OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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December 21, 2018

The Honorable Ronald D. Kouchi,
  President, and
   Members of The Senate
Twenty-Ninth State Legislature
Hawaii State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Scott K. Saiki,
  Speaker, and
   Members of The House of Representatives
Twenty-Ninth State Legislature
Hawaii State Capitol, Room 431
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

Pursuant to sections 27-43(a)(6) and 27-43(e), Hawai`i Revised Statutes (HRS), Chief Information Officer (CIO) of the State of Hawai`i submits this report on the status and implementation of the State information technology (IT) strategic plan; the activities and programs under the authority of the CIO and the IT Steering Committee; and the expenditures of all moneys received from all sources and deposited into the IT Trust Account and the Shared Services Technology Special Fund.
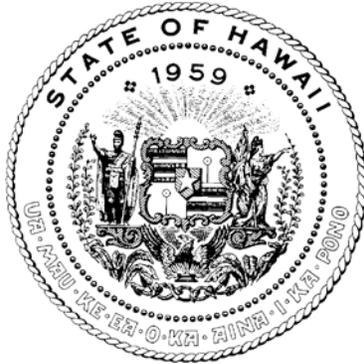
In accordance with HRS section 93-16, this report may be viewed electronically at http://ets.hawaii.gov (see "Reports").

Sincerely,

TODD NACAPUY
Chief Information Officer
State of Hawai‘i

Attachment (1)

2018 ANNUAL REPORT

OF THE

CHIEF INFORMATION OFFICER,

STATE OF HAWAI`I

SUBMITTED DECEMBER 21, 2018

TO THE

THIRTIETH LEGISLATURE

Pursuant to sections 27-43(a)(6) and 27-43(e), Hawai`i Revised Statutes (HRS), Chief Information Officer (CIO) of the State of Hawai`i Todd Nacapuy submits this report on the status and implementation of the State information technology (IT) strategic plan; the activities and programs under the authority of the CIO and the IT Steering Committee; and the expenditures of all moneys received from all sources and deposited into the IT Trust Account and the Shared Services Technology Special Fund.

Given today's institutional and budgetary limitations, CIO Todd Nacapuy and his executive team, with input from other departments and agencies, reassessed in 2015 the existing State IT plans and developed new IT directions and programs consistent with the Ige Administration's results-driven strategy: to focus on targeted initiatives that stabilize the State's IT infrastructure and systems and to improve the efficiency of government operations and services by delivering immediate benefits using available resources.

Under the CIO, ETS' goals are to:
- identify, prioritize, and advance programs and projects with the greatest potential to increase efficiency, reduce waste, and improve transparency and accountability in State of Hawai`i government; and
- provide efficient, effective, and available information technology (IT) enterprise services and support in the areas of data center, cybersecurity, computing (mainframe and open systems), telecommunications, application development, and web-based services for the purpose of assisting State government agencies in fulfilling their current and future business mission and objectives; and
- implement the goal of creating 80,000 new tech jobs earning more than $80,000 a year by 2030 through the integration of innovation and technology to meet Hawaii's sustainability goal of 100% renewable energy by 2045.

STATUTORY AUTHORITY AND ORGANIZATIONAL STRUCTURE
Pursuant to section 27-43(a), Hawai`i Revised Statutes, all functions of the programs formerly associated with the ex-Office of Information Management and Technology and ex-Information and Communication Services Division are consolidated within the new Office of Enterprise Technology Services (ETS) as led by the CIO, effective July 2, 2016.

As amended by section 27-43, Hawai`i Revised Statutes, ETS' statutorily mandated duties include the following:

Summary	Statutory Reference
Develop, implement, and manage statewide IT governance and State IT strategic plans, as well as develop and implement statewide technology standards. Section 27-43, Hawai`i Revised Statutes, expanded the CIO authority to work with each executive branch department and agency to develop and maintain its respective multi-year IT strategic and tactical plans and roadmaps, and coordinate each executive branch department and agency's IT budget request, forecast and procurement purchase to ensure compliance with the department or agency's strategic plan and roadmap and with ETS' IT governance processes and enterprise architecture policies and standards. ETS also assumed functions of the former ICSD: provide centralized computer information management and processing services; coordination in the use of all information processing equipment, software, facilities, and services in the executive branch of the State; consultation and support services in the use of information processing and management technologies to improve the efficiency, effectiveness, and productivity of State government programs; and establish, coordinate, and manage a program to provide a means for public access to public information and develop and operate an information network in conjunction with overall plans for establishing a communication backbone for State government.	HRS section 27-43
Provide for periodic security audits of all executive branch departments and agencies regarding the protection of government information and data communication infrastructure.	HRS section 27-43.5
Set policies, procedures and standards for each executive branch department's reasonable efforts to make appropriate and existing electronic data sets maintained by the department electronically available to the public through the State's open data portal at data.hawaii.gov or successor website.	HRS section 27-44
Provide services through centralized web portal and Internet presence (hawaii.gov) that allow citizens to conduct business electronically with the government, in accordance with statute (i.e., Access Hawai`i Committee).	HRS chapter 27G
Provide guidance to protect personal information that is collected and maintained by State and county government agencies (i.e., Information Privacy and Security Committee).	HRS chapter 487N

The organizational structure was proposed in 2017 and was approved by the Comptroller in September 2018. ETS' program objectives are as follows:

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

Enterprise Architect Branch — Develop, implement, and manage statewide technology policies, guidance, and standards; provide departmental guidance for business and IT decisions that supports the State's strategic plan and investments and improves the ability to deliver responsive, cost-effective government functions and services.

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

Network Branch — Provide statewide telecommunication services (e.g., data network, radio network, and telephone systems) for daily business operations of the State of Hawai`i's executive, legislative, and judicial branches, including telecommunications interfaces to federal and county governments; provide land mobile radio communications for public safety entities and radio microwave network connection interfaces to other county and federal agencies for first responder and emergency communications; provide technical support on voice and telephone systems to State government entities.

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

Program Management Branch — Provide management, business consulting services, and business applications support to agencies to effectively develop and maintain new technology applications and improve service delivery through effective integration of technology solutions; provide program management development support for enterprise technology programs and projects (e.g., enterprise payroll).

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

Systems Services Branch — Provide systems administrative and operational support for the IBM Mainframe (Z) System, Enterprise backup and restore, Enterprise UNIX (P), mainframe (Z) user access, FTI compliance, and disaster recovery.

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

TOP ACCOMPLISHMENTS OF 2018

Client Services Branch — Actively supported the Hawai`i Annual Code Challenge in partnership with the Hawai`i Technology Development Corporation, and Hawai`i Pacific University to engage the local tech community in government modernization and expose individuals within Hawai`i's IT workforce to State career opportunities. Completed a six-month paper reduction program which reduced paper use by 20 percent, translating to a savings of one million sheets of printed paper. Implemented Software AG's N2O change management software and procedures for the Department of Labor and Industrial Relations, Unemployment Insurance Division's computer applications.

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

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

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

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

Program Management Branch — As part of DAGS Accounting Division's Enterprise Payroll and Time & Attendance Modernization (HawaiiPay) project, accomplished successful payroll Go-Live implementation for Groups 1 (DAGS and DHRD) and 2 (all other remaining jurisdictions, departments, and agencies – except UH and DOE) to the new Cloud-enabled services environment.

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

Systems Services Branch — Continued to provide high availability to the IBM Mainframe (Z System), enterprise UNIX, and enterprise backup and restore environments. Continued to upgrade operating system and middleware to come into compliance with the IRS Publication 1075. For disaster recovery, the mainframe "D" copy services are fully functional, a prerequisite for non-disruptive testing of the mainframe (Z) production environment. Forensic analysis of the chargeback process was conducted with consultants alongside members of our systems personnel and ETS fiscal with new procedures to make the process more efficient and streamlined.

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

EXECUTIVE BUDGET REQUEST FOR FISCAL BIENNIUM 2019 - 2021

To facilitate continued progress as well as operate and maintain State IT infrastructure and related services, ETS is requesting the funds described below. (Also described in Executive Budget Request for Fiscal Biennium 2019 -2021.

While ETS is operating as one organization in accordance with section 27-43(a), Hawai`i Revised Statutes, the office maintains two budget IDs previously associated with the former programs (AGS 130 and AGS 131). To facilitate cost- transparency, ETS will continue to maintain these budget IDs, re-described in the sections that follow.

AGS 130: Enterprise Technology Services – Governance and Innovation
Program objectives include providing governance for executive branch IT projects to provide the essential State oversight necessary so that intended goals are achieved and positive ROI is realized for the people of Hawai`i. The program also seeks to prioritize and advance innovative initiatives with the greatest potential to increase efficiency, reduce waste, and improve transparency and accountability in State government.

Budget Request:

- An increase of $150,000 in FY20 the Shared Services Technology Special Fund for payroll costs. The fringe benefit rate has increased significantly in the last several years, currently over 60%, which has significantly increased payroll expenses.

- $150,000 in FY20 for a Mobile Device management software to ensure devices are kept up to date, patched and could be wiped in the event the device is lost or stolen.

- $1,038,240 in FY20 and $1,263,902 in FY21 for various cybersecurity software subscriptions to accomplish protecting our network from various cybersecurity threats.

- $3,000,000 in FY20 and $218,000 in FY21 in CIP funds for cybersecurity upgrades to augment current infrastructure to more effectively and efficiently combat cybersecurity threats.

- $1,800,000 in FY20 in CIP funds to replace end of life Uninterruptible Power Supply (UPS) equipment. New equipment and electrical infrastructure is needed to continue normal operations for the State of Hawai`i.

AGS 131: Enterprise Technology Services – Operations and Infrastructure Maintenance

Program objectives include support of the management and operation of State agencies by providing effective, efficient, coordinated, and cost-beneficial computer and telecommunication services such that State program objectives may be efficiently achieved.

Budget Request:
- $365,000 in FY20 for upgrades to the DLNR GreenNet and connection to HIWIN to enhance, restore and enable radio and interoperable communications within and outside of DLNR's existing network.

ACTIVITIES AND PROGRAMS

In fulfillment of these goals, the primary objectives for the biennium are summarized in the following sections:

Client Services Branch — Continue to improve the efficiency of State government by converting hard-copy paper reports to electronic documents, which will reduce storage requirements, facilitate sharing of information, and reduce paper use. Create or participate in pilot projects and proof of concepts to gain experience in new technologies and determine potential applicability within the State. Support the Hawai`i Annual Code Challenge program, which results in a number of proofs of concept proceeding beyond development to implementation and launch.

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

Enterprise Systems Branch — Implement successful PeopleSoft Payroll Go-Live for Group 3 (UH and DOE), as part of the Payroll Phase of DAGS Accounting Division's HawaiiPay project.

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

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

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

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

Systems Services Branch — With D-Copy Services now operational at the disaster recovery site, we can now commence non-disruptive testing of the production volumes. A new test logical partition is being put up using the latest versions of COBOL, CICS, Software AG ADABAS/Natural, and DB2. This is being done to move these upgrade projects faster. Implementation of a PC based interface into the chargeback system to allow non-technical personnel to be able to retrieve their own reports and create invoices. The enterprise backup and restore system to introduce a new storage pool structure called container pools and the use of Cloud Object Storage to eliminate the need for tape and the ability to vault archive information to a S3 provider.

Department Dashboard

In accordance with section 27-43, Hawai`i Revised Statutes, requiring departments to develop and maintain their respective multi-year IT strategic and tactical plans and roadmaps as part of the State's overall IT strategic plans, ETS launched the Hawaii Department Dashboard in January 2017. The Dashboard provides an overview of 16 executive State departments' IT projects and timelines, status and financial breakdowns. The Dashboard tracks more than $450 million in spend and more than 600 projects. The Dashboard can be found on the ETS website's home page, on the Hawaii Department Dashboard icon.

The IT Roadmap plays a significant part of the overall planning, budgeting, and execution process, and contains information on all significant IT activities for executive branch departments over a period of time. Activities are aligned with business lines, departments' priorities, ETS initiatives, and ultimately the Governor's priorities. Data includes information on projects, on-going processes, budget, schedule, and status.

Recognitions

ETS has been recognized both nationally and globally for its innovation, initiatives and outstanding work in advancing the State of Hawai`i.  Likewise, CIO Todd Nacapuy has been recognized for his leadership and the work he's done to move Hawai`i forward.

The awards are as follows:

- The Hawai`i Annual Code Challenge (HACC) has been awarded the State IT Innovation of the Year award by StateScoop, the leading government IT media company in the nation's capital. HACC was selected among 49 finalists from across the country for the top award.

- The State's Hawai`i Department Dashboard has been recognized with the first ever Chaucer Digital Innovation Award in the North America category. An initiative by the Office of Enterprise Technology Services (ETS), the Hawai`i Department Dashboard is a strategic roadmap that uses digital visualization to improve the State's IT governance process and promote organizational change. It also aids with communications and planning of IT projects across State executive branch departments.

- Hawai`i is ranked first among fifty states in emerging technologies/innovation, according to the Center for Digital Government's 2018 Digital States Survey. It also ranked second for its exemplary work in support of collaboration. In addition to those rankings, Hawai``i received an overall grade of B+ in the Digital States Survey, up from B in 2016.

- CIO Todd Nacapuy was named Business Executive of the Year for the Business Achievement Awards presented by Pacific Edge Magazine. The award recognizes an executive who has made a great impact on their organization through innovation, integrity and growth.

- CIO Todd Nacapuy was a finalist in Pacific Business News's Business Leadership Awards. The award

recognizes those with a track record of business excellence, leadership, and community involvement.

- CIO Todd Nacapuy was awarded the United Filipino Council of Hawaii's Progress Award in Information & Technology. The award is given by the statewide organization for the Hawaii's Filipino community and recognizes Filipino residents in their field of expertise, as well as for their civic service.

- IT STEERING COMMITTEE

Pursuant to HRS section 27-43, the IT Steering Committee was established to advise and support the CIO by:
- Assisting the CIO in developing and implementing the State IT strategic plans;
- Assessing executive branch departments' progress in meeting the objectives defined in the State IT strategic plans and identifying best practices for shared or consolidated services;
- Ensuring technology projects are selected based on their potential impact and risk to the State, as well as their strategic value;
- Ensuring that executive branch departments maintain sufficient tools to assess the value and benefits of technology initiatives;
- Assisting the CIO in developing State IT standards and policies; and
- Clarifying the roles, responsibilities, and authority of ETS, specifically as it relates to its statewide duties.

Committee Membership
Considerable effort was expended over the past two years to facilitate the filling of vacancies on the ITSC. As of the date of this report, all council vacancies have been filled.

IT Steering Committee Membership Roster (as of December 18, 2018)

Name	Affiliation	Appointed By
Todd Nacapuy (Chair)	Office of Enterprise Technology Services (CIO)	*Ex Officio Member*
Benjamin Ancheta	Ekahi Health System	Senate
Jared I. Kuroiwa	Upspring -AIO Digital	Senate
Aryn H.K. Nakaoka	Tri-net Solutions	Senate
Michael Nishida	First Hawaiian Bank	House
Christine Sakuda	Transform Hawai'i Government	House
Kelly Taguchi	Spectrum	Senate
Kevin Thornton	Hawai'i State Judiciary	Chief Justice
Rep. Kyle Yamashita	Hawai'i State Legislature	House
Marcus Yano	SystemMetrics Corporation	House
Garret Yoshimi	University of Hawai'i	Governor

Assessment of the CIO

The assessment of the CIO was created at his request and the decision to evaluate him was solely made at his discretion. The CIO believed it was important that his performance be evaluated each year to ensure that he was creating value for tax payers and ensuring the maximum ROI for tax dollars being spent on IT. Future CIO's may not elect to be evaluated by the ITSC.

The committee's intent, when approving the metrics in May 24, 2018, was to set "stretch" metrics that are challenging. The ITSC evaluated the CIO based on several metrics, organized under the seven priority areas: IT Governance, IT Workforce Development, Cybersecurity, Enterprise Programs and Projects, Services-Oriented Infrastructure, Open Data, and Cost-Transparency. It should be noted that the success of meeting certain metrics may not entirely be under the control of the CIO and may also depend on the availability of adequate funds and resources, as well as other factors.

On December 13 and 20, 2018, the committee met and evaluated the State CIO based on the thirty-one (31) metrics below, organized under seven priority areas stated above. Supporting data and reference materials for the metrics were provided to the committee, as well as in-person explanations and online demonstration of data.

The committee used the following scoring framework for scoring:

A = Completed 100% on time, on budget
B = Completed but not on time, on budget (up to 10% variance)
C = Completed but not on time, on budget (11-20% variance)
D = Completed but not on time, on budget (greater than 20% variance)
F = Not at all
I = Not scored (with justification)

The committee arrived at final scores by consensus, and average grades for each priority area were based on value judgments of each of the individual metric grades under a particular priority area. The CIO wanted to note that the ITSC graded items no. 1 and 2 under the IT Governance metric an F due to the lack of participation from DOE, although exceptional outreach and efforts were made to communicate with the department to comply with Administrative Directive No. 15-02 and HRS section 27-432(a).

The IT Steering Committee's assessment of the CIO follows:

IT GOVERNANCE

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
1	Expand IT governance processes to include the Department of Education (DOE), pursuant to Administrative Directive (AD) No. 15-02, "Program Governance Requirements for Act 119 and Enterprise Information Technology Projects"	Percentage of departments participating	12/1/18	F	16 out of 17 Departments actively participating. See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
2	Expand IT annual budget request process to include participation by the Department of Education, in accordance with HRS section 27-43(a)(5), requiring departments to maintain their respective multi-year IT strategic and tactical plans and roadmaps as part of the State's overall IT strategic plans	Percentage of departmental roadmaps maintained	12/1/18	F	16 out of 17 Departments actively participating. See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
3	Reduce costs of IT projects reviewed under IT governance processes (AD No. 15-02)	Percentage of reduction relative to overall IT costs: 10 percent	12/1/18	A	Total cost reduction, avoidance, efficiency gains approx. 17% of all approved IT spend requests – total ROI See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
4	Deploy 10 Enterprise Architecture (EA) policies and standards on citizen-facing website; continuous deployment and maintenance of statewide policies and standards.	Yes or no and overall quality of resource	12/1/18	D	Currently, 6 policy/guidelines are posted See: http://ets.hawaii.gov/policies/
5	Establish web accessibility standard and launch statewide training resources	Yes or no	12/1/18	B	In FY19 Q1, ETS procured and deployed SiteImprove web accessibility checking, site optimization web software for use by all Executive Branch Departments, including providing overview/usage training sessions (in person and via web). Formulated draft updated web accessibility standards – internal ETS review complete. Next step to confer with DCAB.
	Average Grade			C	

IT WORKFORCE DEVELOPMENT

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
6	Minimize level of vacancies within ETS	Vacancies: less than 10 percent monthly average rate	12/1/18	A	7% vacancy rate; expected to decrease further by end of year – 3 individuals selected for hire.
	Facilitate programs designed to establish, expand and/or promote career path opportunities within the State for IT workers:				

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
7	Use of LinkedIn as a recruitment/ branding tool throughout all departments (not only for IT positions)	20% of departments use tool	12/1/18	D	Introduced LinkedIn to DCCA. DCCA in July was working on the order.
8	ETS Employee participation in the Civil Service IT Broadbanding Project	ETS employees participating in program: 10 percent of applicable civil service IT employees	12/1/18	D	7% of applicable civil services IT employees participated in the IT Broadband for 2018.
9	Continue and expand Hawaii Annual Code Challenge program	3rd event compared to previous; goal: greater than 250 participants	12/1/18	A	An estimated 200 participants due to room capacity.
10	*NEW* Technical training – Provide professional development and personal development to ETS based on needs assessment conducted	Suggested: Increase the number of staff taking training by 20% from the prior year. Or: Use all training budget for 2018.	12/1/18	B	The number of staff that took training is 18% compared to 2017 which was 31%. This only reflects reported training; may not reflect self-directed training.
	Average Grade			B	

CYBERSECURITY

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
11	Fill all available ETS cybersecurity positions	Yes or no and overall quality of resource	12/1/18	A	Filled vacant positions - OCT 2018
12	Implement cybersecurity response plan and identify and train key State personnel.	Yes or no	7/1/18	A	Implementation - Ongoing Tabletop Exercise - AUG 2018 - AUG 2018 Training - SEP 2018
13	Establish metrics for cybersecurity response and effectiveness	Yes or no and quality of metrics	7/1/18	A	Assessment: - SEP 2018
	Average Grade			A	

ENTERPRISE PROJECTS & PROGRAMS

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
14	Issue RFP for State Web Portal Program per Access Hawaii Committee standards	Yes or no	8/1/18	F	RFP not issued. During past year, procurement committee formed with State Procurement Office. However, more definition on business model, goals, and expectations are needed to ensure needs are being addressed in the new procurement.

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
	Demonstrate successful implementation of the following enterprise initiatives:				
15	*NEW* All enterprise projects receive an IV&V including plans to address any major findings	Yes or no	12/1/18	A	Per HRS 27-43.6, CIO has required IV&V assessments on enterprise projects, like DOT-Highways financial management system upgrade, DLIR's DCD modernization, EUTF benefits system upgrade, and ERS retirement system upgrade See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
16	Completion of Tax System Modernization Project, Phases 2 & 3	Review, assess and develop plan to address any major IV&V findings as of date	12/1/18	A	Phases 2 & 3 completed. Phase 4 is now live. IV&V activities in-flight now, no major findings to-date. See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
17	Completion of Enterprise Payroll and Time & Attendance Modernization, Payroll Phase	On track, on budget	12/1/18	B	Remaining organizations to go-live: UH and DOE (December/January timeframe) See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
18	Implement Kauhale On-Line Eligibility Assistance (KOLEA), Phases 1 & 2	On track, on budget	12/1/18	I	Benefits Eligibility Solution (BES) project underway.

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
					See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
19	*NEW* Report on upcoming enterprise projects, e.g., summary of project phase activities, by phase (planning, budgeting, procurement, or implementation), within upcoming 6-12 months.	On track, on budget	12/1/18	C	In Department IT Roadmap Dashboard, enterprise projects are now tagged – next step is to provide various views for easier navigation. See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
20	*NEW* Report on actionable IV&V findings	Yes or no	12/1/18	A	Currently, the ETS website tracks four projects with IV&V activities: DoTAX Tax System Modernization, DOH BHA Integrated Case Management, DAGS HawaiiPay, and DHS Systems Modernization; next steps are to create a dashboard view(s) for the projects. See: http://ets.hawaii.gov/report/independent-verification-and-validation-reports/
21	*NEW* Departments with Enterprise Projects reports to ITSC semi-annually on status	Yes or no	7/1/18 12/1/18	D	August meetings were cancelled. Initial reports were on 10/3/18.
	Average Grade			C	

SERVICES-ORIENTED INFRASTRUCTURE

No.	**2018** Metric Description	Measurement	Deadline	**Grade**	**Comments**
22	Define level of support and further increase capability to provide tech support to departments as enterprise service	>95% Job tickets received and closed	12/1/18	A	3751 total tickets 3711 tickets closed (99%) 40 tickets open (1%)
	Demonstrate progress and success of:				
23	1) Provide Enterprise-wide Office 365 Project Support	Quality of departmental participation and sustainability based on survey results for O365	07/1/18	I	No survey done
24	2) Provide Enterprise-wide eSign Service Support	Number of transactions and quality of departmental participation; 200,000 transactions in calendar year 2018	12/1/18	B	Completed: 184115 (main tenant) + 14324 (secondary tenant) = Total 198439 Unique Senders: 4793 (main tenant) + 352 (secondary tenant) = Total 5145
25	3) Implement Government Private Cloud / Cloud Services	Migration completed (yes or no)	12/1/18	A	Completed

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
26	4) Continue Network Operations & Maintenance	Reliability and sustainability; goal for core Next Generation Network: 99.99% availability, excluding planned maintenance	12/1/18	A	99.997%
27	5) Maintenance and Operations of Telecommunications Services	Successful 99.99% availability, excluding planned maintenance	12/1/18	A	100%
	Average Grade			A	

OPEN DATA

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
28	Identify and Establish appropriate governance policies for open data	Yes or no	12/1/18	F	Draft open data guidelines circulated to Office of Information Practices and selected external organizations – will also align with upcoming Statewide IT Strategic Plan goals and objectives.
29	Support Utilization of ETS Strategic Roadmap Dashboard	Compare roadmap data (planned spends) to actual spend requests	12/1/18	B	Currently developing integration with internal Sharepoint IT Spend Request site and public Sharpcloud IT Roadmap site.

| No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
30	Evaluated effectiveness of State Web Portal program and model.	Survey of constituents	12/1/18	I	No survey done.
	Average Grade			D	

COST TRANSPARENCY

No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
31	Collect departmental IT roadmaps, under new authority provided under HRS 27-43	Quality of departmental participation	7/1/18	B	16 out of 17 Departments actively participating. Currently looking at ways to measure level of participation. See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
32	Standardize and publish finance data in ETS IT strategic roadmap, incorporating and aligning information from departmental IT roadmaps	Yes or no	12/1/18	A	Fields added to IT roadmap template for Departmental use. See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
33	Define and publish financial piece of ETS IT strategic roadmap setting clear goals and benchmarks for the CIO's priority areas and priority projects/programs by the deadline to submit Executive Budget Request to the Legislature	Yes or no	12/1/18	I	Fields added to IT roadmap template, and Financial view added to Department Dashboard. However, financial goals and benchmarks not defined/published. Currently aligning with priority areas and programs.

| No.	2018 Metric Description	Measurement	Deadline	Grade	Comments
					See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
34	Track cost savings by comparing planned budget to actual spending via the publicly accessible online dashboard.	Yes or no	7/1/18	I	Financial view comparing planned vs. actual spending added to Department Dashboard. See: https://my.sharpcloud.com/html/#/story/b04657dc-0318-4db8-a58f-b4ebd9e24dde/view/5bcb4b33-a824-43cb-9e06-8733e28296bd
				I	

Notes: *The CIO wanted to note that the ITSC graded items no. 1 and 2 under the IT Governance metric an " F" due to the lack of participation from DOE, although exceptional outreach and efforts were made to communicate with the department to comply with Administrative Directive No. 15-02 and HRS section 27-432(a).*

SUMMARY AGS 130
ENTERPRISE TECHNOLOGY SERVICES
GOVERNANCE AND INNOVATION
EXPENDITURES, ALL MEANS OF FINANCING (FY18)
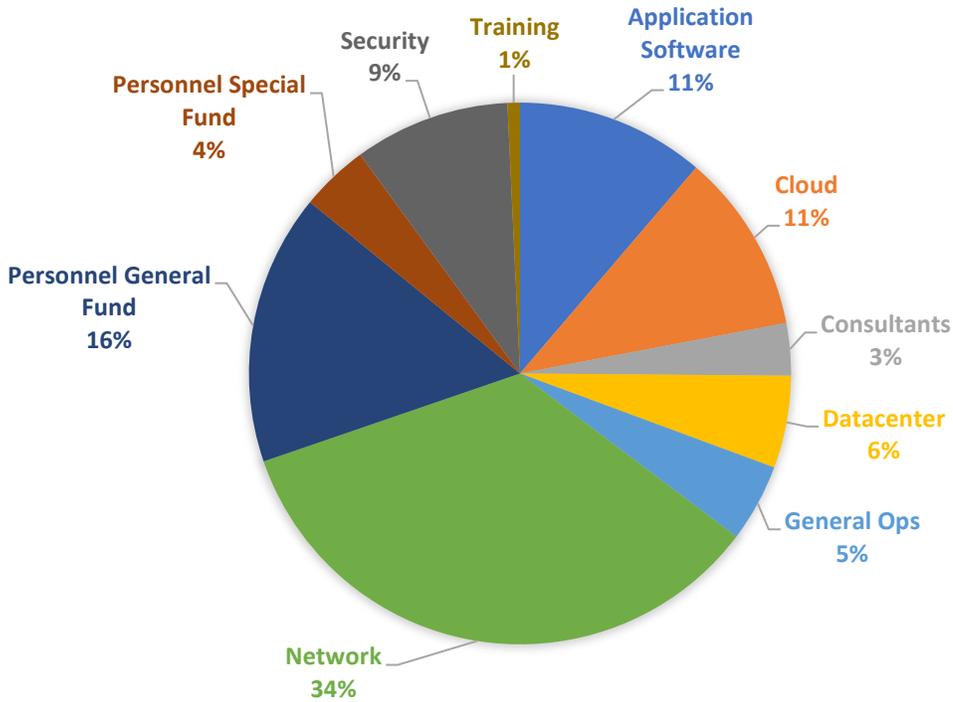
Category	Amount	Percentage
Application Software	2,224,798.00	11%
Cloud	2,125,491.72	11%
Consultants	616,505.77	3%
Datacenter	1,089,386.52	6%
General Ops	918,595.16	5%
Network	6,807,247.00	34%
Personnel General Fund	3,194,189.24	16%
Personnel Special Fund	803,962.08	4%
Security	1,835,854.93	9%
Training	146,961.78	1%
Grand Total	19,762,992.20	100%

SUMMARY AGS 131
ENTERPRISE TECHNOLOGY SERVICES
OPERATIONS AND INFRASTRUCTURE MAINTENANCE
EXPENDITURES, ALL MEANS OF FINANCING (FY18)
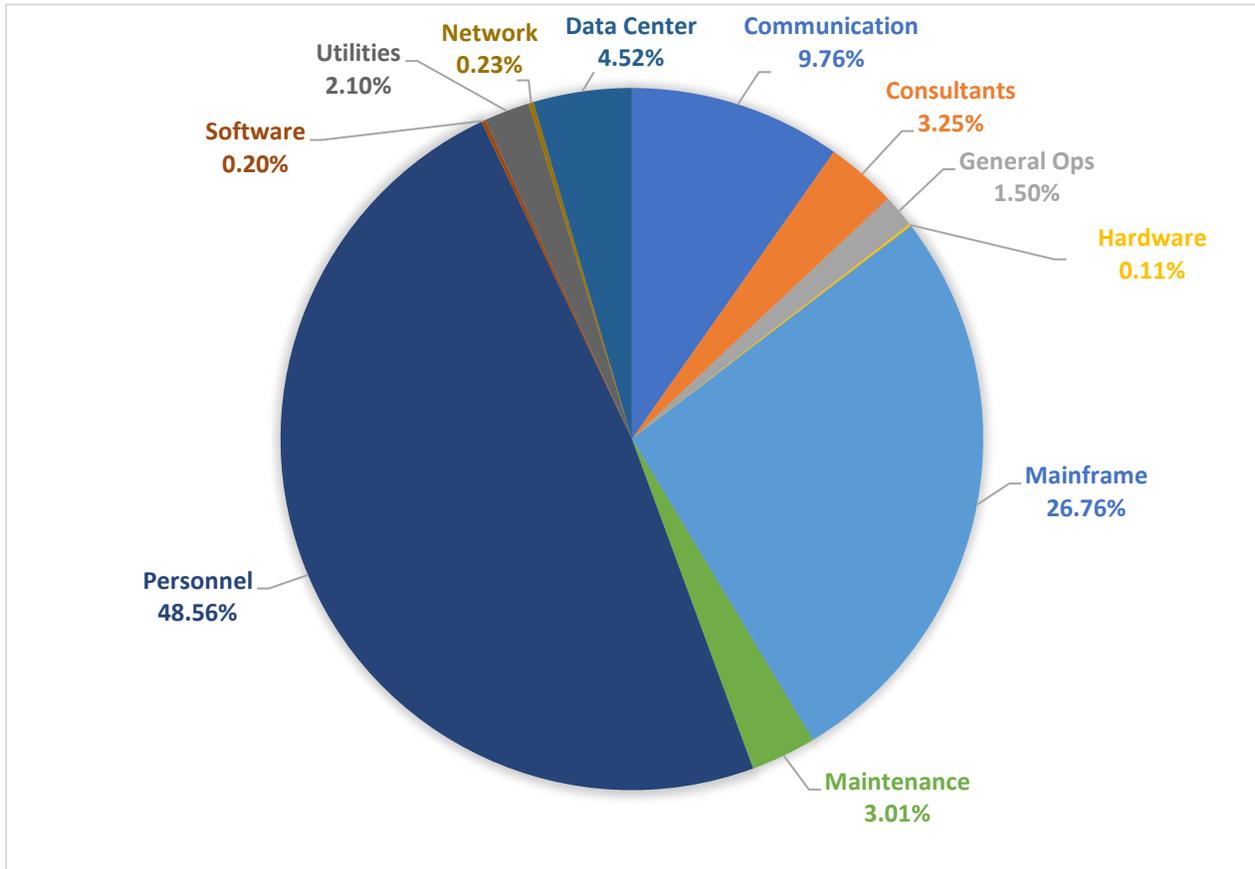
Category	Amount	Percentage
Communication	1,652,579	9.76%
Consultants	550,451	3.25%
General Ops	254,159	1.50%
Hardware	18,484	0.11%
Mainframe	4,534,630	26.76%
Maintenance	509,641	3.01%
Personnel	8,226,832	48.56%
Software	34,027	0.20%
Utilities	355,249	2.10%
Network	38,222	0.23%
Data Center	765,704	4.52%
Grand Total	16,939,979.40	100%