself and your family, and finding valuable local resources for cybersecurity support. Another meeting addressed essential strategies for data protection, online and physical security, and phishing awareness.

ETS continues working to enhance the cybersecurity of critical infrastructure and improve coordination between the counties, state and federal government.

3.7.3. Elections

The Department of Homeland Security has designated elections systems as a critical infrastructure. ETS provides the cybersecurity monitoring, network management, and virtual server support to facilitate statewide elections.

ETS provides the computing, communication network infrastructure, and many layers of cybersecurity protections for the State Office of Elections digital assets.

As the processes and systems that collect and count votes are not exposed to the Internet at any time, voters can be confident that election counting results are accurate and safe.

Of 860,868 registrants in the 2024 general election, 483,078 voted by mail and 39,158 in voted in person for a total of 522,236 voters.

3.8. Optimize the Responsible Use of Data & AI

This strategic pillar focuses on maximizing the value of data by designing, implementing and governing state systems for data stewardship, sharing, and public use, and implementing and governing AI using. Target outcomes include making state data more valuable for economic and public purposes; improving transparency and accessibility by ensuring that appropriate state-stored/managed data is available to the public and to other state departments, agencies, and users; and increasing awareness so that all stakeholders know what data accessible and why certain data is should not be accessible.

3.8.1. Data & AI Mission, Vision, and Strategy

In October 2023, the Green Administration and ETS named Rebecca Cai as the state's first Chief Data Officer (CDO). One of Cai's first priorities as CDO was to work with the State Data Task Force to create and publish a vision, mission, and strategy for data and AI. The vision, mission, and strategy are intended to drive trust, transparency, citizen satisfaction, and innovation by improving security, quality, accessibility, and accountability regarding data and AI. The strategy is published online at https://data.hawaii.gov/#dataStrategy and will be reviewed annually going forward. This is updated in 2025 with approval from the State Data Task Force.

3.8.2. Data & AI Policies, Standards, and Guidelines

Beyond the foundational vision, mission, and strategy for data and AI, statewide policies, standards, and guidelines are necessary to consistently manage, govern, and use data and AI technologies.

In 2025, we updated the Data Quality Standards. In addition, we updated and published the Data Classification Standards, the Data Catalog Standards, the Data Privacy Standards, the Data Retention Standards, the Open Data Standards, and the GenAI Assistance Technology Standards which were approved by the Data Task Force in December of 2024. These documents are all published on data.hawaii.gov for statewide access.

Future policy efforts will continue to align with federal requirements, with yearly review and update if needed for the existing policies and standards.

3.8.3. Data & AI Governance

One of the first steps toward breaking down data silos within the state and promoting data sharing is to establish a shared understanding of who owns what data and what access controls need to be in place to ensure data protection and compliance. These goals are accomplished through a data & AI governance framework, an effort which includes identifying what data each department has, who is the business owner of each data set, what access controls are required, and what the quality of the data is, and how to responsibly use AI to improve efficiency and service.

In 2025, an updated statewide data & AI governance framework was created with approval from the State Data Task Force, and a data & AI governance working group was established with a designated data lead from each department. In addition, we created tools to collect and track knowledge sharing topics and departmental data/AI use cases. A statewide SharePoint site was established to facilitate collaboration and documentation.

Current information related to this effort is available at https://data.hawaii.gov/#governance.

3.8.4. Data & AI Statewide Platforms

Another step toward breaking down data silos within the state and across departments is to implement a data sharing platform. In 2024, ETS began to collaborate with departments on this concept. This shared data platform would not replace any departmental data systems; instead, it would provide capabilities to secure and govern data, enable data owners to appropriately manage data access, ensure that all data follow the same standards and can easily be merged, and provide AI/ML capabilities for simulations and decision support.

In 2025, ETS received funding approval for this effort, so we conducted competitive assessments of Master Data Management, Data Governance, and Lakehouse platforms; completed proofs of concept; piloted tools; and started procurement planning. We communicated this statewide architecture design with departments and the State Data Task Force.

3.8.5. Data & AI Literacy Training

Because data & AI is embedded in the daily activities of all state workers, it is critical that all staff understand how to handle data & AI properly. This includes topics like data privacy, data quality, and how to evaluate whether data & AI is trustworthy. To support staff education, a data literacy framework was developed in 2024, encompassing 9 different topics.

In 2025, ETS added AI literacy training. First, ETS collaborated with DHRD to create vendor offered AI trainings to employees through DHRD offered training channels. Second, we expanded staff development efforts by offering AI literacy training to state employees on data.hawaii.gov, helping them use AI tools effectively and safely. Last, we created business focused AI training including evolution of data and AI, AI risks and mitigation methods, the different categories of AI, and what

kinds of business use cases are applicable to each category. We provided this business focused AI overview training to departmental leads and Data &AI Governance Working Group members which include data & AI leads from all departments. We plan to offer this business focused AI training to more audience within each department with the support from each department's data A& lead. In 2026.

3.8.6. Data & AI to Improve Efficiency and Inter-Operability

Following the 2023 wildfires on Maui, conversations began to take place regarding how data can be leveraged to better support disaster preparedness. Data availability, timeliness, and quality are all critical to disaster preparedness, and challenges related to how to securely share data and maintain compliance need to be addressed as well. In 2025, ETS supported data sharing discussions with the Office of Recovery and Resilience, the Office of Wellness and Resilience, and HI-EMA regarding what data to bring together for disaster readiness. A proof of concept to support disaster readiness through data and AI was successfully conducted in 2025.

In 2025, departments look for ways to improve efficiency using AI. ETS conducted several AI pilots supporting different business needs to improve efficiency, improve customer service, and promote data sharing.

3.8.7. Data & AI Summit

In May of 2025, Hawai‘i hosted the second State Data & AI Summit in the nation. This summit brought together over 200 data-focused public sector professionals with leading industry partners to connect on innovative approaches to managing, governing, and using data empowered by AI to complex decision-making. Summit attendees had the opportunity to learn about leading trends, share success stories and lessons learned, participate in cross-departmental discussions, and help position the state better utilize data and AI to make decisions and serve constituents.

Building on this success, the third Data & AI Summit will be held in 2026. Additional information about the 2025 State Data & AI Summit can be found at https://events.govtech.com/Hawaii-Data-Summit.

3.8.8. Open Data Initiatives

In 2025, ETS conducted a comprehensive analysis of departmental open data portals and their alignment with the statewide portal (data.hawaii.gov), performed cross-state benchmarking to identify best practices, and carried out gap analyses on update frequency, accessibility, and quality. ETS exploring to develop a forward-looking strategy for open data publishing, governance, and sustainability. ETS plans in 2026 to explore ways to enhance the statewide open data ecosystem with funding approval. This includes expanding the publication of high-value datasets, improving searchability of information from state open data sets, and exploring ways to automate data set update.

4. AWARDS AND RECOGNITION

In 2024, ETS and other executive branch departments were recognized both locally and nationally for their IT projects to improve state services.

4.1. National Technology Recognitions

This strategic priority focuses on improving the statewide IT service lifecycle management, managing IT architecture in each department, improving IT vendor delivery, and defining better architecture & technology standards.

4.1.1. Digital States Survey Grade of A-

For the second consecutive time, the state of Hawai‘i has been ranked among the top states nationwide for IT practices receiving an overall grade of A- in the Center for Digital Government’s (CDG) 2024 Digital States Survey.

The 2024 Digital States Survey evaluates states’ use of technology to improve service delivery and constituent engagement, increase capacity, streamline operations, and achieve other state priorities—assigning a letter grade based on quantifiable results.

The CDG said that Hawai‘i maintains its A- grade in this year’s survey in part due to a commitment to the fundamentals of IT modernization as well as resilience in the face of adversity, including the technological support response to the deadly Maui wildfires in 2023. CDG further recognized Hawaii for Outstanding Achievement for processes and plans to address the need for a skilled IT workforce today and into the future.

The biennial survey awards were presented during the Center for Digital Government Awards Program in September.

A national listing of all 50 states’ grades is available at https://www.govtech.com/digital-states-survey-2024-results-announced

5. LOOKING AHEAD TO 2026

In 2025, ETS and other executive branch departments were recognized both locally and nationally for their IT projects to improve state services.

5.1. Strategic Plan Refresh

Updating the State of Hawai‘i IT Strategic Plan is a statutory requirement every four years – with an update due before the beginning of the 2025 Legislative Session.

An up-to-date IT Strategic Plan provides a clear, forward-looking roadmap to align IT investments and initiatives with the state’s priorities. It ensures efficient resource allocation, enhances cybersecurity, supports modernization efforts, and improves service delivery to the public.

By setting measurable goals and adapting to emerging technologies, the strategic plan maximizes operational efficiency, fosters innovation, and prepares the state to meet future demands effectively.

Starting in March 2024, a project charter and project plan were established to update the state’s IT Strategic Plan. ETS ITG then conducted an analysis of the success of the state’s existing IT Strategic Plan, which was established in 2019 and went through a minor update in 2021. This analysis was used in subsequent meetings and workshops to formulate a new IT Strategic Plan. ETS partnered with research vendor Info-Tech to conduct separate IT strategic planning interviews and workshops with both the state’s business leaders and the state’s IT leaders.

In 2025, ETS will continue to work with the executive branch departments to establish the departmental IT Strategic and Operational Plans, in alignment with the State IT Strategic Plan.

The new State IT Strategic Plan is available online at https://ets.hawaii.gov/reports/.

6. APPENDICES

The IT Consolidation Report and the State IT Strategic Plan are available online at https://ets.hawaii.gov/reports/.

Table 1: Applications To Be Integrated with Citizen Identity Login Services

HIC - App - Lala (eHawaii.gov User Management System) HIC - App - Notification Center
CCHNL - Office of the City Clerk - Legislative Document Access
AG - HCJDC - Covered Offender Registry
AG - HCJDC - Bulk Covered Offender Registry
AG - HCJDC - Sex Offender Information Management System
AG - HCJDC - eCrim
DLIR - HIOSH - Inspection and Permitting System
Kauai - Finance - Real Property Tax Payments
DAGS - OIP - State Calendar System
DLIR - R&S - Green LMI
DOH - DCAB - Placard Application and Registry
DOH - TBB - Tuberculosis Control Program DOH - TBB - Televisit
DOH - WWB - Wastewater IWS Filing
HIC - App - Gamify
HIC - App - RSS Alerts
AG - HCJDC - HIJIS Federated Query System
DBEDT - CID - Open and Accessible Film Permit
DBEDT - FTZ9 - Invoicing & Payment System
DCCA - OCP - Mortgage Foreclosure Dispute Resolution (MFDR)
DCCA - OCP - Public Sale Notice
DCCA - REB - AOAO Condominium Association Registrations
DLNR - APO - Civil Resource Violations System (CRVS)
DLNR - DAR - Freshwater Game Fishing License
DLNR - DOFAW - Commercial Vessel Permits
DLNR - DOFAW - Hunt Lottery Drawing System DLNR - DOFAW - Hunt Lottery Registration / Hunt Application System DLNR - Hunter Ed - Online Course Registration System
DLNR - DOFAW - Hunting Licenses
DLNR - DOFAW - Na Ala Hele Trail & Access System
DLNR - Land Div - Wiki Permits

DBEDT - Aloha Stadium Online Store DOE - Commerce Platform
Judiciary - General - Mobile App
Judiciary - General - eBench Warrants (eBW)
Judiciary - VIPS - Volunteer in Public Services
AG - CRD - Notary Application
AG - Tax & Charities - Charity Registration Retrieval System
AG - Tax & Charities - Charity Registry
AG - Tax & Charities - Solicitor Registration
AG - Tax & Charities - Special Invoice Payment System HIC - App - Invoice System
B&F - ERS - Self-Service Benefits Portal
B&F - Unclaimed Property - Unclaimed Property Search
DAGS - SPO - HANDS - Hawai‘i Awards & Notices Data System
DAGS - SPO - Hawai‘i Compliance Express (HCE)
DAGS - SPO - HIePRO (eProcurement System)
DBEDT - BDSD - Enterprise Zone Forms
DOH - OMCCR - Medical Cannabis Registry
DOH - OHSM - Vital Records Ordering and Tracking System
DPS - NED - Controlled Substance Registration System
LG - General - Name Change
Appointment Service (Notary, Road Test, etc)
DBEDT - CID - Tax Credit Hub
DLNR - DOFAW - Trails Day Use Permits DLNR - DSP - Statewide Camping Reservation System Hawai‘i - Parks & Recreation - Big Island Camping Permits
DOE - McKinley Community School for Adults (MCSA) Online Payments
DOE - Waipahu Community School for Adults (WCSA) Registration and Payment System
DOH - DCAB - Facility Access Plan Submission and Review System
ETS - App - eRecording
HIC - App - Payment Platform AG Collections Payments (Payment Platform) DLIR - HIOSH Payments (Payment Platform) DLNR - BOC - BOC Payment Platform Hawai‘i - Liquor Control - Gross Liquor Sales Percentage Fee Kauai - Liquor Control - Gross Sales Payments (Payment Platform) DLNR - DOFAW - Tree Seedlings
Location Service (Comm Vess)
DCCA - BREG - Agent Search
DCCA - BREG - Annual Business Filings
DCCA - BREG - Business Entity List Builder
DCCA - BREG - Document Search and Ordering
DCCA - BREG - Hawai‘i Business Express (HBE)

B&F - EUTF - Payment Processing
CCHNL - HPD - eBW Web Service Hawai‘i - HCPD - eBW Web Service Kauai - KPD - eBW Web Service
CCHNL - Office of the City Clerk - Online Ballot Request System
DBEDT - CID - Standard Film Permit (NOT LIVE YET)
DBEDT - Energy - Solar Water Heater Variance
DLIR - HMOAB - Online Certification
DLNR - DSP - Special Use Permitting System (SUPS)
DOH - ADAD - Clean and Sober Homes Registry
Hawai‘i - Liquor Control - Licensing & Permitting Application
Hawai‘i - Parks & Recreation - Mauna Kea Group Application
Hawai‘i - VRL - Road Test Scheduler
HIC - App - Kala Payment Module (Stored payments)
HIC - App - Subscriber Agreement Form
HIC - App - Access Hawai‘i Committee Document Repository System
Kauai - Liquor Control - Licensing and Permitting
Maui - Liquor Control - Licensing and Permitting
DAGS - Surplus - Public Auction
DOT - Airports - HNL Surplus Auction

Table 2: Cases of Paper Used for Legacy Print Services

Month	2020	2021	2022	2023	2024	2025
January	105	102	84	63	62	55
February	75	136	54	48	50	43
March	88	147	68	55	50	44
April	205	119	56	57	27	44
May	133	99	58	40	69	42
June	104	105	68	49	48	51
July	173	105	63	55	60	45
August	94	85	58	64	67	42
September	128	145	56	51	36	46
October	108	16	52	53	51	52
November	120	69	69	57	37	
December	119	66	81	53	56	

Table 3: IT Portfolio Governance Metrics

Desired Outcomes	Objectives	Key IT Portfolio governance metric	7/23/2020	10/22/2020	10/28/2021	11/1/2024	12/2/2025
Proactive and transparent portfolio planning and management through system life cycle	Engage IT Coordinators	# of applications inventoried (also track per department)	498	497	520	742	
		% of applications roadmapped (also track per department)	59.0%	87.0%	86.9%	94.6%	
		# of planned or active projects inventoried (also track per department)	784 *	274	299	630	
		% of projects roadmapped (also track per department)	15.9% *	25.1%	55.5%	80.8%	
		% of active LeanIX users logged in during the past 3 months	39.5%	34.0%	48.2%	50.0%	
Transparency into cost, schedule and performance and re-baselining of projects	Manage IT project costs & cost overruns	% of active LeanIX projects with Capex and/or Opex $ values	92.8% *	83.5%	64.9%	94.2%	
	Manage IT project schedule	% of active projects with at projected completion established	NA	NA	50.3%	72.3%	
		% of active LeanIX projects with RAG status	14.0% *	10.2%	12.4%	14.2%	
	Provide public transparency into IT projects	% of active IT projects (& project stage) visible to the public	NA	100.0%	100.0%	100.0%	100.0%
IT systems are well-engineered and appropriately designed for their intended use	Advance cloud-computing	% of applications with hosting data entered	NA	NA	81.3%	94.3%	
		# of cloud (IaaS, PaaS, SaaS) applications	39	72	99	360	
		% of cloud applications (IaaS, PaaS, SaaS) from those with hosting data entered	NA	22.0%	23.4%	46.1%	

Table 4:

Results	Challenge(s)	Team Name	Captain	Affiliation	Advisor
Middle/High School					
1	ETS - Project Review App	MHS	Danica Ibanez	Mililani High School	
2	UH - Pathfinder AI	CottonBytes	Khaen Dumbrique	Waipahu High School	
3	UH - HR Navigator	Kimchi Bowl Noodles	Jared-Jomar Utleg	Waipahu High School	
College					
1	ETS - Project Review App	OPEN TO WORK	Junle Yan	UH Manoa	N/A
2	UH - Pathfinder AI	Nintendo DS	Samantha Limon	UH Manoa	N/A
3	DHRD - AI Screener	3 Lil Minions	Lionel Derrick Roxas	UH Manoa	N/A
Professional					
1	UH - Pathfinder AI	Interstellar	Malisa Lo	N/A	N/A
2	DHRD - AI Screener	DarkMode	Micah Tilton	N/A	N/A
3	UH - Pathfinder AI	Logimoca	Sadie Flick	N/A	N/A