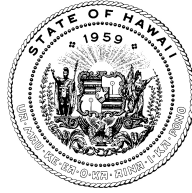**DAVID Y. IGE**
GOVERNOR

**TODD NACAPUY**
CHIEF INFORMATION
OFFICER

# OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

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INFORMATION AND COMMUNICATION
SERVICES DIVISION

OFFICE OF INFORMATION MANAGEMENT
AND TECHNOLOGY

December 31, 2015

The Honorable Ronald D. Kouchi,
President, and
Members of the Senate
Twenty-Eighth State Legislature
State Capitol, Room 409
Honolulu, Hawai'i 96813

The Honorable Joseph M. Souki,
Speaker, and Members of the House of
Representatives
Twenty-Eighth State Legislature
State Capitol, Room 431
Honolulu, Hawai'i 96813

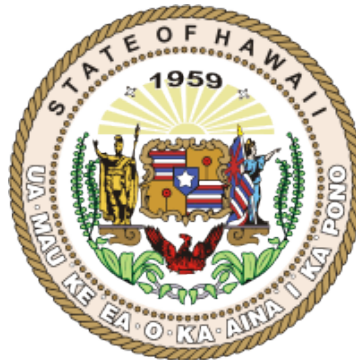Dear President Kouchi, Speaker Souki, and Members of the Legislature:

For your review and consideration, I respectfully submit the attached report on the status and implementation of the State information technology strategic plan, pursuant to Act 84, SLH 2011.

In accordance with HRS §93-16, this report may be viewed electronically at http://ets.hawaii.gov.

Sincerely,

*Todd Nacapuy*

TODD NACAPUY
Chief Information Officer
State of Hawai'i

(1) Attachment

STATE OF HAWAI'I
CHIEF INFORMATION OFFICER

REPORT ON THE

STATUS AND IMPLEMENTATION OF THE
STATE INFORMATION TECHNOLOGY STRATEGIC PLAN

DECEMBER 2015

SUBMITTED TO

THE TWENTY-EIGHTH STATE LEGISLATURE

# CHIEF INFORMATION OFFICER REPORT ON THE STATUS AND IMPLEMENTATION OF THE STATE INFORMATION TECHNOLOGY STRATEGIC PLAN

## BACKGROUND

Pursuant to Act 84, Session Laws of Hawaiʻi (SLH) 2011, the State of Hawaiʻi Chief Information Officer (CIO) is required to submit a report on the status and implementation of the State information technology (IT) strategic plan, annually to the Hawaiʻi Legislature twenty days prior to the convening of the regular session.

On April 8, 2015, Gov. David Ige named Todd Nacapuy as the State's CIO, the third State CIO in four years. Confirmed by the State Senate on April 22, 2015, Mr. Nacapuy formally assumed the CIO role on May 4, 2015. As defined by statute, the CIO reports to the Governor and leads the Office of Information Management and Technology (OIMT), which is part of the Department of Accounting and General Services (DAGS), and oversees DAGS' Information and Communication Services Division (ICSD).

Given today's institutional and budgetary limitations, the new CIO and his new executive team, with input from other departments and agencies, reassessed existing State IT plans and developed the new IT directions and programs that are 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.

## CIO PRIORITIES

CIO Nacapuy has identified six priority areas to continue progress achieved thus far and further identify, prioritize and advance programs and projects that, by leveraging technology, have the greatest potential to increase effectiveness and efficiency, reduce waste, and improve transparency and accountability in State government. This strategy aligns with the Administration's priority goal to ensure an effective, efficient and open government, and supports the legislative intent in cited statutes.

    i.   IT Workforce Development
   ii.   IT Governance
  iii.   Enterprise Shared Services (Service-Oriented Infrastructure)
  iv.   Enterprise Programs and Projects
   v.   Open Government
  vi.   Cyber Security

### IT Workforce Development
A new priority identified by the CIO, IT workforce development consists of the implementation of programs, strategies and reforms to develop and empower the State's IT workforce to increase our ability to modernize government processes, systems, solutions and services while reducing overreliance on third-party consultants.

In assessing our current workforce and capacity, it is important to note that Reductions in Force (RIF) of the 1990s and 2000s, however necessitated by economic forces, caused ICSD staff levels to plummet from more than 300 to less than 150. In addition, the division's funding has historically remained static or has been cut over the same time period. These factors have resulted in decentralization of procurement, diminished governance, and overreliance on consultants.

IT workforce development efforts will involve the establishment of flexible programs to attract and retain individuals possessing modern IT disciplines to fill service and skill gaps within the State's IT operations, building outreach campaigns to recruit candidates from non-traditional sectors, and continuing to develop internship and apprenticeship programs to expose government opportunities to high school graduates as well as two-year and four-year degree program participants.

### *FY 2015 Accomplishments*

- As this is a new CIO priority, the status of efforts since May 2015 are noted below along with FY 2016 objectives.

### *FY 2016 Objectives*

- Expedite the Filling of Vacancies — Prioritize the filling of current vacancies to mitigate unnecessary reliance on third parties and further ongoing efforts to expand career path opportunities and retain public sector workers. *(Since the start of FY 2016, OIMT has successfully filled 18 vacancies in OIMT and ICSD. ETS has also launched and maintains a webpage promoting current IT positions in recruitment by OIMT and ICSD, to further facilitate the filling of vacancies.)*

- Initiate Consolidation of OIMT and ICSD — Initiate the consolidation of authority, operations and resources of OIMT and ICSD, including moving signatory authority from the acting ICSD Administrator to the CIO, and the preliminary adoption of the use of "Office of Enterprise Technology Services" (ETS) for the unified OIMT/ICSD team. The reorganization is intended to create greater efficiency in state government and clarify roles and responsibilities in the new governance process. *(Pending completion of discussions and the formal reorganization, the two agencies have already begun working as one team under ETS. As such, correspondence, websites and social media accounts now reflect the new office name. All other operational documents will remain unchanged until the proposed formal reorganization is implemented.)*

- Expand Governance and Technical Capacity — Identify additional positions necessary to meet governance and technical needs. For example:

  a. OIMT and ICSD only have five full-time equivalent positions that are dedicated to the maintenance, installation, and future planning for the Server and Operating System platforms that run the new applications. The majority of the existing staff

is new to the technology. As a result, the organization relies too heavily on consultants for the mid- to high-end technical issues and processes. This costs well over two million dollars a year for these consultants. By requesting positions for system engineers, OIMT/ICSD will be able to eliminate much of these consulting charges when it brings these duties in house. This will also future proof the organization as it continues to transform State processes.

b. Positions are needed to not only migrate legacy applications which exist on antiquated technologies, but also to create new applications for new business processes. OIMT/ICSD only has three people who can work on these new applications, and the majority of the application developers are Mainframe-based. The current Mainframe developers' workload supporting the existing applications prevents them from being retrained to the new application languages, and platforms, in a timely manner. The creation of web supervisor and developer positions is key to the goal of taking the State paperless. A primary responsibility of these developers will be to build the applications that will process, and store, all of these digital documents. They will also be used to build the digital workflows that will replace and/or mirror the human processes. Another important piece of their workload will be to develop the applications that will allow the State to interact better with its citizens.

c. State data is transported on the State Network. As more business processes become digital the network infrastructure becomes extremely critical. The State currently relies heavily on consultants for the higher end engineering at over a million dollars a year. The purpose of creating network and voice supervisor and technicians is to transition from consultants to employees. As more State agencies require more computing services, the demand for network services also increases. The current staff level cannot support the demand. The creation of these positions will enable the network team to not only meet the demand, but also to support the infrastructure.

d. Security is a high priority in the Internet age, as the threat has expanded from the lone hacker in a high school classroom, to state/nation sponsored cyber terrorism. Government agencies are a primary target for the cyber terrorist, whose attacks are becoming more and more sophisticated. The State, previously relied heavily on consultants at significant cost. Additional security engineers, as well as a chief information security officer, will be needed to transition these efforts in-house.

*(The above positions are included in the Administration's supplemental budget request submitted to the 2016 legislative session.)*

- IT Broadbanding Pilot Project — Launch the IT Broadbanding Pilot Project in partnership with DHRD to update the current position classification system that is more than 40 years old, inflexible, complex, labor intensive, and unresponsive to changing needs, particularly as it relates to IT positions. Re-describing State IT positions to more appropriately match modern technologies and processes will further ongoing efforts to

hire and retain IT personnel and expand career path opportunities for public sector workers. Broadbanding will also enable ETS to be more competitive with the commercial world in the recruitment of IT workers and allow for current IT workers to choose a technical career, which may not require managing individuals. *(In September 2015, DHRD James Nishimoto joined CIO Nacapuy in presenting information about the IT Broadbanding Pilot Project to ETS personnel.)*

- IT Workforce Development Strategy — Formalize long-term strategic plan for IT workforce development. Development of the State's IT workforce will be central to building and sustaining a modern, efficient and effective state government to address the current state of IT in Hawai'i.

- Transformation Internship Program (TIP) — Repurpose award-winning State program to support IT workforce development efforts, potentially entering into partnerships (e.g., with the University of Hawai'i and organizations such as DevLeague) to create on-the-job-training opportunities. TIP was originally launched in 2013 in partnership with DHRD to provide Hawai'i undergraduate and graduate students the opportunity to work alongside innovators within State government and gain hands-on experience in a wide range of areas.

- American Apprenticeship Incentive Grant — Work with other large employers in the State to develop an apprenticeship program that will target IT specialty and skills, while conducting outreach to underserved communities and individuals. Implement initial outreach and recruitment activities for apprenticeship work in the designated fields outlined in the grant. The American Apprenticeship Incentive Grant is a federally funded program that is administered by the Department of Labor and Industrial Relations (DLIR) in which employers within the State receive nearly $3 million to establish apprenticeship programs and opportunities.

### Two-Year Objectives

- Continue the filling of vacant positions, focusing on the reduction of single points of failure while expanding capacity to support priority initiatives and service-oriented infrastructure.

- Implement the formal consolidation and reorganization of OIMT and ICSD.

- Continue implementation of the IT Broadbanding Pilot Project and conduct ongoing assessment of effectiveness.

### Five-Year Objectives

- Effectively address all vacancies and maintain workforce sustainability, eliminating single points of failure and measurably expanding capacity to support priority initiatives and service-oriented infrastructure.

- Complete the formal consolidation and reorganization of OIMT and ICSD, including any statutory amendments necessary for operations including but not limited to budgetary requirements and boards and commissions de facto membership.

- Build upon the foundation of the IT Broadbanding Pilot Project to provide more career growth path options for State employees in additional bargaining unit positions that are IT related.

## IT Governance

IT governance involves the establishment of processes and standards that guide the management and oversight of the state's IT and information resource investments, acquisitions and projects, as outlined in statute (HRS Section 27-43), to seek efficiencies and cost-savings through economies of scale, leveraging of shared assets, reduction of waste, and alignment with statewide IT strategies and industry best practices. This will involve the implementation of governance procedures across enterprise programs and projects to ensure successful outcomes and positive return on investment (ROI) to the extent possible, and efficiently managing the statewide portfolio to ensure projects are prioritized appropriately and resources are sufficiently managed.

### FY 2015 Accomplishments

- Enterprise Architecture Portfolio Project, Phase 1 — Closed phase one of the Enterprise Architecture Portfolio Project, transitioning the project from vendor to state personnel.

- Update of IT Policies — Drafted 82 statewide IT policies, which are now pending operationalization.

- Program Management Center of Excellence (PMCE) — Established the PMCE to assist with portfolio management of modernization projects and the development of a State project management framework and methodology to ensure projects adhere to a process that governs the efficient use of State resources and funding.

### FY 2016 Objectives

- IT Governance Process — Develop and launch a governance process for IT projects identified in Act 119, SLH 2015, as well as "enterprise" and/or priority projects. This process will be designed to identify and maximize opportunities for efficiencies and cost-savings, reduction of waste, positive ROI, and overall success. The process will require that enterprise and/or priority projects adhere to a review gate process specific to the prescribed project lifecycle: pre-initiating (concept), initiation, planning and execution. *(On December 10, 2015, Governor David Ige and CIO Nacapuy announced this new, mandatory governance process, overseen by newly hired IT Governance Officer Todd Omura. As referenced in ETS' separate report to the Legislature required under Section 41 of Act 119, SLH 2015, projects subject to the new governance requirements will include: IT development and modernization projects identified under Section 41, or any future related legislation or budget bills; IT projects that require technology resources*

*estimated at $1 million or greater; and enterprise modernization projects identified by
the CIO, typically those that will leverage business and operational efficiencies and
benefits for multiple departments or agencies.)*

- Contract Management Center of Excellence (CMCE) — Launch CMCE as part of IT
governance capability and services.

- Enterprise Architecture Portfolio Project, Phase 2 — Initiate phase two of the project to
facilitate collaboration with the State Auditor's office in support of a parallel effort to
collect data on IT expenditures across the Executive Branch (SCR162 2015).

- Update of IT Policies — Operationalize statewide IT policies, standards and procedures
in the priority categories.

### *Two-Year Objectives*

- Continue to refine IT governance process to maximize success. Successfully utilize the
statewide portfolio of projects to prioritize initiatives and ensure resources are efficiently
deployed. Consider reinforcing IT governance process statutorily or in budgetary
process.

- Complete and evaluate phase two of the Enterprise Architecture Portfolio Project,
utilizing data to identify opportunities for economies of scale, leveraging of shared assets,
and reduction of waste — potentially administered via amendments to the
aforementioned IT governance process and/or new statewide IT policies. A goal is to
launch Enterprise Agreements to reduce overall IT spend with strategic partners, having
price lists for both software and IT services via value-added vendors.

- Operationalize remaining statewide IT policies, standards and procedures. Also establish
central site for electronic posting and tracking statewide IT policies.

### *Five-Year Objectives*

- Demonstrate value of IT governance process over time and ability to qualitatively and
quantitatively measure success criteria and outcomes.

- Continue to refine, mature and evolve the above-mentioned statewide policies,
procedures and standards. Ensure sustained maintenance of site for posting and tracking
statewide IT policies.

## Enterprise Shared Services

Enterprise shared services provide centrally managed "Service-Oriented Infrastructure" (SOI)
that leverages the State's enterprise status and related economies of scale (e.g., Network,
Security, Data Management, Unified Communications, Data Center, and various Cloud
Services).

*FY 2015 Accomplishments*

This is a new priority initiative established by the newly appointed CIO. SOI will leverage progress achieved over the past year in securing, stabilizing and modernizing the State's IT infrastructure, including but not limited to the following:

- State Network Stabilization and Redundancy — Oversaw and collaborated with ICSD on the establishment of, for the first time, a stable, redundant State network between Oʻahu, Maui and the Big Island – with a connection to Kauaʻi expected by FY2017. The State Network, aka New Generation Network or NGN, represents the State's backbone internet network. Upgrades have increased network "uptime" to 99.9 percent, and capacity has increased from 100Mbps to 10Gbps (an increase of 1,000 percent). The NGN has been built out to ensure a diversity of paths and routes to achieve this significantly improved availability while mitigating single points of failure. The islands are connected at multiple points via diverse 10 Gig rings resulting in a highly resilient and available infrastructure.

- Anuenue Interisland Digital Microwave Network — Oversaw ICSD's successful achievement of "full operating capability" of the Anuenue Interisland Digital Microwave Network, on shared infrastructure designed by State of Hawaiʻi and U.S. Coast Guard (USCG) engineering professionals to provide robust and survivable communication links and facilities throughout Hawaiʻi. The Anuenue network is jointly managed by ICSD, as overseen by the CIO, and the USCG Base Honolulu C4IT Division. State users of this backbone communications network include the Statewide Shared Blended land mobile radio system; Maritime Wireless Network System; Hawaiʻi Emergency Management Agency; and the Departments of Public Safety, Transportation, Health, and Land and Natural Resources. State-sponsored users include the County of Maui Police Department and other agencies of all counties.

- Office 365 Project — Oversaw and collaborated with ICSD personnel on the launch of the Office 365 Project to migrate Executive Branch personnel to the Office 365 platform. The scope includes the majority of departments (excluding the Department of Education and University of Hawaiʻi), which are being upgraded in phases. Benefits will include fortified security, greater disaster recovery capability, expanded applications and services, added tools for collaboration, and long-term budget sustainability.

- Cloud-First Preference — Set a clear preference for departments' use of cloud services over existing and often outdated legacy systems for which further investment of taxpayer dollars cannot be justified. In addition, having reached initial operating functionality, the Hawaiʻi Government Private Cloud offers infrastructure as a service to all state entities, including broad disaster recovery.

*FY 2016 Objectives*

- SOI Catalog and Capacity Building — Identify SOI under the preliminary categories of Network, Security, Governance, Data Management, Unified Communications, and

Shared Services.  Also build capacity to manage and sustain ETS-led operation and maintenance of the infrastructure.

- Electronic Signature Services — Oversee the launch of eSign Services as an SOI with the goal of eventually implementing an electronic signature process across all departments. *(Since the governor's office began using ETS' eSign Services solution on October 1, 2015, to process documents electronically, over 17 departments and agencies have implemented or are working toward implementing this more efficient, less paper-dependent way of doin*g *business.)*

- Office 365 Project — Complete Office 365 Project, recently accelerated under the Ige Administration and the new CIO.  *(Most of the remaining user licenses are on track for deployment by the end of calendar year 2015, including migration to an Enterprise Collaborative suite in six months.)*

- Cloud Services Upgrade — Upgrade Hawaiʻi Cloud services to implement independent server failover as part of SOI.  With the upcoming addition of independent failover capability as well as application high-availability with clustering, the focus shifts to business continuity, even in the face of unforeseen events.  Service-level agreements and cost options will be defined for State departments and agencies to make use of the enterprise asset.

- UH Data Center Partnership — Formalize memorandum of understanding with UH to migrate systems currently located in the Kalanimoku Building Data Center to the UH IT Center, to the extent possible, to address at-risk systems and realize cost-savings to the State.

*Two-Year Objectives*

- Build out ETS-led SOI and expand departmental costumer base while demonstrating return on investment and cost-avoidance achieved through economies of scale and efficiencies.

*Five-Year Objectives*

- Operate sustainable ETS-led SOI, including the maintenance of a sufficient workforce and funding resources, and continue to offer to stable department customer base, expanding where opportunities present themselves.

## Enterprise Programs and Projects

Enterprise Programs and Projects maximize positive return on investment by leveraging economies of scale and setting standard platforms for IT systems.  Under this priority area, ETS will facilitate the establishment and execution of programs and projects identified as priority and/or enterprise in scope (e.g., tax, asset management, budget, finance, grants, human resources, payroll, procurement, and time and attendance).

*FY 2015 Accomplishments*

- Human Resources Management System (HRMS) Upgrade Project — In partnership with DHRD, oversaw the completion of a major upgrade to the State's HRMS, which is used by more than 200 human resource professionals to support recruitment, management and retention of over 16,000 employees.  Officially completed as scheduled on January 20, 2015, the project resulted in a modernized system with the latest HRMS software, all deployed with vital backup and disaster recovery capability.  Together, the software update and equipment/systems modernization will drive down the state's operating costs while providing faster service to customers.

- State Building Asset Management System, Phase 1 — In partnership with DAGS, completed phase one of the State Building Asset Management system, consisting of the technical backend development of an integrated inventory management solution for state-owned or operated buildings, facilities and other similar structures.  In accordance with Act 110, SLH 2013, the objective of the project is to identify and implement a system that would provide control and accountability over capital assets while also providing capacity to build out additional capability for other kinds of assets and the work associated with them.

- Uniform Chart of Accounts — Completed a draft design of an updated uniform chart of accounts for the State, which included participation of advisement from all State departments and employer jurisdictions.

- Grants Management — Completed phase two of the interim grant management system to include electronic capture of all federal awards and grants and to automate the State's grant submission process.

- Enterprise Resource Planning (ERP) Targeted Strategy — Established targeted strategy for ERP initiative, which aims to modernize and integrate the management of important state government administrative functions, from asset management to time and attendance.  In March 2015, Gov. David Ige tasked the ERP Executive Steering Committee to identify targeted projects to be undertaken using available ERP funding and potentially leveraging existing systems, including underlying infrastructure required to support key applications.

- ERP Targeted Projects — Facilitated ERP Steering Committee meetings to work toward identification of targeted projects to be implemented in the short-term within available funding.

- Verification and Validation Function — Established verification and validation role for ETS in program management of Ige Administration priority projects as well as ERP targeted projects.

*FY 2016 Objectives*

- Enterprise/Targeted Project Identification — Work with the Governor's Office and ERP Executive Steering Committee to identify Ige Administration priority projects as well as ERP targeted projects, respectively.  Projects may include but not be limited to:

    a. Tax System Modernization;
    b. KOLEA and related health IT initiatives;
    c. Payroll Modernization and Automation; and
    d. Any additional ERP targeted projects identified by the ERP Executive Steering Committee.

- Enterprise/Targeted Project Program Management Capacity — Develop and assign ETS resources to provide sufficient oversight, support, and verification and validation to the aforementioned priority/targeted initiatives, as necessary.

- Project Center Capability — Initiate internal status reporting capability for all of the aforementioned targeted/priority initiatives for effective governance and program management.

- State Building Asset Management System, Phase 2 — Launch phase two of the State Building Asset Management system for more than 6,000 state-owned or operated buildings, facilities and other similar structures.  *(Live since September 2015, SBAM now provides a centralized, "big picture" dashboard view for officials to use to make informed asset management decisions.  In addition to building asset categories, SBAM maintains information that includes initial service date, building aliases, land parcel data, and square footage.  The program also uses data from the state Office of Planning's Geographic Information System, and plans are underway to add legislative district and ceded land data.)*

*Two-Year Objectives*

- Provide effective ongoing oversight, support, and verification and validation to the aforementioned priority/targeted projects, refining processes as necessary.

- Provide internal status reporting on all priority/targeted projects to facilitate responses to address project success needs.

*Five-Year Objectives*

- Ensure sustainability of the above oversight functions and demonstrate effectiveness.

## Open Government

Under the priority area of open government, ETS will build on established open data and transparency platforms to facilitate open government mandates outlined in statute (HRS Section 27-44).

### *FY 2015 Accomplishments*

- Open Data Portal — Pursuant to HRS Section 27-44, facilitated Executive Branch departments' 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 (data.hawaii.gov), which now offers charting libraries and mapping tools for the creation of dynamic visualizations.  Today, 639 data sets are publicly available through the portal – double what was available just a couple years ago – providing residents, analysts, and civic developers with unprecedented access to state data.

- Open Performance Dashboard — Launched the Open Performance Dashboard (dashboard.hawaii.gov), a highly visual representation of department-maintained data that is intended to report progress on key initiatives and provide for transparency for constituents.  Reliant on the regular maintenance of data by various the departments/agencies, it is another resource created to further transparency and accountability through governance.

- Office of Hawaiian Affairs (OHA) Dashboard — Launched the OHA Dashboard (dashboard.hawaii.gov/oha), developed and maintained in partnership with OHA to track goals outlined in its strategic plan.

- Aloha+ Challenge Dashboard — Launched the Aloha+ Challenge Dashboard (dashboard.hawaii.gov/aloha-challenge), outlining sustainability goals for the state and across all four counties.  On April 1, Governor Ige joined the four county mayors, OHA, the University of Hawai'i and Hawai'i Green Growth to launch this ETS-developed and hosted dashboard, which features indicators for two of the six targets established under the program last year:  clean energy and solid waste reduction.  With data maintenance led by Hawai'i Green Growth, the dashboard makes it possible for officials and members of the public alike to track the progress of sustainability goals statewide.

- Best of the Web State Portal — The collaborative efforts of ETS and the State web portal program vendor earned "Best of the Web" state portal by the Center for Digital Government 2014 Best of the Web and Digital Government Achievement Awards, which recognize the best of all government websites across the country.  The awards program is the original and most respected state and local government website competition in the United States, honoring outstanding government portals and websites based on their innovations, functionality and efficiencies.

- Interactive Media Awards Best of Class Award — The collaborative efforts of ETS and the State web portal program vendor earned additional recognition for Hawai'i's web portal from the Interactive Media Awards as the best website of its kind with a Best of Class award for the second year running, highlighting how the State and its partners are applying technology effectively to improve public access to government data and services.

*Note: Items above relating to the State web portal build on previous years' accomplishments, including the upgrading of all 18 department websites, recognition such as the 2014 Best Government Website from the Web Marketing Association and 2014 Government Innovator of the Year Award from the Government Technology Research Alliance, and a "Perfect Score" in the 2014 State Open Data Policies and Portals Report by the Center for Data Innovation (Hawai'i was one of only six states to receive a perfect score).*

### FY 2016 Objectives

- Open Data Portal and Open Performance Dashboard — Sustain the Open Data Portal as well as Open Performance Dashboard while continuing to work with departments and agencies to expand and refine available data with regularly updated information.
- Ige Administration Dashboard — Launch online dashboard focusing on Administration priorities in partnership with the Governor's Office.
- State Portal Manager — Fill portal manager position vacancy to facilitate the CIO-chaired Access Hawai'i Committee's legislatively mandated duty to oversee the State portal program. The portal manager will function as the vendor relationship manager and evaluate the portal contractor's activities and financial reports. *(State CIO Todd Nacapuy expedited the filling of the vacant position after attending his first Access Hawai'i Committee meeting in June 2015.)*
- Web Accessibility Initiative — Complete Web Accessibility Initiative to update information and training to State departments and agencies to help ensure that their respective websites meet federal accessibility guidelines. Accessibility of official State of Hawai'i websites is of paramount importance to serving all citizens. The project coincides with rulemaking being conducted by the U.S. Access Board is expected to result in modifications to relevant national standards, including the Website Content Accessibility Guidelines (WCAG). Currently, eHawaii.gov web managers strive to meet WCAG 2.0 AA level standards for website accessibility. ETS will coordinate with the state Disability and Communication Access Board to ensure maximum administrative compliance.

### Two-Year Objectives

- Review and publish all policies, procedures and standards related to the open data. State policy on open data will ensure that the Federal Directive on Government Transparency is properly followed via practices and procedures of reporting and archiving data. ETS will coordinate with the Office of Information Practices to ensure maximum administrative compliance.

*Five-Year Objectives*

> Ensure appropriate resources and mandates are in place for regularly maintained and accessible public-facing open data assets in accordance with the aforementioned policies, procedures and standards.

## Cyber Security

Ensuring a sound cyber security posture for the State will involve the establishment of statewide policies and standards, maintain the security posture of the State Network, and direct departmental remedial actions, if necessary, to protect government information or data communication infrastructure, in accordance with statute (HRS Section 27-43.5).

*FY 2015 Accomplishments*

- Security Operations Center (SOC) — Expanded capacity of the State SOC, which conducts continuous monitoring and response to cyber threats to departments and agencies.

- Network Visibility — Increased the SOC's visibility into department networks.

- Implemented an enterprise-wide Incident Response (IR) program with numerous critical components necessary to properly respond to all natural hazard and cyber threats. This initiative has placed processes, procedures, reporting, and a highly structured workflow around this essential function. As IR is the first line of response to a cyber threat, adopting a proven and organized approach is critical.

- Formed a partnership with the U.S. Department of Homeland Security's Cyber Hygiene program, which provides network vulnerability scanning of external-facing public IP addresses to help the state understand how it appears to attackers on the Internet.

*FY 2016 Objectives*

- Update of IT Policies — Initiate operationalization of statewide IT policies, standards and procedures in the priority category of cyber security.

- Security Operations Center (SOC) — Transition SOC from a vendor-led operation to a more sustainable State personnel-led team. As mentioned above as part of IT workforce development, the State previously relied heavily on consultants. The focus of the existing staff now is to focus on perimeter security and the next phase to build the end point (desktop) security platforms. Additional staff positions are being requested for FY 2017 to support this initiative. The creation of security engineers, as well as a chief information security officer, is key to the goals of modernizing and integrating the State processes.

- Security Audits — Initiate security audits of Executive Branch departments and agencies regarding the protection of government information and data communication infrastructure, and direct specific remedial actions to mitigate findings of insufficient administrative, technical, and physical controls.

- Network Visibility — Continue to increase the SOC's visibility into department networks in conjunction with the deployment of industry-standard security tools.

*Two-Year Objectives*

- Complete operationalization of statewide IT policies, standards and procedures in the security category.
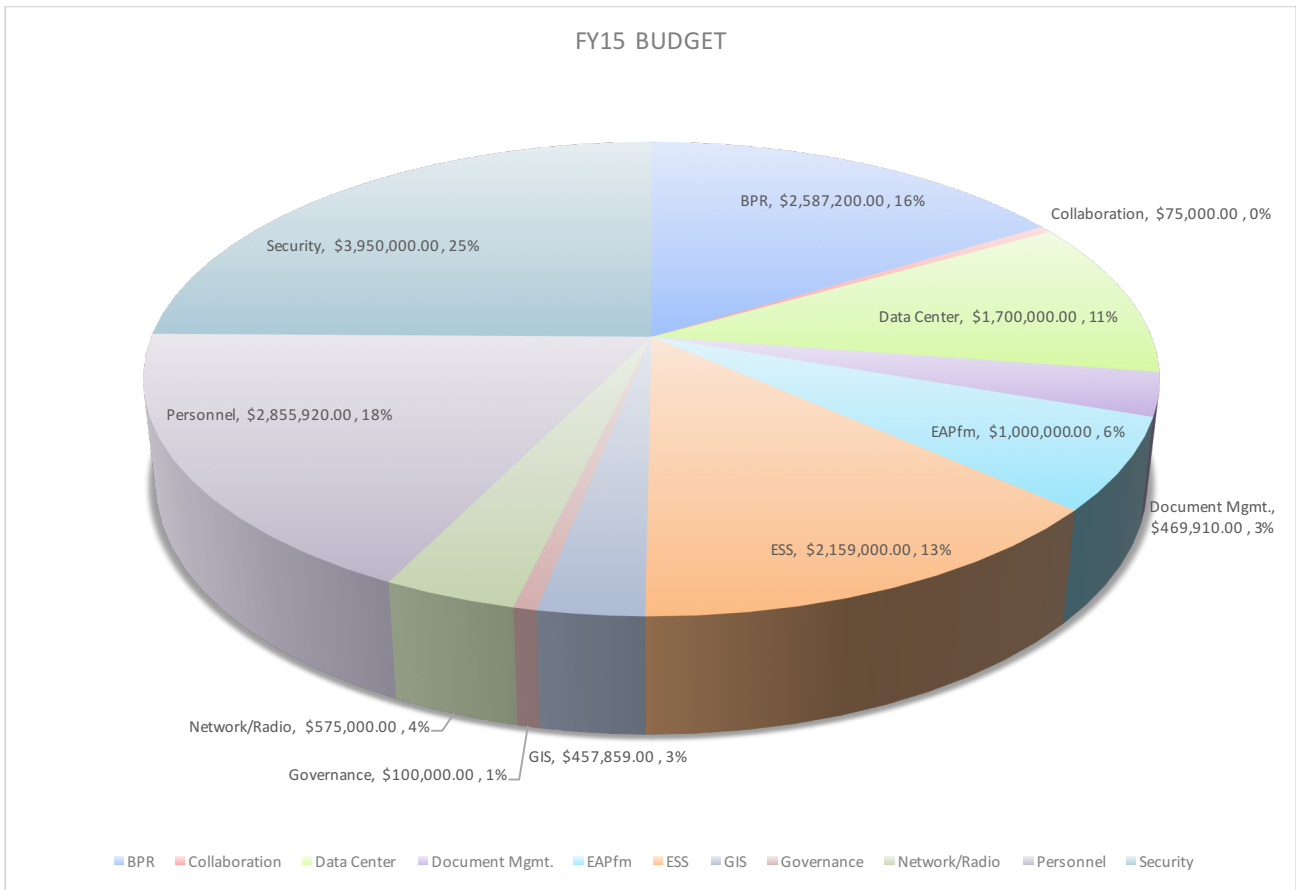
*Five-Year Objectives*

- Continue to maintain and deploy industry-standard security tools and practices to increase protection against network-based threats.

# FY 2015 BUDGET AND EXPENDITURES

Below is a breakdown of the OIMT budget (AGS-130) for FY 2015 compared to a breakdown on the next page of OIMT actual expenditures for FY 2015, organized under the following categories:

- Business Process Reengineering (BPR)
- Collaboration
- Data Center
- Document Management
- Enterprise Architecture / Enterprise Portfolio Management (EAPfm)
- Enterprise Shared Services (ESS)
- Geographic Information System (GIS)
- Governance
- Network/Radio
- Personnel
- Security



FY15 BUDGET

BPR, $2,587,200.00 , 16%
Collaboration, $75,000.00 , 0%
Data Center, $1,700,000.00 , 11%
EAPfm, $1,000,000.00 , 6%
Document Mgmt., $469,910.00 , 3%
ESS, $2,159,000.00 , 13%
GIS, $457,859.00 , 3%
Governance, $100,000.00 , 1%
Network/Radio, $575,000.00 , 4%
Personnel, $2,855,920.00 , 18%
Security, $3,950,000.00 , 25%

Legend: BPR  Collaboration  Data Center  Document Mgmt.  EAPfm  ESS  GIS  Governance  Network/Radio  Personnel  Security

## FY15 EXPENDITURE



Security, $3,085,316.81 , 22%

BPR, $2,958,065.53 , 21%

Collaboration, $75,000.00 , 0%

Data Center, $1,755,966.14 , 12%

Document Mgmt., $303,062.96 , 2%

EAPfm, $1,025,598.88 , 7%

ESS, $2,139,318.77 , 15%

Personnel, $1,795,748.44 , 13%

Network/Radio, $565,205.03 , 4%

Governance, $100,000.00 , 1%

GIS, $450,000.00 , 3%

■BPR  ■Collaboration  ■Data Center  ■Document Mgmt.  ■EAPfm  ■ESS  ■GIS  ■Governance  ■Network/Radio  ■Personnel  ■Security