HAWAII INFORMATION TECHNOLOGY STRATEGIC PLAN

OFFICE OF ENTERPRISE TECHNOLOGY SERVICES

APPROVED AS OF APRIL 25, 2019

BACKGROUND

The Office of Enterprise Technology Services (ETS) was established by Hawaii Revised Statutes §27-43. ETS is headed by a full-time chief information officer (CIO) to organize, manage, and oversee statewide information technology. The chief information officer is appointed by the governor and reports directly to the governor. A key responsibility of the CIO is to develop, implement and manage the state information technology strategic plan.

The Hawaii Information Technology Strategic Plan was developed with input from stakeholders including the staff at ETS, representatives from departmental business and IT staff, and members of the community. The final plan has been approved by the state Information Technology Steering Committee for implementation.

PURPOSE

The purpose of this Strategic Plan is to:

- Clearly articulate the State Information Technology future vision, mission, strategic priorities, expected outcomes, major initiatives to achieve those priorities, and responsible owners for key plan elements.
- Establish a system for implementation of the plan over the first year and next four years.
- Provide guidance to ETS and department IT organizations to help with alignment throughout the state.
- Create an instrument to support awareness and accountability for all parties to the strategic plan.
- Fulfill the requirement of Hawaii Revised Statutes §27-43 and House Concurrent Resolution 94.

VISION, MISSION, VALUES

The Vision, Mission, and Core Values statements that guide the Strategic Plan are listed on the following page:

VISION, MISSION, CORE VALUES

VISION STATEMENT

Transformative information and technology-enriched government that serves all the people of Hawai‘i and the ‘āina*

MISSION

Seamlessly blend innovative IT with well-engineered business processes to deliver and support dynamic and sustainable systems that empower our workforce to accelerate excellent outcomes in support of the state’s policies, decisions, operations, and services.

CORE VALUES

Aloha	We treat everyone with dignity, respect, and kindness, reflecting our belief that people are our greatest source of strength.
Kuleana	We uphold a standard of transparency, accountability, and reliability, performing our work as a government that is worthy of the public’s trust.
Laulima	We work collaboratively with business, labor, and the community to fulfill our public purpose.
Kūlia	We do our very best to reflect our commitment to excellence.
Pono	We strive to do the right thing, the right way, for the right reasons to deliver results that are in the best interest of the public.
Lōkahi	We honor the diversity of our employees and our constituents through inclusiveness and respect for the different perspectives that each brings to the table.
Ho‘okumu	We continually seek new and innovative ways to accomplish our work and commit to finding creative solutions to the critical issues facing this state.

*The ‘āina (land) is not just soil, sand or dirt. The ‘āina is a heart issue for the people of Hawai‘i. The very word ‘āina brings forth deep emotion evolved from ancestral times when people lived in nature as an integral part of it. We chose to incorporate the ethical, philosophical, and spiritual aspects not only present in the state's vision and mission statements, but also present in the culture that makes Hawai‘i Hawai‘i.

STRATEGIC PRIORITIES

Our IT Strategic Priorities reflect 7 key focus areas necessary to take full advantage of the state's investments and attain long-term success:

Partner for Successful Outcomes	Shape the partnership between government lines of business and IT by creating a standard framework to ensure successful outcomes. ❖ *Team Lead: ETS Enterprise Program Manager*
Expand Statewide Cyber Security Strategy	Expand the statewide cyber security strategy to protect the State's IT infrastructure and constituent data through adoption of cyber security industry best practices across the State's IT systems. ❖ *Team Lead: ETS Chief Information Security Officer*
Enhance the Value of State Data	Maximize the value of State data by designing, implementing and governing State systems for data stewardship, sharing, and public use. ❖ *Team Lead: ETS Chief Data Officer*
Optimize Enterprise Systems	Optimize ETS enterprise systems to leverage the state's investment in centralized IT services. ❖ *Team Lead: ETS Chief Operations Officer*
Extend IT Portfolio Governance	Extend the State IT Governance Model to better align the state's functions with resources and ensure the State follows industry best practices and garners the full benefits of its investments. ❖ *Team Lead: ETS Enterprise Architect*
Implement Dynamic and Sustainable IT Operations	Implement dynamic and sustainable IT operations to ensure business systems are up-to-date and ready to support the current and future needs of business users and citizens at all times. ❖ Team Lead: ETS Chief Governance Officer
Digital Workforce Development	Establish a continuous learning culture and growth mindset to modernize how we work and enable the state to develop and sustain the digital workforce needed in a constantly evolving IT world. ❖ *Team Lead: ETS Personnel Officer*

IMPLEMENTATION

For each of the seven Strategic Priorities, the following objectives will be implemented.

Near-Term Objectives (FY 2020: 12 months)

- Establish a strategy governance process, executive sponsor, charter, program lead, working group, and user groups
- Develop a high-level prioritized reference model for best practices in tactics, techniques, and procedures and begin measurement
- Establish a high-level Capability Maturity Model measurement framework and begin measurement
- Plan & begin implementing change management efforts
- Team Leads begin reporting to IT Steering Committee at each ITSC Meeting

Longer-Term Objectives (FY 2021-2024, Years 2-4)

- Continue to operate Governance process
- Increase successful implementation in prioritized reference model and adjust as necessary
- Capability Maturity Model: Increase level attained and granularity for state, departments and agencies
- Identify & drive next-tier legislative changes/additions
- Adjust the Strategic Plan elements to maintain a current and relevant plan
- Team Leads continue reporting to IT Steering Committee during each ITSC Meeting

Additional Documentation

A reference book of work products developed during the strategic planning process will be used by ETS, the ITSC, team leads and working groups. It is presented as a separate volume that includes situation analysis, workshop notes, and detail for each strategic priority including Microsoft Word and PowerPoint versions.

MAHALO NUI LOA

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Keith Miyamoto, Employees' Retirement System	

IT STEERING COMMITTEE

Douglas Murdock (Chair), Office of Enterprise Technology Services, State of Hawaii

Todd Nacapuy, prior Chief Information Officer

Benjamin Ancheta, Ekahi Health System	Kelly Taguchi, Spectrum
Jared I. Kuroiwa, KHON2	Kevin Thornton, Hawaii State Judiciary
Aryn H. K. Nakaoka, Tri-net Solutions	Kyle Yamashita, House of Representatives
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Strategy: Partner for Successful Outcomes

Shape the partnership between government lines of business and IT by creating a standard framework to ensure successful outcomes.

Desired Outcomes

- *Successful business process implementation*
- *IT systems are well-engineered and appropriately designed for their intended use*
- *Effective partnership between IT and business*
- *Procurement efficiency and cost savings*
- *Standard governance, business process re-engineering, program management, organizational change management and procurement systems followed*

Expected Benefits

- *Business process outcome improvement*
- *Confidence in state's ability to implement systems*
- *ETS/CIO are broker of technology solutions*
- *Successful procurement, design and implementation of department and agency IT projects*

Expected Challenges

- *IT may not have "consultant" skills to aid business*
- *Culture shift – both IT and business will need to see the value and initiate partnership*
- *Trust & understanding may be lacking between business & IT*
- *Time & re-prioritization – using consultants vs. State IT*

Key Strategic Stakeholders

- *Functional business owner/decision-maker*
- *IT leaders and next-tier teams tasked with the work*
- *Governance Groups*
- *Procurement*
- *Cabinet – buy-in to drive culture/process changes*

Metrics

- *Cost, schedule, and performance on development*
- *# of re-baselines*
- *CMM and Reference model score*

Strategy: Expand Statewide Cyber Security Strategy

Expand the statewide cyber security strategy to protect the State's IT infrastructure and constituent data through adoption of cyber security industry best practices across the State's IT systems

Desired Outcomes

- *Safeguard state and constituent information*
- *Reduce vulnerability to external threats*
- *Immediate system-wide threat response*
- *Security efficiency through use of AI/ML*
- *Minimize storage of sensitive data*

Expected Benefits

- *Increased public trust in systems, state government*
- *Reduced/eliminated breaches*
- *Cost savings*
- *Safer data, applications, systems*
- *Increased system up-time (True 24/7 availability)*

Expected Challenges

- *Change Management – new systems, role, processes, relationships, behavior expectations*
- *Adequate, skilled staffing*
- *Adequate funding (CISO, staffing, Data Officer, training, technology)*
- *Legacy infrastructure & applications*
- *Evolving nature of threats*

Key Strategic Stakeholders

- *Cyber security specialists*
- *State IT Directors, leaders/management*
- *Employees (buy-in, good security hygiene)*
- *Legislature (funding & resource commitment)*
- *IT product and service providers and industry associations*
- *Federal government*

Metrics

- *# of verified cyber security incidents/year*
- *Training participation*
- *CIS Reference Model Scorings*
- *CMM level score*

Strategy: Enhance the Value of State Data

Maximize the value of State data by designing, implementing and governing State systems for data stewardship, sharing, and public use

Desired Outcomes

- *Data Usage: State data is more valuable for economic and public purposes*
- *Transparency & Accessibility: All appropriate State-stored/managed data is available to the public and to other State departments, agencies, and users*
- *Increased awareness – all stakeholders know what is accessible and why specific data classes are not*

Expected Benefits

- *Increased constituent trust in government and civic engagement*
- *Improved cross-department, cross-agency, cross-sector collaboration that benefits Hawai'i*
- *Broader data visibility leads to problem identification & solutioning*
- *Increased data interoperability & sharing – more opportunity for informed decision-making*
- *Better service delivery & client experience*
- *Decreased redundancy – greater efficiency in government*

Expected Challenges

- *Change Management – new systems, processes, relationships, expectations (Culture of Sharing)*
- *Inconsistency across agencies – resistance to standardization*
- *Culture – public interest vs. sole client focus*
- *Adequate funding*
- *State & federal law – inter-agency sharing, confidentiality rules*
- *Fear of data integrity, quality, security, ownership/governance*

Key Strategic Stakeholders

- *Data Stewards: Department and program leadership (buy-in, commitment, support, use, reporting)*
- *State leadership and employees*
- *Office of Information Practices (OIP) and Attorney General*
- *Federal agencies*
- *Legislature (funding, policy changes)*
- *Open Data advocates and users including businesses*

Metrics

- *Visits to data.hawaii.gov site*
- *# of data sets inventoried and classified*
- *% of data sets available on data.hawaii.gov*
- *Reference Model & CMM Scores*

Strategy: Optimize Enterprise Systems

Optimize ETS enterprise systems to leverage the state's investment in centralized IT services

Desired Outcomes

- *Decreased IT costs and redundancy*
- *Role clarity, increased employee retention*
- *Streamlined, more effective communication*
- *Accelerated execution: Procurement, SDLC*
- *Enterprise systems are well-engineered and appropriately designed for their intended use*

Expected Benefits

- *Seamless operation of enterprise systems*
- *Expanded service catalogues*
- *Service level agreement transparency*
- *Prioritization of investments*

Expected Challenges

- *Large catalogue of systems including NGN, ERP/HRMS/Payroll, FAMIS/DataMart, Office 365, identity management (Active Directory), land mobile radio, GIS, eSign, hosting platforms (Mainframe, GPC), SharpCloud, cybersecurity suite, open data platforms, and Access Hawaii digital government portal*
- *Adequate skilled staffing and funding*
- *Change Management – new systems, role, processes, relationships, expectations*

Key Strategic Stakeholders

- *Executive branch department heads (buy-in, commitment, engagement/support, use, reporting)*
- *Citizens using open data or digital government systems*
- *DHRD (staffing)*
- *Legislature (funding)*
- *Employees (continuity of leadership, engagement)*

Metrics

- *Reference Model & CMM Scores*
- *SLA measures for systems*

Strategy: Extend IT Portfolio Governance

Extend the State IT Governance Model to better align the state's functions with resources and ensure the State follows industry best practices and garners the full benefits of its investments.

Desired Outcomes

- *Proactive and transparent portfolio planning and management though system life cycle*
- *Transparency into cost, schedule and performance and re-baselining of projects*
- *Sharing and reuse of existing hardware and software*
- *IT systems are well-engineered and appropriately designed for their intended use*

Expected Benefits

- *Transparency into system investment, performance and lifecycle including planning, investments, system health, modernization, end of service and system replacement*
- *Better planning by ETS and departments resource leveling to avoid spikes in budget and staff levels*
- *A more effective accountability framework*

Expected Challenges

- *Gathering, organizing and analyzing portfolio data from across the enterprise*
- *Resource constraints – funding, limited skillsets*
- *Buy-in to adopt required standards, shared services, common platforms vs. customized habits, systems*
- *Organizational commitment to share data*
- *Selecting appropriate performance indicators & best practices*

Key Strategic Stakeholders

- *State departments, agencies – IT and business partners*
- *ITSC*
- *Legislature*
- *Public/constituents/interest groups*
- *Vendors*

Metrics

- *# of systems monitored*
- *% of systems with complete information*
- *# of re-baselines*
- *Reference Model & CMM Scores*

Strategy: Implement Dynamic and Sustainable IT Operations

Implement dynamic and sustainable IT operations to ensure business systems are up-to-date and ready to support the current and future needs of business users and citizens at all times.

Desired Outcomes

- *IT Systems can be quickly configured to meet business needs*
- *Systems are healthy, stable and upgradeable*
- *IT systems are well-engineered and appropriately designed for their intended use*
- *State quickly benefits from new technology*
- *Legacy systems decommissioned*

Expected Benefits

- *Faster response to changing business needs*
- *New features available to businesses as soon as added*
- *System health maximized and down-time reduced*
- *Reduced risk in cyber security*
- *Reduced cost of hardware/software development, operation & maintenance*

Expected Challenges

- *Skills gaps in risk management & Agile methodology*
- *Procurement feature/process adds/changes needed*
- *Requires a long-term funding plan*
- *Differing agency priorities*
- *ITSM & GRC tools (skills & processes)*

Key Strategic Stakeholders

- *Business users & leaders*
- *Tech implementors & operators*
- *Citizens, Customers*
- *Legislators, Cabinet & Governor*
- *Procurement*

Metrics

- *# of systems on legacy /IAAS/PAAS/ SAAS*
- *Version and patch currency at n-1*
- *Reference Model & CMM Scores*

Strategy: Digital Workforce Development

Establish a continuous learning culture and growth mindset to modernize how we work and enable the state to develop and sustain the digital workforce needed in a constantly evolving IT world.

Desired Outcomes

- *State government consistently attracts high quality candidates for all IT job openings*
- *Culture and work environment that promotes/encourages remote work and flexibility*
- *Re-branding of government workforce as an Innovation Center with a culture that embraces digital tools/tech, flexible/remote work environment*

Expected Benefits

- *Build recruitment, hiring, training, assignment and staffing models*
- *Qualified talent at all levels (apprenticeship, entry, senior, enterprise-level)*
- *Expanded learning and cross-training to have some level of "generalists" depending on job class/type*
- *In-house development of IT talent*

Expected Challenges

- *Retention/turnover – pay, upward mobility issues*
- *Skillsets – need to be able to deal with legacy & new tech*
- *Competition with private sector*
- *Antiquated banding/hiring processes & rules*
- *Current climate, lack of learning/growing opportunity*

Key Strategic Stakeholders

- *Current & potential employees*
- *Unions (legislative change support)*
- *CIO & IT leadership*
- *Legislature*

Metrics

- *Vacancy aging*
- *Reference Model & CMM Scores*
- *Training completed*
- *Internal Promotions*