State of Hawai'i
IMT
OFFICE OF INFORMATION MANAGEMENT AND TECHNOLOGY

BUSINESS AND IT/IRM TRANSFORMATION PLAN

PROJECTS

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

There has been much analysis of the reasons for the public sector's poor track record with IT, from inside and outside government. There are specific difficulties relating to IT services, such as difficulty in specifying requirements and complexity. Important factors for success include ensuring the IT project contributes to wider departmental objectives; capable leadership; good relations with suppliers; excellent project and risk management; and involving stakeholders in the project as early as possible.

In September 2011, the state released the first-ever comprehensive assessment of its IT assets, policies and procedures. The baseline report identified 204 services delivered by state government employees and over 500 applications currently in use. The recommendations and findings in the report provided the basis for the priorities and projects identified in the transformation strategy. One of the key recommendations in the report was to provide enterprise focus on projects.

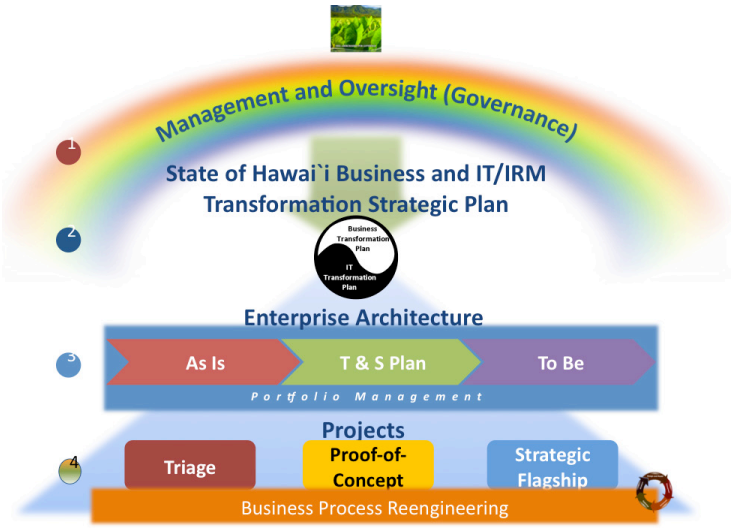
As a step toward that recommendation and the goal of providing greater transparency and public accountability on how the federal government invests in IT, this report provides a high level draft of the State of Hawai'i technology investments to be initiated and executed during FY2012-2013. This document contains ROM estimates on budgets and schedules and is dependent upon resources, procurement, and is subject to change as initiation and planning when the individual projects begin.

This report contains the draft OIMT project summary. This report covers three types of transformation projects as outlined in the State of Hawai'i strategic plan:

- Triage Projects or Immediate-Term Projects–
  A project or initiative that must begin now in order to have maximum impact and in order to prepare for future actions of Near- or Long- Term projects. Completion for immediate actions will be determined by the magnitude of the effort; however, it should be shorter in duration than Intermediate- or Longer- Term efforts.

- Pilot Projects or Near-Term Projects–
  A project or initiative that can begin now, but with somewhat of a lesser urgency than Immediate-term activities. These projects may be completely selfcontained without dependencies to Long-Term activities but may also prepare for the initiation of Long-Term initiatives. Completion of Near-Term actions will be determined by the magnitude of the effort and will generally take more time to complete than Immediate-Term projects but less time than Long-Term efforts.

- Major Initiatives Support or Long-Term Projects –
  A project or initiative that can beginnow due to urgency, complexity, and overall length of time to plan and execute. These projects may have key dependencies with associated Immediate- and/or Near-Term activities that must be completed prior to initiation and/or completion of a Long-Term project. Completion of Long-Term activities will be determined by the magnitude the effort takes and must be longer to complete than Immediate- or Near-Term projects.



1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this document is to provide an overview of the Office of Information Management Technology's projects that are either closed, in-progress, or scheduled for FY2012-2013. With a general overview of the projects and programs this document is intended to provide a vehicle for stakeholder involvement and communication.

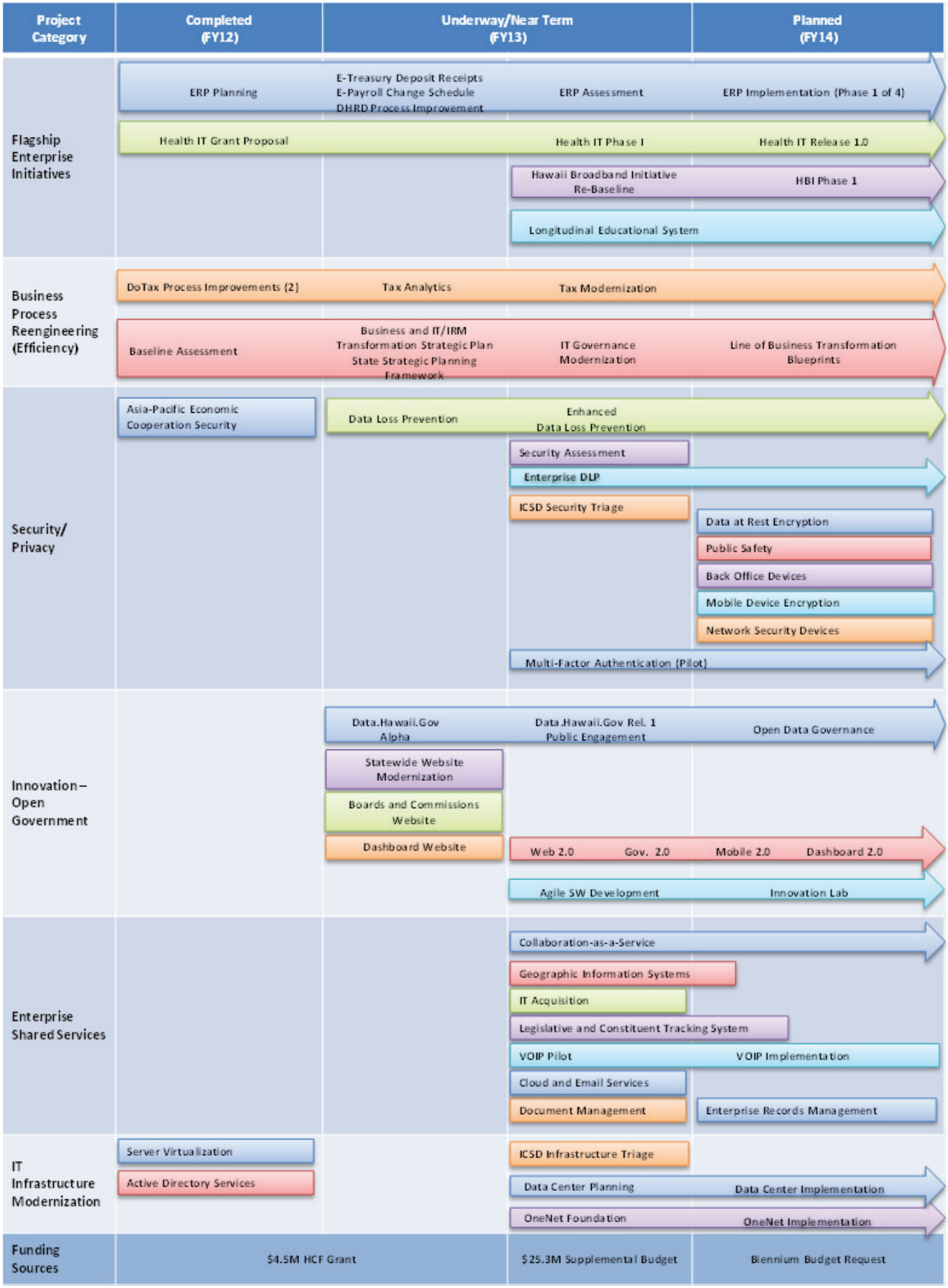
1.2 SCOPE

This document covers only projects that have been in process since the formation of OIMT. The projects listed within this document will fall under the oversight of OIMT, but may be managed by OIMT, departments, divisions, or through consulting services. The document exists as a high level framework of the projects and should not be construed as a final project portfolio for the State of Hawai'i nor OIMT. This document contains ROM estimates on budgets and schedules and is dependent upon resources, procurement, and is subject to change as initiation and planning when the individual projects begin.

The overall budget for projects in general funds will go toward the following potential projects:

- Triage Projects
- IT/IRM Foundational Initiatives
- Business Process Reengineering
- IT Pilot Integration Projects
- Planning & design phase of the statewide financial, acquisition & human resource management system

The diagram below represents the notional portfolio going forward. The categories represented are subject to change as the portfolio develops.


Project Category
Completed (FY12)
Underway/Near Term (FY13)
Planned (FY14)
Flagship Enterprise Initiatives
ERP Planning
E-Treasury Deposit Receipts
E-Payroll Change Schedule
DHRD Process Improvement
ERP Assessment
ERP Implementation (Phase 1 of 4)
Health IT Grant Proposal
Health IT Phase I
Health IT Release 1.0
Hawaii Broadband Initiative Re-Baseline
HBI Phase 1
Longitudinal Educational System
Business Process Reengineering (Efficiency)
DoTax Process Improvements (2)
Tax Analytics
Tax Modernization
Baseline Assessment
Business and IT/IRM Transformation Strategic Plan
State Strategic Planning Framework
IT Governance Modernization
Line of Business Transformation Blueprints
Security/ Privacy
Asia-Pacific Economic Cooperation Security
Data Loss Prevention
Enhanced Data Loss Prevention
Security Assessment
Enterprise DLP
ICSD Security Triage
Data at Rest Encryption
Public Safety
Back Office Devices
Mobile Device Encryption
Network Security Devices
Multi-Factor Authentication (Pilot)
Innovation – Open Government
Data.Hawaii.Gov Alpha
Data.Hawaii.Gov Rel. 1 Public Engagement
Open Data Governance
Statewide Website Modernization
Boards and Commissions Website
Dashboard Website
Web 2.0
Gov. 2.0
Mobile 2.0
Dashboard 2.0
Agile SW Development
Innovation Lab
Enterprise Shared Services
Collaboration-as-a-Service
Geographic Information Systems
IT Acquisition
Legislative and Constituent Tracking System
VOIP Pilot
VOIP Implementation
Cloud and Email Services
Document Management
Enterprise Records Management
IT Infrastructure Modernization
Server Virtualization
Active Directory Services
ICSD Infrastructure Triage
Data Center Planning
Data Center Implementation
OneNet Foundation
OneNet Implementation
Funding Sources
$4.5M HCF Grant
$25.3M Supplemental Budget
Biennium Budget Request

2.0 CLOSED PROJECTS

2.0 CLOSED PROJECTS

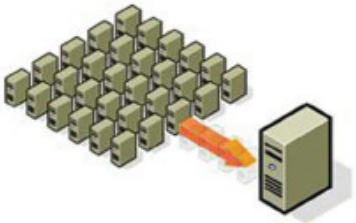
CLOSED TRIAGE PROJECTS

Active Directory/Domain Name Server (AD/DNS) Project

The AD/DNS project was initiated in conjunction with the Server Virtualization project as they are mutually beneficial and together they provide the maximum benefits to the State of Hawai'i technology infrastructure. The AD environment provides central management access rights for users and equipment (servers and computers). In relation to the Server Virtualization project, this provides a better way to manage server resources. From the standpoint of statewide effort, this is the stepping stone towards a central approach to managing the State's computing assets. Additionally the project is the foundation for which future efforts such as identity management and two-factor authentication may take place.

This project required coordination and collaboration between many functional segments within ICSD. The team provided the commitment and dedication to the AD/DNS project in addition to their daily operational responsibilities, as the project tasks included design architecture, procurement of hardware, design implementation, testing and function validation and training, all with an aggressive goal of three months.

The ICSD Virtual Environment Team has implemented a virtual server environment (100 Virtual Machines) that will contribute to a greener footprint for the State of Hawaii by reducing the power consumption and air conditioning currently utilized by the stand alone servers housed in the State's data center. The smaller physical footprint of its hardware will release space for migration and consolidation initiatives that will leverage the physical security and resources (e.g., staff, high-volume copiers, uninterruptible power supply, and emergency generator) of the State's data center. ICSD has demonstrated their ability to successfully accomplish this initiative when provided the right support and impetus.



CLOSED PILOT PROJECTS

DoTAX Document Processing BPR

The Tax Document Processing BPR was a multi-faceted effort, involving other state agencies (DAGS/OIMT) and outside entities, SAIC & Viable Vision. The leadership of the Department of Tax was a key to the success by supporting the effort. Change is a challenging effort on a good day. Ultimately the BPR resulted in the following benefits in March 2012:

- 35% increase of returns processed within 14 days
- 74% increase of checks cashed within 14 days
- 72% increase of checks cashed within 7 days
- Avg. intake date of refunds being processed was 3 days vs. 45 days in 2011

- 46,509 more refunds (representing an add'l $51,008,039) were issued in FY 2012 than in FY 2011 (for the period July 1 to March 31)

In addition to the DTAX leadership, the Document Processing Section and Information Technology Services Office (ITSO) and System Administration Office and Tax Law Changes (TLC) Ad Hoc group staffs that were willing to explore new ways of doing things and implementing changes. The Document Processing section improved their processes and worked collaboratively to get the forms processed. ITSO, System Administrators and our TLC group improved the IT processes and focused their efforts, so the forms would be ready for processing earlier in the year. All of the above contributions were made with less staff, and they were significant factors in the document processing results.

3.0 CURRENT IN PROCESS PROJECTS

3.0 CURRENT IN PROCESS PROJECTS

IN PROCESS TRIAGE PROJECTS

Data Loss Prevention (DLP)

The Data Loss Prevention solution is a security control that is designed to detect potential data breach incidents in a timely manner and prevent them by monitoring data while in-motion (network traffic). In data loss prevention, sensitive data can be disclosed to unauthorized personnel either by malicious intent or inadvertent mistake. Such sensitive data can come in the form of private or confidential information, intellectual property (IP), financial or patient information, credit card data (PCI-DSS), personally identifiable information (PII) and other information depending on the business and the industry.

IN PROCESS PILOT PROJECTS

Open Data

The goal of open data is to provide the public with free and easy access to high value, machine readable data sets generated and hosted by the federal government. It will enable the public to easily find, access, understand, and will federate data that are generated by the State government, cities and counties of Hawai'i as permitted. For data sets that are already available. Open data emphasizes making it easier for the public to find and discover data in more usable formats. For data not widely available to the public in the past, the focus is on providing data more quickly while still protecting and promoting privacy, confidentiality, and security.

State of Hawai'i Website

In an effort to make government more transparent and accessible, the OIMT is endeavoring to redesign the State of Hawaii's web sites. The vision of this project is to improve usability and organization of information; better meet the needs of the users; create Web pages with a consistent look and feel; incorporate the latest Adaptive/Responsive Design techniques; and maintain functionality currently available on all State web sites.

The project will establish a consistent look and feel for the State of Hawaii's official web sites. The content of each Department's web site will be managed by the Department, but they will all share the same basic layout, color scheme, branding, and functionality.

Website Dashboard

The goal of this effort is to support the mission of OIMT by designing a user-friendly, citizen-centric design template for the State of Hawaii's Web sites. This initiative will assist OIMT in analyzing, designing, evaluating, and testing a common look and feel for the State of Hawaii's official Web sites to ensure that they are usable, useful, and accessible. The new Web site template, as well as the first live implementation of it for the OIMT website, will be assessed for performance, user satisfaction, and usefulness.

Boards and Commissions Website

The developed website will provide standardization of boards and commissions websites which include documents such as meeting notices, meeting agendas, meeting minutes, and meeting packets. Sunshine law requires that the documents be synchronized with the state online calendar. The website should also provide linking of boards/commissions websites to external boards and commissions websites (such as Board of Education). The developed website should have the ability to utilize social networking tools for communications.

Electronic Payroll Change Schedule (ePCS)

This project seeks to automate a portion of the highly manual and paper-centric process to improve efficiency, increase timeliness, reduce errors, and reduce paper costs across the state. By providing a department access to update data into the payroll processing system immediately eliminates the time to produce reports, edit reports, audit reports, transfer the reports, and store the reports. The ability to update data also reduces the number of people managing the payroll numbers that can lead to data entry errors.

Although this project has a limited initial scope, immediate benefits will be realized while building a foundation for further system improvements to meet the needs of the department stakeholders.

Electronic Treasury Deposit Receipts (eTDR)

Treasury Deposit Receipts are used to record and track deposit information from all the various State of Hawaii departments into the overall accounting processes. The form is manually completed and physically routed to Department of Accounting and General Services (DAGS) and Budget and Finance (B&F) for data entry into two financial systems: FAMIS and Great Plains. This project will improve through efficient data entry, data validation, and reduced time to posting, the current TDR and Reconciliation processes by developing an automated process that will post to the two financial systems via file transfer.

Department of Human Resources Development Business Process Reengineering (BPR)

The Department of Human Resources & Development (DHRD), with a staff of approximately 100 employees, administers the personnel system for approximately 34% of the total, or 17,400 employees. The DHRD process encompasses 1,500+ job classifications for all five islands, and in support of 19 State departments. The ESD/Recruitment section is staffed with approximately 20 employees who administer the external recruitment process and interface with departmental HR staff to provide qualified candidates for requested positions.

The ESD External Recruitment business process provides for the identification, recruitment, assessment and acquisition of qualified external applicants to meet identified State departmental needs. The process begins when a requesting department notifies DHRD of the need to pursue external recruitment for a vacancy, and ends when a list of qualified applicants is provided to the requesting department for the purpose of conducting interviews.

The DHRD External Recruitment process currently has a significantly higher work back-log than desired, and is challenged to meet the wave of demands from requesting departments for external applicants. As a result, the time to recruit suitable candidates and fill open vacancies at requesting departments exceeds their desired timeframe. Attempting to meet the large increase in recruitment demands has also placed significantly high strains on internal personnel and ESD resources.

The primary drivers for initiating a Business Process Reengineering initiative in the Department of Human Resources & Development's External Recruiting section are:

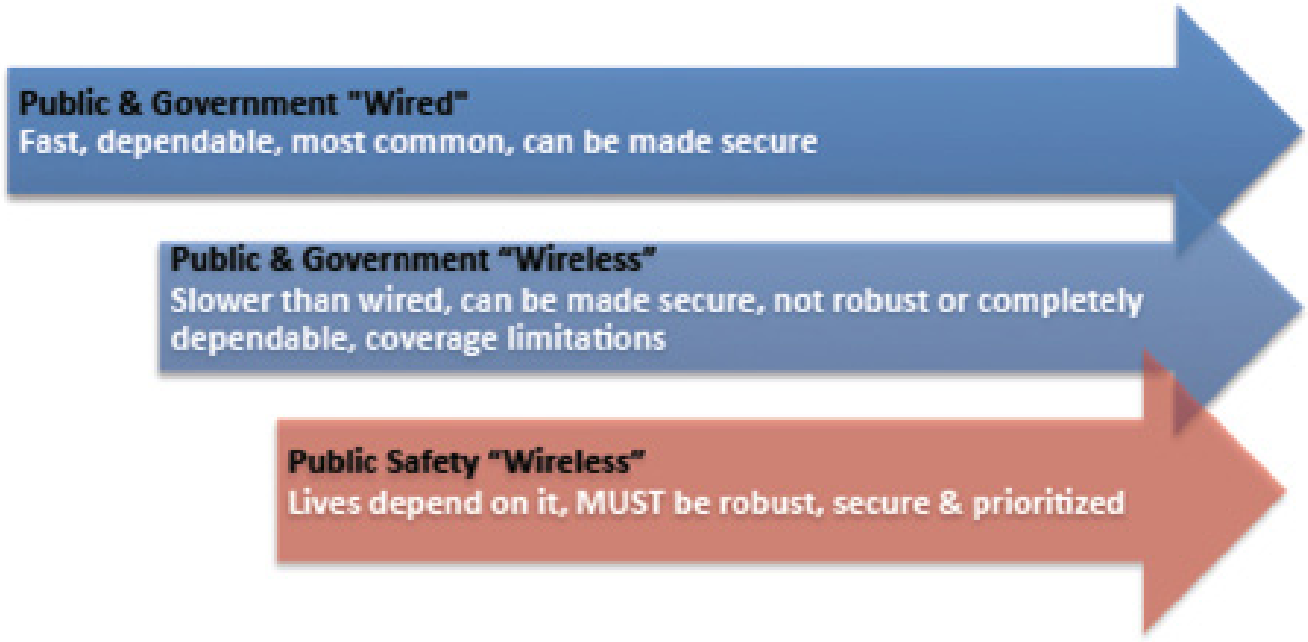
- To increase the Throughput (output) rate so as to decrease the existing backlog of work.
- To provide improved service to the department's customers (other state agencies).
- To reduce the time for the recruitment process (from departmental request to the time of providing qualified applicants).

IN PROCESS MAJOR INITIATIVES

Hawai'i Broadband Initiative

On August 23, 2011, the State of Hawai'i announced the Hawai'i Broadband Initiative (HBI) program, a flagship initiative structured to meet the New Day Plan vision of building a sustainable economy, investing in people and transforming government. HBI is currently underway with the development and deployment of critical broadband services and infrastructure. HBI provides the intellectual and social infrastructure that promotes opportunities and experiences for our people to become an advanced workforce that can compete in the rapidly evolving global marketplace.

Generically, there are three "flavors" of broadband as illustrated below:



- Wired broadband networks have been in existence the longest and are generally common and can be quite fast and dependable.
- In existence a shorter amount of time are wireless networks, which are generally slower than wired networks and can have coverage and reliability issues.
- Wireless networks purpose built for Public Safety wireless are a relatively new notion. FirstNet as envisioned will be built specifically focused on the demanding needs of public safety including high availability, superior coverage, rigid standards, security, and survivability.

Currently, the HBI program is segmented across six departments/agencies and many initiatives or projects, including:

The Department of Business, Economic Development and Tourism (DBEDT) and the Department of Commerce and Consumer Affairs (DCCA) are participating in different aspects of the HBI to establish the business and regulatory environment for ubiquitous access to wor1d-class gigabit-per second broadband services at affordable prices throughout the State.

The State CIO and the Office of Information Management and Technology (OIMT) is in process of releasing the ten-year Business/IT Transformation plan for the state, which identifies the HBI as a flagship program and establishes the resources required to implement it successfully.

Departments of Transportation (DOT), Defense (DOD) and Accounting and General Services (DAGS) are working together to construct the maritime wireless broadband network to connect all commercial ports in the State for increased security.

The federally-funded project is run by the University of Hawai'i (UH) and the Department of Education (DOE) to install broadband-capable fiber-optic cable to every school, community college and library in the State by 2013.

Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 allocated spectrum for the creation of a nationwide broadband network dedicated to public safety communications—a major success for states' efforts to achieve interoperable communications among first responders and the public safety community. The law dramatically changes the future of public safety communications by creating a public safety broadband network (PSBN) more formally known as FirstNet that will allow first responders and other public safety officials to share mission-critical data and eventually mission-critical voice communications. The act specifies that there is coordination with the appropriate federal agencies, our congressional delegation, State DOD and each of our counties.

The State of Hawai'i has many impressive broadband projects underway with departmental participation that underscore the importance of the program. There must be unification for these disparate efforts within an established, disciplined program management framework with continual progress reports. Historically, major programs in Hawai'i have not been managed or system engineered in accordance with a well-defined methodology or set of practices. A comprehensive and integrated program plan is required with clearly defined scope, cost, schedule, and a risk management strategy to identify and fill any gaps.

The State's Chief Information Officer (CIO) has been appointed by the Governor to serve as the Program Executive for the HBI going forward. The CIO and OIMT will apply the governance structure and project management the HBI program.

A long-term strategy and vision for the HBI Program will be developed with approval of the final strategy, vision, and plan made by the Governor's Chief of Staff. An HBI Program Manager will support the CIO by executing strategy, managing all aspects of the program lifecycle and coordinating all requisite details across departments and disciplines.

Health IT

Health IT projects are guided by federal initiatives to create systemic improvements in quality and access to healthcare while reducing costs. Important elements include aligning State HIT infrastructure with federal strategies for Health Information Exchanges (HIE) and Health Insurance Exchanges (HIX). Programs implementing the connected Meaningful Use of Electronic Health Records (EHR) are anticipated by Centers for Medicare and Medicaid Services, (CMS) to reduce costs. This is expected via electronic methods minimizing adverse drug events, facilitating provider workflow, and enhancing secure communication of timely patient information through health exchange. A study by the Center for Information Technology Leadership (The Value of Personal Health Records, www.citl.org/publications) predicts EHR adoption to create 9% cost savings annually, and facilitating further healthcare system efficiency and quality gains. In the State Health Transformation strategy, health IT is a foundational element to enable reform and improvement of the delivery system, payment, and healthcare purchasing. The State is working collaboratively with health industry partners to advance patient-focused care innovations such as Accountable Care Organizations (ACO), Patient-Centered Medical Homes (PCMH), Shared Savings Models, and Bundled Payments. These plans for care system change require the establishment of robust, connected statewide health IT infrastructure.

Federal Health Information Exchange (HIE) initiatives funded by the HITECH Act aim to rapidly build health IT infrastructure and to drive the Meaningful Use of health information across the healthcare system both within and across states. The goals are to enable patient-centric information flow, improving quality and efficiency of care (Office of the National Coordinator for Health IT). The Hawai'i Health Information Exchange (HHIE) is the state-designated entity to for this initiative. Programs furthering provider EHR adoption and connection to the HHIE are a priority to link all elements of the health system.

The State OIMT is working with the Hawai'i HIE and state health-related agencies such as the Department of Health (DOH) and Department of Human Services (DHS) to securely connect appropriate state systems for information exchange and insurance exchange. Technically, interfaces will connect agencies through a State data sharing hub. The purpose of this State health data hub is to securely facilitate technical capabilities for interagency data operations. The State will in turn utilize the HHIE as the state partner for outward-facing health data sharing with healthcare providers, and the Hawai'i Health Connector as State-certified health insurance exchange (HIX).

Multiple State agencies including the Department of Human Services are redeveloping systems and interfaces to securely exchange data with the Health Connector. Primary State projects include building electronic data interchanges between the Connector and DHS MedQuest's Hawai'i Prepaid Medical Management Information System (HPMMIS) and new eligibility system. Additional required linkages will create the capacity to perform verifications including benefits eligibility, insurance regulation, and vital records to service operations with the Health Connector and State agencies. Development of DHS' State Medicaid Health IT Plan (SMHP) will guide the planning and execution of multiple key state-led projects to connect health IT infrastructure. The SMHP will outline requirements for Medicaid Meaningful Use incentive program payments to providers for Electronic Health Record systems adoption. Elements of state hub data interconnection planning for the HIX, HIE, and State will be developed in the SMHP. Identified near-term tasks include initially connecting DOH's Syndromic Surveillance, Immunizations, and Electronic Lab Reporting systems to the HHIE, in alignment with federal requirements. In later phases, additional interfaces will offer the ability to connect State EHR patient-management systems to the HHIE for physician requests of patient information. System interfaces to the state hub are to be created for relevant systems in all health-related State departments and attached agencies. Activities to provision these connections include working out data sharing agreements, applicable standard-setting, and programming technical interfaces, comprising implementation and oversight for each of these programs.

The detailed programs are planned to permit health system change. Connecting health systems will facilitate healthcare improvement toward more effective, efficient, and equitable patient care for all at lower cost. Population-level reports from repositories of de-identified health data will enhance health system operations and tracking of statewide health trends. Physician access to patient records across the continuum of care will facilitate better health outcomes for citizens. As electronic health records (EHR) are implemented in increasing numbers of provider practices, connectivity and health analytics on population health information will deliver value from health exchange, improving Hawai'i public health.

Tax Modernization

Tax Analytics Project will contribute to the Tax Modernization initiative at the Department of Taxation (DoTAX). The Tax Analytics project seeks to hire contractors qualified to analyze historical tax data to identify the total amount of taxes which are unpaid and the percentage of those unpaid taxes that are potentially collectable, and to recommend a methodology by which the State could collect those unpaid taxes.

The selected Contractors shall provide the Department of Taxation with technology that will assist the Department to analyze and prioritize delinquent tax debts. Due to data security and privacy considerations, the data must remain in the State's possession at all times. The Department will provide the Contractors a computer in a DOTAX office upon which the Contractor will be able to install its software, access the data, and conduct its analysis.

4.0 PROJECTS FY2013-FY2014

4.0
PROJECTS FY2013-FY2014

Business and IT Reengineering/Governance:

The goal of business and IT governance is to provide the right information to enable decisions leading to a more efficient and effective government, assisted by innovative and cost-effective technology. Good IT governance will also enable the State to be more transparent in its spending, allowing the public to see, in near-real time, the status of its IT investments in terms of cost, schedule, performance, and risk. Ultimately, a strong foundation of IT governance will reduce the cost, shrink the environmental impact, and improve the effectiveness of Hawaii's information and information technology assets. By bringing investment discipline and accountability, reducing duplication, and identifying opportunities for leveraging shared infrastructure and licensing, the small investment requested will save the State millions of dollars each year, while at the same time improving service levels and reducing risk.

Consulting services will support the maturation of the State's IT governance, investment review, enterprise architecture, portfolio management, program and project management, and development and operations management. The consultant will assist OIMT to:

Establish processes, templates, and decision-support tools for the rational, systematic evaluation and prioritization of proposed IT investments from an enterprise standpoint, accounting for return on investment, risk, and impact on business operations;

- Develop and enhance the enterprise architecture of the State of Hawaii, to identify the business performance metrics, business processes, information sources and exchanges, analysis requirements, organizational structures, policies and mandates, IT systems and infrastructure, and standards, as well as the relationships among all these components.
- Manage the State's IT business and IT investments as a portfolio, reducing duplication and incompatibility of IT systems, applications, and databases to promote sharing of information and solutions.
- Implement standardized processes for initiating, planning, executing, controlling, and closing business and IT projects by establishing a Project Management Office, which will provide State agencies with resources, expertise, templates, training, and assistance to help ensure projects meet cost, schedule, and performance standards.
- Manage the System Development Life Cycle (SDLC) of new IT systems, through concept, design, development, testing, deployment, operation, and ultimately retirement. Viewing and managing new systems from a lifecycle perspective reduces risk and uncertainty, improves performance, and yields a greater return on investment. Agile development techniques focus on delivering many small releases often, reducing development time and expense, and enabling the system developers to be more responsive to customer needs.
- Transition the operating model of the enterprise infrastructure and services to a customer-focused model based on the recognized best practice of IT service management consisting of Service Strategy (business relationship, demand management, financial management); Service Design (service catalog, level, availability, continuity, and capacity planning); Service Transition (change, configuration, and release management), Service Operation (service desk, application management, problem/incident management, security and identity management); and Continual Service Improvement.

The anticipated project timeline is as follows:
Governance Consulting Support

July 2012 - TBD
(ROM Estimate – Subject to change based on resources and planning)

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	RFP												
2	Award & Contract Negotiation												
3	State Team Formation/Kick-Off												
4	FY14-15 Bienniel Investment Reviews												
5	Architecture Updates												
6	Portfolio Reviews												
7	PMO Support												
8	SDLC Support												
9	Operations Management Support												

Equipment

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	RFP												
2	Award & Contract Negotiation												
3	Hardware/Software Acquisition												
4	State Team Formation/Kick-Off*												
5	System Configuration*												
6	System Test*												
7	Production Deployment*												
8	Training*												
9	System Operation												

** Steps only necessary if the selected system is different from the interim solution OIMT is currently procuring. If the system is renewed on a new contract, operation will simply continue on new contract beginning October.*

Benefits:

The primary benefit from enhanced IT governance comes from avoiding unnecessary or duplicative investments through portfolio management; identifying opportunities for cost savings through improved cross-Departmental investment review and streamlined procurement (via shared service agreements, IDIQ contracts, enterprise licensing agreements, and blanket purchase agreements); preventing failed investments by rigorous project management; more efficient and effective business process outcomes supported by modern information systems; and improved reliability, scalability, availability, security, and capacity of the State's IT infrastructure, and enterprise and mission-specific applications and services through best practice service management.

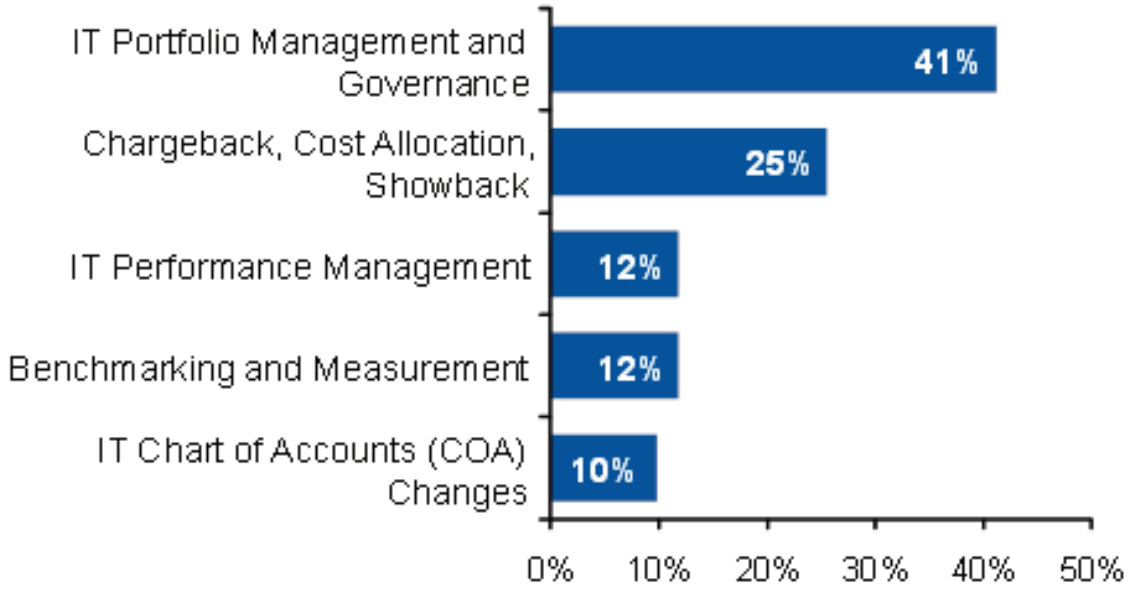
It is difficult to quantify the savings these improvements will provide, since without these systems and processes in place, there is no good understanding of what we are spending today. One major benefit of these foundational investments is that in the future, we will be much better able to see where we are spending our IT dollars, and what we are getting in return. This ability will enable better, more data-driven investment decisions in the years to come, where potential expenditures will be evaluated and prioritized rationally, using the data collected, maintained, and analyzed over time by the governance processes and tools we establish today. Without these fundamental management processes and tools, evaluating investments will continue to be largely a guessing game.

In general terms, we can estimate the potential for cost savings through improved governance by looking at historical norms. The following table from Gartner Research provides average expected saving from a variety of business and IT transformation efforts. Considering governance and management in the narrowest sense – reduction in duplication within the portfolio, improved success of projects via a Project Management Office – the potential savings are significant.

IT Procurement	▪ Open-source Software: 75% Savings in Maint./License ▪ Software as a Service (SaaS): 80% ▪ Enterprise SW Agreement: 20-50% Dropping Maint. ▪ IT Outsourcing Offshore: 10-40%
Cost Savings Within IT	▪ Virtualization & Consolidation: 20% Less Workload ▪ IT Asset Mgt.: 8-10% Per Managed Asset Per Year ▪ PC Power Mgt: 43% Per Year vs. Non-Best Practice ▪ Apps. Dev. Reuse: 18% Over Five Years
Joint Business & IT Savings	▪ Apps. Portfolio Reduction: 50% for 20% Savings ▪ Cancel Projects: Reduce Discretionary Spend by 75% ▪ Teleworking: 20% Reduction in Net Occupancy Costs ▪ PMO: 5-20% Productivity Improvement
Process Improvement, Business Restructuring & Innovation	▪ Business Process Mgt. Technology: 18% Avoidance ▪ Shared IT Services: 15-20% is Typical, 40% Maximum ▪ Territory Mgt. Software: Increase Sales 1-3% ▪ Online Marketing & Lead Mgt: Increasing Revenue 20%

The benefits of a streamlined IT procurement process (via enterprise license agreements and other approaches listed above) are provided in the IT/IRM process re-engineering section, and so are not reflected here, nor are the benefits of the individual projects and investments that will be undertaken under the auspices of the governance structure – these are just the cost savings that can accrue as a result of having a set governance tools and processes in place, as opposed to not having them. Savings are not guaranteed, as they are the result of a disciplined and rigorous approach to managing IT investments over time. Neither are they the result of a one-time expenditure, but in continued support and sustainment of the governance structure. The future cost profile for this support will depend on many factors, such as the licensing approach to the management software (i.e. purchasing perpetual licenses and hosting locally versus subscription to a Software-as-a-Service model); the ability of the State to find, train, and retain qualified project managers; and the speed of deployment of shared enterprise services to replace the multiple, duplicative, Department-level solutions now in place. OIMT's plan funding future years, however, depends less on direct appropriations from the Legislature, and more on a fee-for-service or cost-sharing model among the Departments. As the chart below depicts, a plurality of government IT managers surveyed by Gartner believe that the single reform with the most potential for IT cost optimization is IT Portfolio Management and Governance.

IT Cost-Transparency Elements That Will Help Most With Big IT Cost Optimization



"Contracts and proposals are more complex than ever. Vendors introduce new pricing, licensing models, maintenance options and audit clauses every day. It is nearly impossible to keep up unless you have day-to-day visibility into the market. Gartner does. Our analysts review thousands of hardware, software, services, and telecom contracts and proposals each year, and we identify hard-dollar savings in 75% of the contracts we review. Many reviews lead to multimillion-dollar savings. You may already have access to this incredibly valuable service, and if you do not, we can quickly help you get it."

– Gartner

IT PROCUREMENT PROJECT (STATEWIDE IT PROCUREMENT)

This project is intended to re-engineer the IT Procurement processes. As part of the project, analysis will be conducted to provide immediate benefit on existing contracts and assets.

The anticipated project timeline is as follows:
July 2012 - April 2014

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	RFP												
2	Award & Contract Negotiation												
3	Inventory Verification and Validation Portfolio												
4	Connect with EAD Tool												
5	Analysis												
6	Planning and Execution												
7	Project Close-out												

Benefits:

In conjunction with the IT Asset Management BPR Project (see below), this project provides opportunities to reduce costs, increase staff productivity and improve technology service delivery. These savings can be realized one year after the completion of the project. According to Gartner, IT streamlined procurement and management has the potential to provide reduction in maintenance through enterprise software agreements, savings of maintenance and licensing through use of open-source software as examples. Further savings can be realized through statewide negotiations for hardware and contract services regarding technology investments. Gartner saves IT depts on their IT Capital Expenditure through our hardware, software and services negotiation process

IT ASSET INVENTORY MANAGEMENT (STATEWIDE IT ASSET MANAGEMENT)

This project will provide a statewide view that provides the business analytics of IT assets, which will provide significant savings through standardization, consolidation, security improvements, and virtualization. In conjunction with the IT Procurement Process Project described above, this project allows insight to support re-negotiations of enterprise license agreements (ELA), blanket purchase agreements (BPA), and indefinite delivery and quantity (IDQ) contracts.

The anticipated project timeline is as follows:
July 2012 – August 2014

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	RFP												
2	Award & Contract Negotiation												
3	Asset Verification and Validation Portfolio												
4	Purchase and Link Asset Management Tool												
5	Clean up, consolidate, security analysis, virtualize												
6	Analysis of inventory and potential savings												
7	Report and execution of Savings (BPAs, ELAs, tools)												
8	Project Close-out												

Benefits:

Gartner estimates savings as high as 8-10%. The industry best practices indicate the standard savings is estimated as 5% of H/W and S/W inventory.

STATEWIDE LEGISLATIVE AND CONSTITUENT TRACKING

At many departments, administrative support staff are currently burdened with multi-step and multiple product environments that are manually intensive and prone to errors and duplication of efforts. Obtaining a statewide solution that includes:

- Citizen Relationship Management
- Document workflow such as routing, tracking, approval, etc.
- Managed correspondence features– Data entry, letter creation, letter printing, etc.
- Internet mail management that simplifies the process of answering and managing electronic mail.
- Group calendaring that provides effective scheduling, single place for appointments, activities, events.
- External communications such as eNewsletter, eSurveys, eCommunications, content management, reporting.

These features will allow effective management of constituent correspondence with timely responses, seek ability to better coordinate the Governor's calendar and related communications and reduce hardcopy sharing amongst staff to maximize efficiency of limited resources.

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	RFP												
2	Award & Contract Negotiation												
3	Development and testing												
4	Pilot												
5	Staggered Rollout to Departments												
8	Project Close-out												

The anticipated project timeline is as follows:
July 2012 – June 2013

Benefits:

Standardized processes for constituent and legislative tracking across the state that unifies the data and information for all departments.

ELECTRONIC RECORDS MANAGEMENT EVALUATION AND PILOT

The anticipated project timeline is as follows:

July 2012 - June 2013

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Total Month
1	RFP	■	■	■										3
2	Award & Contract Negotiation				■	■	■	■						4
3	Analysis of Current Environment								■	■				2
4	Gap Analysis to Recommended Future Environment										■	■		3
5	Final Report												■	1
6	Project Close-out												■	1

Benefits:

This project will provide improved security and classification of data as well as information protection and conform to eDiscovery processes and guidelines. This study lays the groundwork to avoid data integrity issues, fines from poorly managed electronic discoveries in litigation, and possible regulatory fines for items such as Personally Identifiable Information (PII).

HEALTH IT

Health information technology (HIT) is an area of technology and information systems that is involved with the health care industry. Work includes both hardware and software with range in activities that includes, but not limited to systems design, telecommunication, system implementation and maintenance. HIT encompasses many healthcare information systems. Under the umbrella of HIT are electronic medical/health record (EXR) systems, the health information exchange (HIE), insurance exchange, Medicaid eligibility system and benefits services to name a few of the initiatives.

The anticipated project timeline is as follows:

July 2012 - June 2013

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	RFP	■	■	■									
2	Award & Contract Negotiation				■	■	■	■					
3	High Level Business Architecture Analysis								■	■	■		
4	Report of improvements for integrated Health Info									■	■	■	
5	Project Close-out												■

Benefits:

HIT is a critical component to support health transformation efforts as it provides the necessary infrastructure to properly support health and human services while retaining data for analysis. In the current environment there are many HIT initiatives acting independently.

The business and IT/IRM project is to conduct an integration study of the various HIT initiatives into an enterprise architect. The benefit of the project is to gain deeper understanding of the overall business process for health services delivery and how best to align technology to support healthcare transformation. This project is critical in laying the foundation for information sharing that would allow for informed policy making.

Additionally, this project can help HIT initiatives avoid costly efforts for future information sharing integration into a potential State HIT hub.

RADIO PROGRAM

The OIMT Radio Program's goal is to achieve excellence in the establishment and operation of radio and microwave systems and facilities ensuring compliance and interoperability to be able to provide the communications facilities and services necessary to meet the State's fiducial responsibilities to its citizens and employees. Risks to be minimized involve general compliance issues with wide-ranging and very serious ramifications: we must work to ensure that first responders and government employees responsible for essential operations have the communications tools necessary to carry out their missions, to ensure interoperability among and between our agencies and partners, to earn and keep the public trust; to keep the public informed, aware, and secure in times of trouble; and to guarantee compliance with State and Federal requirements, to prevent funding issues, additional scrutiny, and loss of State or public confidence.

As the public's agent, the State has a fiduciary responsibility to "be there" before, during, and after emergencies and disasters when all else has failed (the "last man standing" requirement). This most solemn obligation to provide for the common welfare can only be met when the government can communicate with its first responders, essential employees, and partners. We will not survive a Katrina-like response to a disaster or emergency without significant consequences. We simply cannot afford a piecemeal approach to a statewide problem and maintain business as usual.

Regardless of the lure and opportunities of modern and complex technologies, the State's voice communications network, i.e. land mobile radio (LMR) system, used to support public safety and essential government operations is the most fundamental and important wireless service. Emerging technologies such as Broadband LTE have promise for the distant future. However, LTE is far from ready for public safety production use today or in the near future and, even if successful, may never fully supplant an uncomplicated, robust, and reliable LMR system for public safety. The State needs to support the infrastructure build up and build out required to handle the Broadband LTE and in so doing will help LTE become something we can depend upon to be operational and available in dire times when it will be needed the most.

Support of communications interoperability can only occur after the State has properly taken care of the needs of its own agencies and employees, that is, operability comes before interoperability. The State cannot and should not solely rely on others to fill in the communications services gaps. Although partnerships and collaboration are important (see below), the State must have the power and ability to begin and energetically maintain a critical mass of infrastructure, systems, and services both for its own needs and to actually be able to provide resources to its partners in an equitable manner.

The State cannot wait the several days it would take for the deployment of the federal communications emergency communications superstructure. The State must be prepared to step in and provide a basic level of communications and interoperability for both State users and when county systems are overwhelmed or fail. The use of ACU-1000-like field-managed cross connect systems will be deemphasized and system-to-system interconnections, from wire-line to Project 25 (P25) ISSI interconnections, will be promoted. In the field interoperability will focus on the use of standardized frequencies and procedures as developed by the State of Hawai'i SCIP and on the deployment on on-scene low-power repeater packages such as the Transportable Repeater for Interoperable Communications (TRIC) package. The State must not neglect the care and feeding of the TRIC packages and the components of State agency radio caches and must actively coordinate, test, practice using, and refresh these types of initiatives.

State LMR systems are standards based on P25 Phase 1. Although systems will be designed to be forward looking, e.g. P25 Phase 2 compatible, the core infrastructure will be optimized for the better voice quality available on P25 Phase 1. In addition, P25 Phase 1 is required for talk-around (subscriber to subscriber) operation when infrastructure fails or users are out of range of the system. The only permitted modes of operation for all State agencies, including the Department of Education, shall be limited to either Project 25 Phase 1 digital or narrowband-compliant analog FM. To ensure unity and interoperability, State agencies, including the Department of Education, are prohibited from using any other modulation or signaling schemes, such as, but not limited to: TETRA, ETSI dPMR, the NXDN common air interface, Icom Digital Advanced System, Kenwood Nexedge, and/or Motorola Mototrbo. We note that the University of Hawaii has pursued a non-P25 approach to their digital LMR systems at several major campuses.

The Statewide Shared Blended (SSB) provides a stable, reliable, and standards based foundation for day-to-day and emergency interoperability. State agencies currently operating independent LMR systems and stations in the UHF, 700, and 800 bands will move to and augment the SSB LMR system. Operators of VHF systems will be encouraged to move to the 700/800-based SSB where possible. However some activities, such as wilderness fire-fighting, will require some agencies to remain primarily on VHF frequencies. State agency purchases of subscriber radios, portables and mobiles, shall include the purchase to two sets of programming software and cables. One set shall be provided to the ICSD. Procuring programming capability will permit agencies to reprogram radios without waiting for or paying vendors.

Because of the criticality of the island of O'ahu to the economic engine of the State (major port, airport, medical, industry, military, and tourist facilities), the State will endeavor to operate its LMR system independently of the County of Honolulu. Although the State will build and operate independent wireless infrastructure on the neighbor islands to cover ports, airports, and major population centers, the State will, where possible, work to collaborate with the counties to share infrastructure and systems.

The State shall develop a shared 7x24 dispatch center staffed with employees accredited by the Commission on Accreditation for Law Enforcement Agencies (CALEA) Public Safety

Communications Accreditation Program[1]. The State dispatch center should be created and operated in consort with the State's law enforcement community to ensure that it has the culture and objectives necessary to support both day-to-day and emergency operations.

The State will encourage by whatever legal, political, and financial means necessary the radio infrastructure and services partnerships unique to the most isolated archipelago in the world. Hawai'i's agencies cannot get rapid mutual aid from neighboring states. Transfer of assets and personnel from island to island in times of need are often limited to what an airplane can carry. Therefore the State will actively seek and promote non-traditional partnerships with the counties, federal government agencies, the U.S. military, and NGOs that have a role to play in disaster response. The shared ICSD / USCG 'Anuenue statewide digital microwave system and the SSB LMR system shared between the State and the County of Maui are prime examples of mutually beneficial partnerships. However, to avoid violating lease covenants and environmental constraints placed on use permits, the State will seek to minimize any partnerships with for profit entities at radio high sites and/or that involve the use of State radio systems for transport of any for-profit traffic. A notable exemption to this policy is the microwave site sharing agreement between the State and Hawaiian Electric Industries, an agreement that required the approval of the Public Utilities Commission.

The design, operation, maintenance, and acquisition of independent, hardened microwave back haul and its supporting radio facility infrastructure will continue to be the key element that ensures the survivability and viability of the State's wireless programs. Survivable and hardened State backbone and critical spur facility infrastructure and radio links will be designed to survive a Saffir–Simpson Hurricane Scale Category 4 storm, be Seismic Zone 4 compliant regardless of county of location, and be able to operate for seven days (one week) without commercial power. Geographic, cultural, environmental, view plane, and land use constraints have often caused radio facilities to group together in close proximity at the limited locations available. The detrimental result has been path congestion such that microwave frequency resources, i.e. channels suitable for systems to use for long over water paths between islands, are almost completely committed on critical paths statewide.

The program will provide coordination, oversight, and comprehensive Radio program direction for all Radio matters across the State. This will support OIMT mission goals by focused use of funding, increased accountability, reduction of complexity and duplication, and enhancing functional integration and interoperability as well as the establishment of a statewide enterprise architecture. This single focus point will also permit increased alignment between State radio resources with OIMT enterprise initiatives. Support will be provided to agencies to aid in successfully complying with the various DHS-OEC reviews. The program will conduct improved oversight of the new procedures and training, which will decrease State risk and provide standardization and better interoperability. It will also provide support to all agencies on the system to comply with licensing and interoperability requirements.

Besides emergency first responders and law enforcement, there are a number of other state, local and federal agencies that also need to be able to communicate with one another — transportation, public health, utilities, and public works to just name a few. However, across the country these entities are still plagued by communications interoperability problems. The inability to communicate is a problem that is technical (due to limited and fragmented radio spectrum and proprietary technology), political (due to agencies and jurisdictions and different levels of government competing for scarce dollars, inhibiting the partnership and leadership required to develop interoperability), and cultural (agencies natural reluctance to give up management and control of their communications systems) and must be addressed on all these levels. A well-defined interoperability governance model has been proven to provide the structure needed to bring the players together and promote an environment that helps bridge the gaps created by these obstacles.

IT/IRM PROCESS REENGINEERING

The business and IT/IRM project is to conduct an integration study of the various HIT initiatives into an enterprise architecture. The benefit of the project is to gain deeper understanding of the overall business process for health services delivery and how best to align technology to support healthcare transformation. This project is critical in laying the foundation for information sharing that would allow for informed policy making. Additionally, this project can help HIT initiatives avoid costly efforts for future information sharing integration into a potential State HIT hub.

The following projects have been identified for IT/IRM process reengineering:

- Shared Services (e-Mail as a Service in the Cloud)
- Data Center Consolidation
- One Network
- Agile Software Development Environment

[1] *http://www.calea.org/content/public-safety-communications-accreditation*

SHARED SERVICES (E-MAIL AS A SERVICE IN THE CLOUD)

Cloud computing has a demonstrated track record of cost savings and efficiencies. Email in the Cloud reduces additional cost and complexity (according to Center for Digital Government) and allows for employees to have a modern, robust email and collaboration platform that better supports our mission and an ability to support a mobile work force.

The IT/IRM BPR for e-Mail in the Cloud (statewide enterprise project) can provide for an easily accessible suite of services, including email and collaboration tools, to facilitate a more mobile work force. The migration can result in significant savings over the next five years when compared to current staff, infrastructure, and contract support costs. Examples include:

- State Government examples include Wyoming, Colorado and California. Wyoming saves $1m per year from Google apps with 10,000 employees (http://www.google.com/apps/intl en/government/index.html). Colorado is expected to save $2 million per year (http://googleenterprise.blogspot com/2012/03/colorado-is-newest-state-to-go-google.html.) Alabama is expected to save $3 million annually with increased reliability and higher security.
- Federal Government examples include GSA and USDA. GSA's move to cloud-based email and collaboration tools is part of a government-wide effort to utilize more agile, lightweight technology such as cloud computing and shared services to limit the need for expensive, redundant infrastructure. GSA's cloud email is in step with the Administration's 'cloud first' strategy and demonstrates that agile, secure, reliable, and cost effective cloud options exist to rapidly improve agency operations and services. GSA saved $50 M over 5 years for approximately 20, 000 users with more capacity and increased features for all users by going to Google from Lotus Notes. USDA was able to consolidate 21 systems into one Microsoft system for 120, 000 users with an increase of 400% in capacity and increased capabilities with $6 million in savings per year ($8/user/month now versus $13/user month before).

12-month Analysis Phase

Hawaii has a great opportunity to save money by committing to migrate to the cloud for e-mail service with guaranteed Service Level Agreements (SLAs). This IT/IRM BPR E-mail-in-the-Cloud Project would be implemented in the following steps:

- Validate and finalize Inventory of all e-mail accounts and capabilities in State (2 months)
- Verify Analysis of baseline capabilities required and benchmark against other known projects that have successfully implemented e-Mail in Cloud in Government (2 months)
- Complete Acquisition Package (2 months)
- Prepare Administrative Directive/Executive Order for Governor to mandate all State of Hawaii Agencies to integrate under Enterprise Project and move funds as offsets and nor renew contracts (1 month)
- Leverage $ 2 B GSA IDIQ Contract for Federal/State/Local Tribal Governments for E-Mail in the Cloud to complete task order under competed contact to realize savings (3 months) or go through SPO Process for new RFP (9-12 months)

The anticipated project timeline is as follows:
July 2012 – TBD

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	June
1	Validate and finalize	■	■									
2	Complete Acquisition			■	■							
3	Prepare Administrative Directive					■						
4	Transition Schedule					■						
5	Cloud deployment						■	■	■	■	■	■

Benefits:

- Lower Cost (up to 50% savings if integrated as one enterprise)
- Flexibility/Scalability
- Reliability
- Rapid deployment of the latest technology
- Compliance
- Interoperability
- Security
- Disaster recovery/Business Continuity

This would include value added features such as:

- Training
- Integration to mobile devices (iPhone, Blackberry)

DATA CENTER CONSOLIDATION

Data Center Consolidation has a demonstrated track record of cost savings and efficiencies in Industry and Government. The IT/IRM BPR for Data Center Consolidation (statewide enterprise project) can result in up to 20 percent savings over the next five years when compared to current staff, infrastructure, and contract support costs.

State government examples include Utah (36 data centers into 2 data centers with $4 million annual savings) with reduced energy usage and improved performance.

Federal Government examples include all 18 Cabinet departments consolidating 2094 Data Centers and reducing them by 40% over 5 years as mandated by the White House. Progress against plan can be viewed at http://www.cio.gov/modules/datacenters/

The OIMT data center teams visited 26 Departmental data centers, server rooms, server closets, and telecommunications rooms plus two commercial data center facilities. During the visits, the OIMT Team asked each Department to complete a 75-question survey regarding their data center security, processes, and controls. OIMT found issues in physical security, environmental controls, personnel considerations, communications networks, computer usage and access/data/file controls.

Hawaii's 26 Data Centers can be consolidated into 5 fully connected, fully load shared, fully redundant data centers (two in Oahu, and one in each in Kaua'i, Hawai'i, and Maui) over 10 years. We do not know what we currently spend per year for Data Centers in Hawaii due to poor IT/IRM and financial data and process management (hence the need for supplemental requests). However, we have studied benchmark data from Industry and Government and it is anticipated that the State would save 20% over 10 years if we were to agree to go into a five Data Center concept. The administration has already decided that the first DOE data center planned for implementation in a vacant school will now be integrated into a State Data center (first of five) this year with collaborative pooling of resources. Similarly, this effort would study the expansion/scalability of the first data center in Oahu and the selection of the second data Center in Oahu.

12-month Analysis Phase

This IT/IRM BPR effort for Data Center Consolidation would implement the following steps:

- Validate and finalize Inventory of all data center equipment, people and contracts in State, perform dependency, capacity, and obsolesce analysis (2 months)
- Verify Analysis of baseline capabilities required and benchmark against other known projects that have successfully implemented Data Center Consolidation in Government (2 months)
- Complete Acquisition Package for second data center (2 months)
- Prepare Administrative Directive/Executive Order for Governor to mandate all State of Hawaii Agencies to integrate under Enterprise Project and move funds as offsets and not renew contracts (1 month)
- Go through SPO Process for new RFP (9-12 months

The anticipated project timeline is as follows:

July 2012 – TBD

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	June
1	Validate and finalize											
2	Complete Acquisition											
3	Prepare Administrative Directive											
4	Transition Schedule											
5	Cloud deployment											

Benefits:

- Cost Savings/Revenue Enhancement:
- Lower Cost (up to 20% savings over 10 years if integrated as one enterprise)
- Greater Flexibility/Scalability
- Greater Reliability
- Rapid deployment of the latest technology
- Better Security
- Improved Disaster Recovery/Business Continuity

ONE NETWORK

The network project is to engage in service optimization that will position the State of Hawaii for higher capacity, better reliability and cost reduction. In the current State of Hawaii network infrastructure there exists technical limitations of a host circuit design that poses performance issues negatively impacting services reliant on network performance. Ultimately the limitation impedes potential for more productive work by employees using the system on the network.

The benefit of this project is that it positions our infrastructure to provide higher capacity needs, while improving performance reliability and reducing ongoing costs. This initiative also positions the State of Hawaii's infrastructure for cloud computing, high bandwidth applications and centralization of computing services.

The project will help eliminate circuit costs for departments, reducing State network costs.

The anticipated project timeline is as follows:
July 2012 – May 2013

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	Acquisition	■	■	■									
2	Service Implementation			■	■								
3	Deployment					■	■	■					
3	Department Circuit Migration*					■	■	■	■	■	■	■	
4	Project Close-out											■	

*Departmental participation required

AGILE SOFTWARE DEVELOPMENT

The software application project is to develop internal capacity as a precursor for the modernization and innovation of business-focused software application. The project is composed of training, development labs, software development tools acquisition and the establishment of an environment for collaborative development. The objective is to adopt and adapt software development methodology for a disciplined and agile approach that will yield consistent quality, inter-operable applications, scalability and shorter time to service.

Training

ID	Milestones	2012 Jul	Aug	Sep	Oct	Nov	Dec	2013 Jan	Feb	Mar	Apr	May	Jun
1	Software Development Life Cycle Training (20)	Training of State Personnel will occur as Training Sessions from Vendors, become available and state personnel are free to attend.											
2	Programming Language Training (20)												
3	Web-Based Programming Language Training (20)												
4	Mobile Device Programming Training (10)												
5	Quality Assurance Training (20)												
6	Secure Software Development Training												

Software Development Tools

ID	Milestones	2012 Jul	Aug	Sep	Oct	Nov	Dec	2013 Jan	Feb	Mar	Apr	May	Jun
1	RFP												
2	Award & Contract Negotiation												
3	Hardware/Software Acquisition												
4	State Team Formation/Kick-Off												
5	System Configuration												
6	System Test												
7	Production Deployment												
8	Project Close-out												

CYBER SECURITY:

This funding request is intended to address immediate weaknesses in the State's cyber security architecture that require enhancement, updating or implementation to bring the cyber security infrastructure up to current technology standards and begin to build the foundation for the future cyber security 'Defense in Depth' strategy in protecting State of Hawaii information assets

The anticipated project timeline is as follows:
July 2012 – June 2013

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	Network Infrastructure Review	Procurement –>					Implementation –>						
2	Laptop/Mobile Device Encryption			Procurement –>				Implementation –>					
3	Back Office Devices				Procurement –>			Implementation –>					
4	Security Operations				Implementation –>								
5	Public Safety	Procurement –>			Implementation –>								

The OIMT and IPSC requests are complementary in nature in that each one addresses different specific deficiencies in the securing state systems, putting in place proven best practices in providing protection of personal or sensitive information. Both requests are priority items for the State.

COLLABORATION:

This enterprise collaboration tool pilot will provide an environment for knowledge acquisition, creation, and transfer, which will result in increased operational capacity for the State of Hawaii, while positioning it to scale for future statewide use. A collaborative project environment will be available via current resources in September 2012.

The anticipated project timeline is as follows:
July 2012 – June 2013

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	RFP												
2	Award & Contract Negotiation												
3	Hardware/Software Acquisition												
4	State Team Formation/Kick-Off												
5	System Configuration												
6	System Test												
7	Production Deployment												
8	Training												
9	Project Close-out												

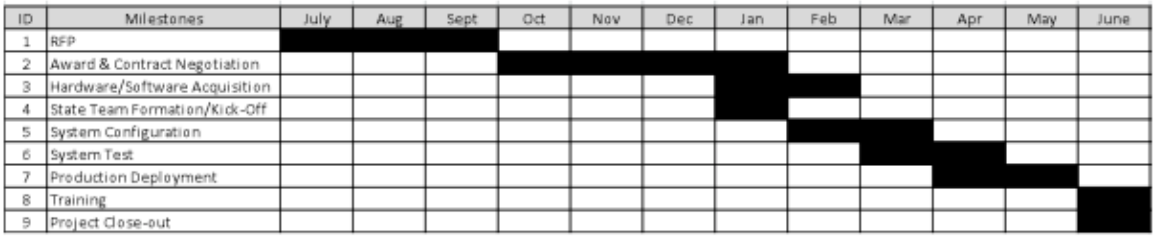
Benefits:

The budget request for the Cyber Security project does not have any revenue opportunities or direct cost savings. However, the request will prevent public embarrassment of the State, loss of staff productivity, or a large unbudgeted settlement resulting from breaches of the State's systems, such as the recent UH settlement for $550,000, the media coverage of the leakage of the personal information of the APEC Host Committee members, and the intrusion into the State Procurement Office's website.

UNIFIED COMMUNICATIONS:

A unified communications solution would offer a wide-range of communications functionality, as well as cost-savings, improved operational efficiency and increased employee productivity. A pilot project with Information Communications Services Division (ICSD) that currently uses older and aging technology (i.e. PBX system) will allow the State to demonstrate the increased capabilities that could be realized while reducing recurring costs.

The anticipated project timeline is as follows:
July 2012 – June 2013



ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	RFP												
2	Award & Contract Negotiation												
3	Hardware/Software Acquisition												
4	State Team Formation/Kick-Off												
5	System Configuration												
6	System Test												
7	Production Deployment												
8	Training												
9	Project Close-out												

Benefits:

For the two projects described above, collaboration and unified communications, there will be no savings in FY 2013 during the investment and service implementation phases. In subsequent years, we expect to improve interdepartmental collaboration and coordination as part of the IT/IRM transformation effort.

The project will provide opportunities to minimize expenses.

Examples of factors for quantifying expenses relating to a meeting include:

- Travel time
- Fuel cost (increasing gas price)
- Vehicle maintenance
- Opportunity costs of employee productivity.
- Document versioning (knowledge improvement)
- Time to information access (i.e. search internal State resources)
- Time to information contribution (i.e. document version update, remote IT support to see user problem)

GEOSPATIAL INFORMATION SYSTEMS (GIS):

Funding this request will make it possible for State agencies to always have direct access to the most current and accurate geospatial data in their mapping and analysis. The development and publishing of metadata and map services as part of the geoportal will make the most common data layers and geospatial tasks available to GIS users and non-users alike, both within and outside of State government (e.g. is property xyz located within an enterprise zone or on A or B lands?).

The anticipated project timeline is as follows:
July 2012 – June 2013

ID	Milestones	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	Hire Personnel												
2	Hardware/Software Acquisition												
3	RFP-Database Conversion (DB)												
4	DB Award & Contract Negotiation												
5	Database Conversion												
6	DB System Configuration												
7	DB System Test												
8	DB Production Deployment												
9	RFP-GeoPortal (GP)												
10	GP Award & Contract Negotiation												
11	GP Configuration												
12	GP System Test												
13	GP Production Deployment												
14	Training												
15	Project Close-out												

Benefits:

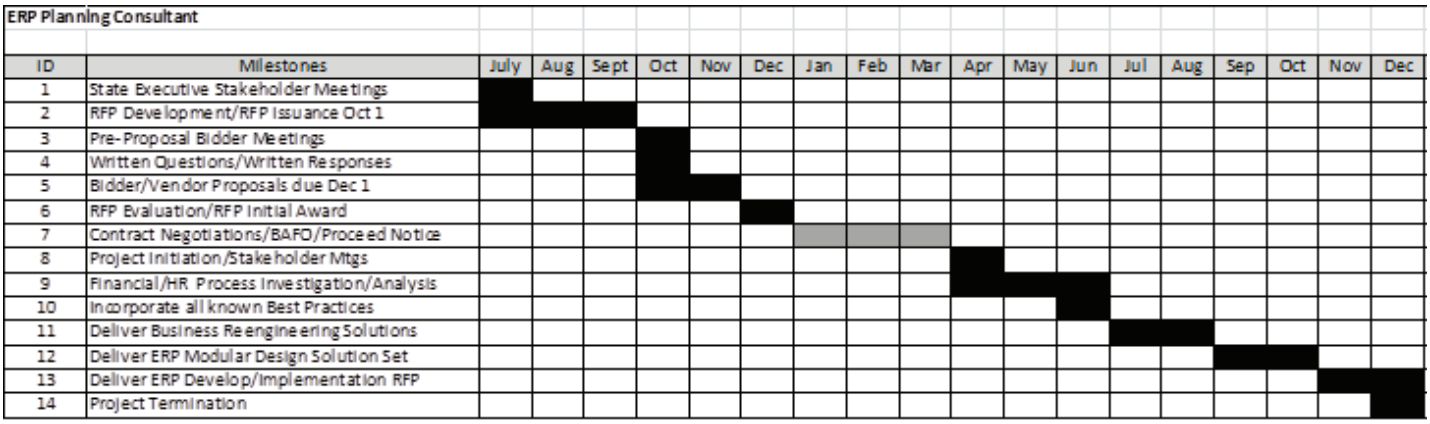
There will be cost savings as a result of funding the GIS request, however these savings are difficult to measure, as they are primarily related to greater efficiency and accuracy when using geospatial data and performing geospatial analysis. For example, because there is not a readily accessible enterprise GIS database, agencies are storing and using multiple, often outdated geospatial data layers in their own agencies or programs.

ENTERPRISE RESOURCE PLANNING (ERP):

According to Gartner, the top three reasons for moving to a statewide Enterprise Resource Planning (ERP) solution are:

- Better decision making through the use of better information resources;
- IT modernization to replace obsolete legacy systems; and
- Enable the State to significantly improve constituent services through faster processes and more accurate and complete information.

The anticipated project timeline is as follows:
July 2012 – December 2013



The ERP efforts the State is undertaking will require the services of a knowledgeable and experienced consulting firm. The future statewide ERP solution must address:

- All funding appropriations by means of financing
- All financial expenditures by Lines of Business
- All human capital resources
- All fixed asset resources and inventory
- Time and attendance
- Payroll
- Procurement
- All financial and management reporting requirements

This planning and investigative effort is to have the selected consultant firm(s) to conduct the following activities in Phase 1 of the ERP systems analysis:

- In-depth analysis by subject matter experts (SMEs) of current statutes, policies, procedures, business practices and workflows of the various lead agencies.
- The Departments of Budget and Finance (B&F), Accounting and General Services (DAGS), Human Resource Development (DHRD) and Taxation (DoTAX) will be interviewed, asked for documentation, and share actual work processes with the consultants for review and analysis. Requirements gathering from other departments to determine agency level processes.
- Identification and development of SMEs within B&F, DAGS, DHRD, and DoTAX to continue implementation of solution.
- Detailed review of the State's legacy systems, including ITIMS (DoTAX), FAMIS (DAGS), PeopleSoft (DHRD), and Great Plains (B&F), currently in use to determine maturity level and sustainability for the long-term.
- Review of data currently being collected to determine solutions for data sharing between agencies.
- Provide recommendations to improve the existing workflow or processes through Business Process Reengineering efforts to maximize efficiency and productivity to be incorporated into the future ERP design.
- Comprehensive analysis and comparison of other states' ERP execution, including detailed review of RFPs and implementation plans, for best practices.
- Full review of empirical data gathered from agencies to develop recommendations of the available options for ERP systems and other solutions that best meet the needs of the State of Hawaii.
- Develop the RFP(s) and assist the State in evaluation and selection of solutions.

Various alternatives will be comprehensively evaluated when the ERP Planning Phase Consultant delivers the Business Reengineering Solutions, Modular Design Solutions, Implementation Roadmap and Transition/Sequencing plans to the Executive Committee members. The committee members (B&F, DAGS, DHRD, TAX, etc.) will collaboratively debate and best decide in the state's best interest the priority, approach, sequencing and implementation phases that will be based upon short and long-term costs and/or benefits.

Additionally, the review of other states' ERP implementations will provide guidance on anticipated challenges, lessons learned and best practices for Hawaii.

An ERP business blueprint creation is another deliverable to design and implement an effective ERP solution. This blueprint will incorporate the best practice methodologies required to successfully design, develop, implement the project and support the ongoing operations of this statewide investment. Some critical path items include:

- Ensure Executive stakeholders', buy-in and support.
- Identify lead agency champions from DBF, DAGS, DHRD, TAX
- Identify lead project team members
- Establish an Executive Charter for governance
- Develop an Organizational Change Management program
- Identify Key Performance Indicators (KPI) for effective Financial & HR management
- Define components that can be modularly implemented for building block sequencing
- Assist the Project Management Office
- Review legacy Application Systems (Payroll, FAMIS, HRMS, FAIS, FMS, etc.).
- Review legacy data DBF, DAGS, DHRD, TAX plan data conversion
- Finalize Design and finalize the development & implementation RFP.

In FY 2013 and in FY 2014-2015, there will be no direct cost savings or revenue generation realized through the ERP project as it will be in the planning and early development/ implementation phases.

However, the benefits of a Statewide ERP System will greatly enhance Executive Branch, Legislature and Citizen access to their government's financial portfolio. As stated on numerous occasions, the top three reasons for moving to a statewide ERP solution were: (1) timely and effective decision making through the use of better information resources; (2) IT modernization to replace obsolete legacy systems; (3) enabling the state to significantly improve government operations, employee productivity and constituent services through faster processes and more accurate and complete information.

OIMT will actively be pursuing parallel initiatives that will provide quantitative return on this investment.

Time and Attendance System/processes, the current Payroll System/processes that include Data Entry services or the current practice of printing checks for Statewide Payroll, Unemployment Insurance, Child Welfare Services, Child Support or statewide vendor payments are ideal candidates for early reengineering efforts. This would provide opportunities to reduce costs, increase staff productivity and improve constituent service delivery.