Information Technology Steering Committee

PERMITTED INTERACTION GROUP
Report and Recommendations
Submitted August 25, 2016

TO: Information Technology Steering Committee

FROM: Permitted Interaction Group

SUBJECT: Operationalizing Statutory Mandates, Public Outreach, and Accountability

This report conveys to the full Information Technology Steering Committee (ITSC) the recommendations of the Permitted Interaction Group (the Group) assigned to make recommendations on operationalizing statutory mandates, public outreach, and accountability.

INTRODUCTION:

In its quarterly meeting on February 25, 2016, the ITSC voted to form a Permitted Interaction Group to provide recommendations on:
- operationalizing ITSC mandates under Section 27-43, Hawai'i Revised Statutes (HRS);
- identifying how the ITSC can best reach out and gather input from the community; and
- establishing measurable objectives and an approach to hold itself accountable.

Members of the Group are:
- ITSC Members: Benjamin Ancheta, David Keane, Jared Kuroiwa, Liane Moriyama, Todd Nacapuy, Kelly Taguchi
- Members of the Public: Michael Fors
- Office of Enterprise Technology Services (ETS) Staff: Susan Bannister, Keith DeMello

Members of the Group met on three occasions:
- April 7, 2016
- May 20, 2016
- July 30, 2016

BACKGROUND:

Creation of the Chief Information Officer and ITSC
In recognition of the pivotal role that technology and innovation hold in Hawai'i's transformation, the full-time State Chief Information Officer (CIO) position was created pursuant to HRS §27-43, which also established the ITSC to assist the CIO in developing the State's standards and policies. The language with regard to the ITSC, as amended by Act 84 of 2011, reads as follows:

There is established an information technology steering committee to assist the chief information officer in developing the state's information technology standards and policies, including but not limited to:

1. *Assisting the chief information officer in developing and implementing the state information technology strategic plans;*
2. *Assessing executive branch departments' progress in meeting the objectives defined in the state information technology strategic plans and identifying best practices for shared or consolidated services;*
3. *Ensuring technology projects are selected based on their potential impact and risk to the state, as well as their strategic value;*
4. *Ensuring that executive branch departments maintain sufficient tools to assess the value and benefits of technology initiatives;*
5. *Assisting the chief information officer in developing state information technology standards and policies; and*
6. *Clarifying the roles, responsibilities, and authority of the information and communication services division, specifically as it relates to its statewide duties.*

CIO Priorities
Shortly after taking the technological helm for the State in May 2015, CIO Nacapuy announced the initiation of efforts to consolidate the Office of Information Management and Technology (OIMT) and the Information and Communication Services Division (ICSD) of the Department of Accounting and General Services, to form a unified and cohesive team under the ETS office. He also established six CIO priorities to ensure the right systems and processes are in place to facilitate an effective, efficient and open government:

- IT Workforce Development
- IT Governance
- Services-Oriented Infrastructure
- Enterprise Projects and Programs
- Open Government
- Cyber Security

Senate Bill 2807 SD2
With the passage of Senate Bill 2807 SD2, Relating to Enterprise Technology Services (now Act 58, Session Laws of Hawai'i 2016), ETS is formally established, effective July 2, 2016, and the information technology (IT) functions performed by the former OIMT and ICSD are consolidated within ETS, led by the CIO. In summary, SB2807 accomplishes the following:

- creates greater efficiency and effectiveness in State government by formally combining into one office the IT functions performed by the former OIMT and ICSD;
- formally establishes ETS to administer those functions; and
- strengthens comprehensive IT governance and cybersecurity governance by adding the following new language to HRS §27-43:

> *... (4) Work with each executive branch department and agency to develop and maintain its respective multi-year information technology strategic and tactical plans and roadmaps that are part of the state's overall information technology strategic plans, roadmaps, and directions;*

(5) Coordinate each executive branch department and agency's information technology budget request, forecast, and procurement purchase to ensure compliance with the department or agency's strategic plan and roadmap and with the office of enterprise technology services' information technology governance processes and enterprise architecture policies and standards, including policies and standards for systems, services, hardware, software, and security management ...

Cybersecurity

In submitting ETS' supplemental budget request for the 2016 legislative session, a high priority was placed on cybersecurity. The addition of skilled security specialists was identified as a pressing security need. The Legislature's approval of three new cybersecurity positions will significantly improve the effectiveness of the current efforts and in the building of the State's cyber security program, which protects all three branches of government that today share a common access point to the Internet where most cyber threats originate. These new positions will also allow ETS to pursue cost-effective solutions for Hawai'i's cybersecurity needs by providing additional training to State employees. Training employees enables the State to shift a majority of security work previously done by contractors to skilled State personnel.

As the new fiscal year begins, ETS has immediately begun recruitment for the following new cybersecurity positions approved during the 2016 session:

- **Chief Information Security Officer** (CISO) — to establish security standards and ensure that the State stays current with best practices in security.
- **Two cybersecurity support positions** — for operations (The focus of the existing staff is on perimeter security and the next phase to build the end-point security platforms. The additional staff will be needed to help departments secure their endpoints and to proactively search for vulnerabilities in our network.).

Report on Selected Executive Branch Departments' Information Technology Expenditures

In March 2016, the State Auditor published a report on the review of selected executive branch departments' IT expenditures for the fiscal years 2011 through 2014. The review was requested by Senate Concurrent Resolution No. 162 of the 2015 Legislature and was conducted by the Auditor's office and the certified public accounting firm of Accuity LLP.

The State Auditor's "Report on Selected Executive Branch Departments' IT Expenditures" is available online at http://files.hawaii.gov/auditor/Reports/2016/16-01.pdf and includes ETS' response letter at the end of the report. In summary, the ETS letter states:
- ETS agrees with the report;
- ETS looks forward to working with the DAGS Accounting Division to implement consistent accounting codes and criteria to ensure improved accountability with regard to departmental IT expenditures; and
- in December, ETS launched new IT governance processes as an Administrative Directive (AD 15-02) to further strengthen program governance across the Executive Branch.

DISCUSSION:

In discussion, CIO Nacapuy restated the objectives of the group and explained that its recommendations would be formally submitted at a future ITSC meeting. He then explained that ITSC discussion and appropriate action would take place at a subsequent meeting after that, pursuant to HRS §92-2.5.

CIO Nacapuy also shared the following first-year accomplishments since he became State CIO (these statistics have been updated as of the date of this report):

1. Senate Bill 2807 passed to consolidate two IT programs under the CIO
2. Expedited transition to Office 365 — 12,400+ State personnel
3. Rolled out digital signature program – 50,000 transactions and counting across State departments
4. Created IT Governance process to ensure no further failed IT projects
5. Established backup data center at UH
6. Assisted the Department of Labor and Industrial Relations in taking over Hawaiʻi Health Connector functions
7. Launched new tax modernization program
8. Launched payroll modernization RFP with internal State program management office
9. Piloting new IT workforce development program
10. Hired 22 new employees into vacancies
11. Put voter registration online
12. Completed upgrade of Anuenue Interisland Digital Microwave Network
13. Expanded State's open data platform
14. Identified IT cost recovery model: Technology-Based Management (TBM)

The following six CIO priorities were discussed in detail:

Workforce Development
- PURPOSE: Increase the State's ability to modernize government processes, systems, solutions and services while reducing over-reliance on third-party consultants.
- "Cultural change" was identified as the No. 1 challenge facing modernization efforts.
- Strategically, Group members recommended that ETS focus on value rather than technology. For example, tie position requests to specific objectives and justify how each will help departments/governor achieve objectives.
- ETS in collaboration with the Department of Human Resources Development (DHRD) will soon launch the Civil Service IT Broadbanding Pilot Project, which will transition the State from a traditional classification system for IT positions to a system of "broadbanding" (a term referring to wider salary bands more encompassing than those within traditional salary structures). Broadbanding is intended to be more responsive to the operational needs of line departments, in this case as it relates to information technology.
- ETS and DHRD are also launching an Automated Position Description generator.

IT Governance

- PURPOSE: Provide essential State oversight necessary so intended objectives are achieved and positive return on investment (ROI) is realized for the people of Hawaiʻi.
- In the past, there have been too many failures statewide. Contracts have not always been written in favor of the State, and ROI not always considered.
- In December 2015, Gov. Ige and CIO Nacapuy announced a new, mandatory governance process administered by ETS to ensure success for State of Hawaiʻi IT programs and projects.

Services-Oriented Infrastructure

- PURPOSE: Centrally manage Services-Oriented Infrastructure (SOI) to leverage the entire scope of the enterprise and related economies of scale, such as cloud services, data management, data center, network, security, and unified communications.
- Examples include the following:
  - Electronic Signature Services (eSign Services)
    - Leveraged statewide enterprise for favorable license agreement
    - 50,000+ unique eSign transactions processed since launch
    - Thousands of active users among key executive branch decision makers and administrative staff
  - Office 365 Project (Email+Word+Excel+Other Software)
    - 12,400+ Office 365 licenses
    - 9,400 since May 2015
    - Benefits: fortified security, greater disaster recovery capability, expanded applications and services, added tools for collaboration, and long-term budget sustainability
  - Cloud Services
    - 400+ virtual servers in the Hawaiʻi Government Private Cloud
    - Voter registration online
    - Cloud PBX

Enterprise Programs & Projects

- PURPOSE: Maximize positive ROI by leveraging economies of scale and setting standard platforms for IT systems
- Examples include the following:
  - Enterprise Resource Planning (ERP) "Targeted Strategy"
  - Human Resources Management System (HRMS) upgraded in early 2015
  - Statewide Building Asset Management System (SBAM) went live in September 2015
  - Enterprise Payroll and Time & Attendance RFP issued in February 2016 and vendor selection in June 2016.
  - Tax System Modernization Project
    - Launched in 2015 and meeting benchmarks
    - ETS serving Independent Verification & Validation (IV&V) role
  - Uniform Chart of Accounts and Standard Taxonomy
    - Consistent accounting codes and criteria essential to improving accountability with regard to departmental IT expenditures

Open Government
- PURPOSE: Restore the public's trust in government by committing to reforms that increase efficiency, reduce waste, and improve transparency and accountability (an Ige Administration priority)
- Examples include the following:
  - State Web Portal — eHawaii.gov
    - Collaborative efforts of ETS personnel 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
  - Open Data Portal — data.hawaii.gov
    - Utilized by the Executive Branch, Department of Education, City and County of Honolulu and Counties, University of Hawai'i and private partnerships
    - Published 660+ datasets with more than 391 visualizations and over 3,000 page requests per day
  - Open Performance Dashboard — dashboard.hawaii.gov
    - Office of Hawaiian Affairs (OHA) Dashboard — dashboard.hawaii.gov/oha
    - Aloha+ Challenge Dashboard — dashboard.hawaii.gov/aloha-challenge

Cybersecurity
- NOTE: While it is ETS' practice not to disclose details of cybersecurity strategies and tools in a public setting, CIO Nacapuy shared the following updates with group members:
  - ETS is building staff and security tools capacity for alerting and/or corrective and proactive action spanning tens of thousands of desktops and servers
  - ETS is working with the federally funded Center for Internet Security (CIS) / Multi-State Information Sharing & Analysis Center (MS-ISAC) that monitors and responds to threats and attacks on network
  - As noted above, the 2016 Legislature approved three security positions in the supplemental budget request, including a CISO.

Other Discussion
CIO Nacapuy requested that group members suggest measurable benchmarks for each of the above CIO priorities.

The Group also discussed the following possible tactical recommendations:
- Once the ETS Strategic Roadmap is established, take a more proactive public relations approach highlighting strategy and progress.
- Consider partnering with departments' IT personnel to support the CIO at legislative hearings/meetings. This would take coordination with departments and potentially using the CIO Council in a different way.
- Consider holding a CIO Council Strategic Planning Session at the Interisland Airport Meeting Center.

RECOMMENDATIONS:

The following are recommendations to the ITSC for operationalizing statutory mandates, public outreach, and accountability.

1. Adopt the "CIO Priorities" as metric categories under which measureable elements will be recorded and tracked to assess the CIO's overall effectiveness year-over-year.

2. Add "Cost-Transparency" as an additional metric category.

3. Report on these metrics in a new "IT Steering Committee Assessment of CIO Effectiveness" section provided within the CIO's Annual Report to the Legislature *(Pursuant to HRS §27-43(e), the CIO is required to submit an annual report to the governor and the Legislature no later than 20 days prior to the convening of each regular session of the Legislature on the activities and programs under the authority of the CIO and the ITSC, and the expenditures of all moneys received from all sources and deposited into the information technology trust account and the shared services technology special fund).*

Measureable elements and timetables within these metric categories should include but not necessarily be limited to the following:

Cost-Transparency

Date	Recommendation
September 2016	Collect departmental IT roadmaps (under new authority provided under Act 58, SLH 2016).
November 2016	Create ETS IT strategic roadmap, incorporating and aligning information from departmental IT roadmaps.
December 2016	Publish 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.
December 2016	As a companion to the roadmap, create a publically accessible online dashboard to track progress.
July 2017	Deploy Uniform Chart of Accounts
June 2018	Demonstrate trend in the reduction of fix-cost contracts statewide for FY17-19 biennium by 10 percent to maximize efficiency.
Annually	Hold Hawaiʻi Digital Government Summit annually to share strategic roadmap.

Workforce Development

Date	Recommendation
Summer 2016	Launch Hackathon / Code Challenge as annual event (Hawaiʻi Annual Code Challenge) to engage student and professional tech community in improving State government while developing and supporting local talent.

January 2016	Show no more than 10 percent vacancies within ETS.
June 2017	Demonstrate the effectiveness of the Civil Service IT Broadbanding Pilot Project and launch.
June 2018	Established and launch career path for IT workers across the State, in conjunction with IT Broadbanding project as a permanent policy statewide.

IT Governance

Date	Recommendation
Determined by project-specific timetables and/or IV&V benchmarks	Demonstrate the effectiveness of IT Governance through the successful completion of projects identified in Section 41, Act 119, SLH 2015, as well as projects identified under Enterprise Projects & Programs (below).
October 2016	Deployment of citizen-facing policy site
Annually	Continuous deployment of statewide policies

Enterprise Projects & Programs

Date	Recommendation
June 2017	Issue RFP for State Web Portal Program
	Demonstrate successful implementation of:
IV&V Benchmarks	• Implementation of Tax System Modernization Project
June 30, 2018	• Enterprise Payroll and Time & Attendance
June 30, 2018	• KOLEA Phase 2 (Launch)
June 30, 2018	• Finance Modernization Project (Launch)
	Demonstrate sustainability and integration (with other ERP modules) of:
June 30, 2018	• Human Resources Management System
June 30, 2018	• Statewide Building Asset Management System

Services-Oriented Infrastructure

Date	Recommendation
January 2017	Demonstrate progress and success of: • eSign Services • Office 365 Project • Government Private Cloud / Cloud Services
June 2018	Increase capability to provide tech support to departments as enterprise service.
June 2018	Increase capability within ETS to create constituent-facing applications (i.e. homelessness, traffic, etc.).

Open Government

Date	Recommendation
October 2016	Establish web accessibility standard and launch statewide training resources.

December 2016	Launch ETS Strategic Roadmap Dashboard.
December 2016	Establish policy for exposing public data.
December 2016	Establish policy addressing copyright of State web content.
June 2017	Evaluate effectiveness of State Web Portal program and model, and issue request for proposals in line with the recommendations of the Access Hawaiʻi Committee.

Cybersecurity

Date	Recommendation
November 2016	Set goals for the State's transition from consultant-dependent cybersecurity operations to State personnel.
December 2017	Fill all available ETS cybersecurity positions.
January 2017	Establish cybersecurity response plan.
June 2017	Expand Federal partnerships.